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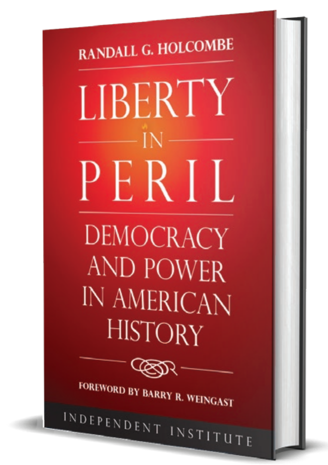

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Five Market-Friendly Nobelists

Friedman, Stigler, Buchanan, Coase, and Becker

CHARLES K. ROWLEY

The Nobel prizes were initiated in 1901 in physics, chemistry, medicine or physiology, literature, and peace. In his will, Alfred Nobel stipulated that prizes in the first three categories should be given to those who have made the most important discovery, in the field of literature to those who have produced the most outstanding work of an idealistic tendency, and in the field of peace to those who have done the most or the best work for fraternity between nations.

In conjunction with its tercentenary celebration in 1968, the Central Bank of Sweden instituted a new award: The Central Bank of Sweden Prize in Economic Science in Memory of Alfred Nobel. The award is designed to be given according to the same principles and rules as the original Nobel prizes. The bank had to overcome serious doubts expressed by the Royal Swedish Academy of Science about whether economics was sufficiently scientific to warrant a prize on the same footing with prizes in the hard sciences. Gunnar Myrdal, a member of the Swedish Academy, who would win the Prize in Economic Science in 1974, played a major role in gaining the support of the academy for the new award.

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The basic idea of the original Nobel prize is to recognize *specific achievements* rather than *outstanding persons* (Lindbeck 1985, 38). This is clearly set out in Nobel's own formulation that the prizes should be awarded for "discoveries," "inventions," and "improvements" in the natural sciences. Indeed, according to Nobel's will, the prizes were to be given to "those who, during the preceding year, shall have conferred the greatest benefit on mankind." None of the awarding authorities has honored that particular clause. However, they have all adhered to the idea of rewarding specific scientific achievements rather than outstanding scientists.

It is quite clear from the statutes that the prize in economics should be granted for specific contributions. If this principle were strictly adhered to, scholars with narrow research profiles who have made a single pathbreaking contribution would be favored over all-round scholars who have made several important contributions but no pathbreaking one. In economics, with the possible exception of Robert Lucas, no young economist has succeeded in winning the prize on the basis of a single youthful contribution. Again in economics, with the exceptions of Arthur Lewis and Ronald Coase, no economist has succeeded in winning the prize on the basis of a slim volume of publications.

The procedures for choosing the winner of the economics prize are the same as for the original Nobel prizes. Each October, professors of economics at about seventy-five institutions worldwide are invited to nominate candidates for the prize. The nominations must reach the Swedish prize committee, which consists of five members (plus possible associates), before the end of January. Members of the prize committee and members of the Royal Swedish Academy of Sciences also may submit nominations. No other nominations are ever considered.

The prize committee is guided in its evaluations by its own assessment of the quality of the nominations received. On this basis, the committee commissions two or more expert studies, usually by non-Swedish scholars, of each of the most prominent candidates. The prize committee eventually submits a prize proposal to the "social science class" of the academy, together with an extensive survey and a detailed analysis of the various candidates and an elaborate justification of the choice made. The expert studies form part of the report. The prize committee operates on the principle of unanimity, achieving consensus after intensive discussions.

In mid-October the report finally reaches the plenary meeting of the academy, where the prize committee justifies and defends its proposal. The prize is finally decided by simple majority in a secret ballot in this plenary session, where all Swedish members of the academy (260 persons) may vote, if they are in attendance, for any person who has been proposed by a nominator. Immediately following the ballot, the prize is announced, and a press release of two or three pages describes the honored contribution (Lindbeck 1985, 45–47).

In this article, I consider the careers (briefly) and the contributions cited by the Royal Academy of five winners of the Nobel Prize in Economics, as it is commonly known. I order my evaluations by the dates of the prize awards: Milton Friedman, 1976; George J. Stigler, 1982; James M. Buchanan, 1986; Ronald H. Coase, 1991; and Gary S. Becker, 1992. Because these Nobel laureates are viewed as among the foremost supporters of free-market economics of the twentieth century, I also attempt briefly to evaluate their contributions to classical liberal political economy.

Milton Friedman

Milton Friedman was born in 1912 in Brooklyn, New York, the only son and the youngest of four children of Carpatho-Romanian Jewish immigrants who initially worked in sweatshops while they established themselves in the New World (Friedman and Friedman 1998).

Friedman won a scholarship to Rutgers University in 1928 and worked his way through college, graduating with a B.A. in mathematics and economics in 1932. At Rutgers, Friedman met two extraordinary scholars, Arthur F. Burns and Homer Jones, who introduced him to rigorous economic theory and the highest scientific standards.

Milton Friedman

In 1932, Friedman won a scholarship to study economics at the University of Chicago. In his first quarter at Chicago, he took a class from Jacob Viner, then arguably the best price theorist in the United States. That class revealed to Friedman the logical and coherent nature of economic theory. Because the students were seated alphabetically, it also introduced him to his future wife and co-author, Rose Director. During Friedman's masters program, the university's faculty included Frank Knight, Lloyd Mints, Henry Simons, Paul Douglas, and Henry Schultz. Friedman completed his masters degree at Chicago in 1933.

In that same year, Friedman accepted a scholarship to study at Columbia University, where he came under the influence of a much more institutional and empirical approach to economics than was in vogue at that time at Chicago. At Columbia he benefited greatly from his association with Harold Hotelling, Wesley C. Mitchell, and John Maurice Clark. That one-year visit gave Friedman an abiding interest in high-quality empirical research.

Then came a difficult period in which Friedman moved from temporary job to temporary job, always scrambling to obtain a permanent position in the American academy. That scramble ended only in 1946, when he became an associate professor of economics at the University of Chicago.

During a stint at the U.S. Treasury from 1941 to 1942, Friedman made the worst intellectual mistake of his career. He helped to devise a scheme for withholding income tax at the source of the income. The introduction of the withholding tax is arguably the most important cause of the growth of government in the United States during the second half of the twentieth century, because the withholding tends to obscure the full annual federal and state tax liabilities of individual taxpayers. For classical liberals, the lesson is that one should not be overly concerned to make government efficient, especially in its role as tax collector.

Although Friedman's early career was a patchwork of short-term appointments, it formed the basis for all his subsequent work. Well versed in mathematics and statistics, formidably well trained in economic theory, and well experienced in economic policy making, Friedman was uniquely equipped to confront a postwar economics profession obsessed by Keynesian theories of macroeconomic policy, heavily influenced by socialist dogma, and disillusioned with classical political economy.

In 1945 and 1946, Friedman spent a year as associate professor of economics at the University of Minnesota, where he collaborated with Stigler on an article entitled *Roofs and Ceilings,* which exposed the inefficiency of rent controls. In 1946, Friedman succeeded Viner in teaching microeconomic theory at Chicago. He was promoted to full professor in 1948. In 1963 he was appointed Paul Snowden Russell Distinguished Service Professor of Economics, a position he held until his official retirement from the University of Chicago in 1982. Since then, Friedman has been a senior research fellow at Stanford University's Hoover Institution.

When Friedman was awarded the Nobel Prize in Economic Science in 1976, he was cited "for his achievements in the fields of consumption analysis, monetary history and theory and for his demonstration of the complexity of stabilization policy." I now proceed to review those areas of his research program, concluding with a more general assessment of his contribution to political economy.

During his early years at Chicago, Friedman, under the influence of Knight, formulated a strongly held view that economics ought to be practiced as a positive science with a methodology significantly different from that in vogue at the time. In particular, he was not impressed by the view, advanced by Lionel Robbins in the 1930s, that the veracity of economic theory should be tested primarily by the correspondence between its assumptions and the facts. In 1953, he advanced a radically different view of the proper methodology of economic science.

In a famous article, "The Methodology of Positive Economics" (1953), Friedman argued that the realism or unrealism of the assumptions of economic theory is no guide to its usefulness. As in the natural sciences, theories should be accepted or rejected (always provisionally) only on the basis of the degree of correspondence of the predictions of a theory with the facts. In this fashion, Friedman sought to apply the methodological ideas of Karl Popper, which had been developed with reference to the natural sciences, to the science of economics.

Although the essay arguably was overly cavalier in dismissing the factual basis of a theory's assumptions, and although the ruthless test proposed by Friedman—a single counterexample to its predictions will falsify a theory—arguably was somewhat rash, the substance of Friedman's essay has stood the test of time and has profoundly influenced the nature of economic research.

Nowhere is the power of that methodology more apparent than in the book many economists consider to be his greatest technical contribution, *A Theory of the Consumption Function* (1957). Crucial to Keynesian arguments in favor of government fiscal intervention to move an economy from a slump to a full-employment equilibrium was the notion of the consumption function, a stable relationship between household consumption expenditures and current household income. The government could exploit this function, increasing household incomes by increasing government expenditures, and thereby achieve a leveraged impact on the macroeconomy through the multiplier mechanism.

Friedman demonstrated that the Keynesian concept of household behavior was fundamentally flawed and that any leveraging achieved by government expenditure through the multiplier process was much smaller than had been asserted. His theoretical insight is known as the permanent-income hypothesis. It asserts that households adjust their expenditures only to perceived changes in their long-term expected, or "permanent," income; transitory variations in income have little effect on contemporaneous consumption spending.

The care with which Friedman amassed, organized, and interpreted data, in combination with the integrity of his scholarship as he diligently searched for evidence that might—but did not—falsify his theory, set a new standard for empirical economics (Walters 1987, 423). The concept of permanent income has entered into virtually every field of applied economics, transforming all earlier work that relied on current household income as an explanatory variable.

The period from 1956 to 1975 witnessed the monetarist revolution that ultimately led to the demise of Keynesian economics, a much reduced role for government fiscal policy in the management of the macroeconomy, and a much greater reliance on monetary policy. Friedman's scholarship had a great deal to do with those changes, although he himself was no proponent of active monetary policy because his empirical analysis indicated that it typically exerted a destabilizing short-run influence on the macroeconomy.

The quantity theory of money had played an important role in classical economics. Using the behavioral equation $MV = PY$, classical theorists argued that the income velocity of circulation of money, V, was a constant; that real income, Y, was unaffected by changes in the quantity of money (the so-called classical dichotomy); and therefore that changes in the supply of money, M, directly affected the price level, P. That view was derided by the Keynesians, who argued instead that *V* was not a constant. In their view it was highly variable and acted as a cushion preventing any change in the supply of money from exerting an impact on either real income or the level of prices.

In a book he edited, *Studies in the Quantity Theory of Money* (1956), Friedman and his co-authors attempted to rehabilitate the quantity theory, respecifying it with reference to a stable demand for money. No longer was *V* presumed to be a constant; instead it was taken to be a stable function of several variables. In this framework, *V* was seen as responding to a monetary expansion in the short run by reinforcing rather than cushioning the impact of such an expansion on the right-hand side of the equation.

Although some of the empirical papers in the 1956 volume tended to support the restated quantity theory, most economists reacted with skepticism, arguing that the supply of money merely accommodated the demand for money and did not independently affect the system. Once again, Friedman determined that the controversy could be resolved only through painstaking research. The result of that research was a monumental book co-authored with Anna Schwartz, *A Monetary History of the United States, 1867–1960* (1963), which offered substantial support for the restated quantity theory and, moreover, explained the Great Depression in the United States as primarily the result of disastrous monetary mismanagement by the Federal Reserve System.

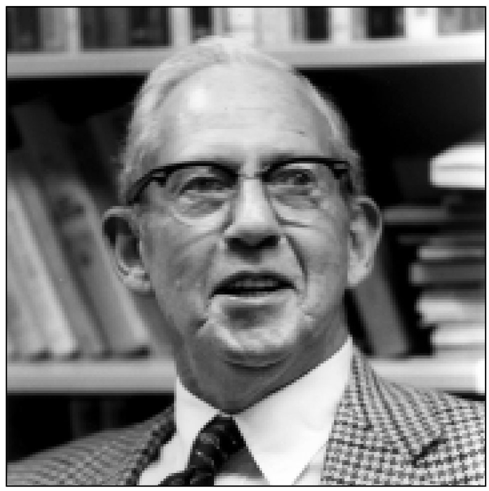
Subsequent research by Friedman determined (1) that the impact of a fiscal deficit on nominal income is short-lived, whereas after a lag an increased rate of growth of the money supply permanently augments the rate of inflation; (2) that the adjustment of nominal income to an increased rate of monetary growth occurs with long and variable lags, making short-run monetary management a dangerous, predictably destabilizing policy instrument; and (3) that in the long run, additional monetary growth affects only the rate of inflation and has virtually no effect on the level or the rate of growth of real output (Walters 1987, 425).

In his 1968 presidential address to the American Economic Association, "The Role of Monetary Policy," Friedman effectively destroyed the Phillips curve hypothesis central to Keynesian policy analysis, which had presupposed a stable functional relationship between the level of unemployment and the rate of price inflation. By reemphasizing the classical theory of labor-market equilibrium, Friedman demonstrated that the expectations-augmented Phillips curve was unstable in the short run unless the economy operated at the natural rate of unemployment, and that the Phillips curve was vertical in the long run.

That insight, together with Friedman's justification for a nondiscretionary rate of increase in the money supply at the economy's underlying rate of growth of productivity, are two concepts for which Friedman is likely to be long remembered.

Friedman's contribution to political economy goes well beyond the areas for which he was cited by the Nobel Committee. No Swedish committee at that time was likely to cite as a substantive contribution the case he made for restoring economic freedom in *Capitalism and Freedom* (1962). In unfolding reality, those arguments have been the most important contribution Friedman, along with his wife Rose (Friedman and Friedman 1980), has made to the well-being of countless people across the globe. Friedman's firm voice in defense of freedom, which penetrated the citadels of coercion and gave oppressed humanity hope for a freer and more prosperous future, will be remembered forever.

The one notable weakness in Friedman's scholarship is the absence in his writings of any positive theory of the state. That lacuna has entailed that Friedman has been forced to fight on the defensive, even in *Capitalism and Freedom,* against the market-failure arguments of the new welfare economists. At most, he could skillfully deflect interventionist arguments by suggesting more market-friendly measures, for example, by supporting the use of vouchers rather than public provision to remedy alleged externalities in the education market. The leveling of the intellectual playing field by means of a comparative-institutions analysis of market failure versus political failure has been the particular achievement of the Virginia rather than the Chicago School.



George J. Stigler

George J. Stigler

George Stigler was born in Renton, Washington, in 1911 of European immigrant parents—his father was from Bavaria and his mother from Austria-Hungary. Until he was three years old, he spoke only German. He attended public schools in Seattle and read insatiably on his own (Becker 1993b, 761). He graduated from the University of Washington with a bachelor's degree in business administration in 1931, intending to go into business. In the depths of the Great Depression, that intention was not to be fulfilled. Instead he enrolled at Northwestern University, graduating with an M.B.A. in 1932, now with some knowledge of economics and an interest in pursuing an academic career.

A major turning point in his career came with his enrollment at the University of Chicago in 1933 to pursue a doctorate in economics. Chicago had an outstanding economics department at that time led by Knight and Viner. Stigler was one of the few students who wrote his dissertation under Knight's direction. Yet Viner's emphasis on the empirical relevance of microeconomic theory and on the necessity of testing theory against historical and other empirical evidence had a greater long-term impact on Stigler's scholarship (Becker 1993b, 761).

At Chicago, Stigler became close friends with fellow students Milton Friedman and Allen Wallis. His doctoral dissertation, completed in 1938 and published in 1941, represented the first serious attempt to trace the evolution of neoclassical production and distribution theory from 1870 onward. It was immediately hailed as a landmark in the history of economic thought.

Prior to completing his Ph.D., in 1936, Stigler was appointed by Theodore Schultz to an assistant professorship in economics at Iowa State College—one of only two such positions known to his professors at Chicago in that year. In 1938 he moved to the University of Minnesota, where he stayed until 1946, rising from assistant to associate to full professor. His career at Minnesota was interrupted by wartime service with the National Bureau of Economic Research and the Statistical Research Group at Columbia.

In 1946 Stigler left Minnesota for Brown University, and in 1947 he moved to Columbia University, where he remained until 1958. In that year he rejoined Friedman at Chicago, serving as the Charles R. Walgreen Distinguished Service Professor of American Institutions. He remained in that position until his retirement in 1981. In 1977, he became director of the Center for Study of the Economy and the State, where he remained until his death in December 1991.

In 1982 Stigler was awarded the Nobel Prize in Economic Science and was cited "for his seminal studies of industrial structure, functioning of markets and causes and effects of public regulation." I now proceed to review briefly those areas of his research program, concluding with a more general assessment of his contribution to political economy.

Although the Nobel citation does not specifically refer to Stigler's contribution to the economics of information, it is central to almost all his other insights. Prior to the 1950s, mainstream economists paid little systematic attention to the accumulation of information by economic agents in a world characterized by limited and costly information. More than any other economist, Stigler was responsible for rectifying that omission (Becker 1993b, 763).

The hallmark of Stigler's contribution to industrial organization was the application of rigorous microeconomic theory to the analysis of real-world phenomena (Schmalensee 1987, 500). He was as concerned with testing the implications of theory as with developing elegant new models. He achieved his insights without extensive use of mathematics, but with elegant and incisive prose and a brilliant wit.

In particular, Stigler demonstrated that the classic polar models of competition and monopoly could be deployed to yield important insights into the market process. In doing so, he cleared the debris spread by economists such as Edward Chamberlin and Joan Robinson who were determined to deploy complex theories of imperfect competition that yielded few predictions, and he paved the way for the post-1970s invasion of industrial organization by formal microeconomic theory.

Among many important contributions, two widely cited essays illustrate this aspect of Stigler's work. In 1947 he published "The Kinky Oligopoly Demand Curve and Rigid Prices." In that essay, Stigler exposed the theoretical incompleteness and the predictive failures of the kinked-demand-curve model of oligopoly, which purported to explain downward price rigidity in U.S. commodity markets—a rigidity Stigler would later refute empirically (Stigler and Kendall 1970).

In 1964 he published "A Theory of Oligopoly," in which he applied classic cartel theory to the analysis of oligopolistic markets. He argued that the stability of collusive behavior depends on the ability to detect and punish departures from tacit or overt agreements to restrict output. The essay led to a new information-based interpretation of sellers' information, in which the Herfindahl Index assumed a much more prominent role.

Stigler's work on regulation began in 1962. In an essay co-authored with Claire Friedland, he concluded that early state regulation of electric utilities in the United States had no effect on electricity prices. The essay triggered an empirical research program on the economic consequences of regulation. Stigler became increasingly skeptical of the public-interest theory of regulation, and in 1971 he published "The Theory of Economic Regulation," in which he argued that regulation generally arises from the self-interested political activity of organizations that desire to be regulated. That seminal essay triggered a major research program in the economics of regulation.

The insights offered by Stigler into the economics of information, the economics of industrial organization, and the economics of regulation, though in my opinion less profound than those offered by Friedman, will be long remembered, not least because they have provoked and shaped a great deal of research.

From the perspective of classical liberal political economy, however, Stigler must be viewed with some disappointment. Always inclined to deconstructionism, Stigler refused to envisage a role for economists in policy reform—a position that stiffened with the passage of time. Ultimately he became a caricature of himself, advancing the notion that *what is, is efficient* in increasingly unacceptable formulations. His worst paper by far was his last, published posthumously in 1992, in which he argued that "all durable social institutions, including common and statute laws, must be efficient" (Stigler 1992, 459). Perhaps the lesson is that even great scholars should know when to put aside their books and smell the roses.

James M. Buchanan

James McGill Buchanan was born in 1919 in the country village of Gum, near Murfreesboro, Tennessee. He was reared on the Buchanan family farm owned by the estate of his paternal grandfather, John P. Buchanan, who had been governor of Tennessee from 1891 to 1895.

In 1937, Buchanan enrolled at Middle Tennessee State College in Murfreesboro as a day student. Majoring in mathematics, English literature, and social sciences, he earned a B.A. degree in 1940. He then applied successfully for a graduate fellowship in economics at the University of Tennessee at Knoxville for the academic year 1940–41. Although he graduated with a master's degree in 1941, he later claimed that he left Knoxville with no coherent vision of the economic process (Buchanan 1995).

In 1941 Buchanan embarked on four years of active naval duty in the Pacific theater of World War II, spending most of that time on the staff of Admiral Chester Nimitz at Pearl Harbor and Guam. In Hawaii he tracked the movements of enemy ships from an operations room, using string, paper clips, and elementary computations. Evidently, that experience did not enamor him with the usefulness of empirical methods. He was awarded a Bronze Star for distinguished service.

In 1946 Buchanan enrolled at the University of Chicago as an early beneficiary of the GI Bill. During his first quarter, he took courses with Knight, Schultz, and Simeon Leland. Knight's course on price theory converted him from socialism to free-market principles and provided him with a perspective on the market process that had eluded him earlier. From his relationship with Knight, he gained an academic confidence that was not forthcoming from his contacts with more aggressive faculty members such as Viner and Friedman (Buchanan 1995).

James M. Buchanan

After completing his doctoral degree in 1948, Buchanan stumbled across Knut Wicksell's untranslated 1896 book, *Finanztheoretische Untersuchungen,* buried in the dusty stacks of Chicago's old Harper Library. He read the book and was inspired by the nature of its challenge to conventional public finance. In his Stockholm address in 1986, Buchanan acknowledged the fundamental influence of Wicksell's work on the contributions that ultimately earned him the Nobel prize. Elsewhere Buchanan has acknowledged the importance of Knight (Buchanan 1992). The only photographs hanging in his personal study at George Mason University's Buchanan House are those of Knight and Wicksell.

From 1948 to 1950, Buchanan was an associate professor of economics at the University of Tennessee. In 1950 he was promoted to full professor. In 1951 he became a professor of economics at Florida State University. In 1955 he obtained a Fulbright Fellowship that enabled him to study for one year in Italy, where he became acquainted with the Italian scholarship in public finance.

In 1956 he became a professor of economics at the University of Virginia. There, in cooperation with his colleague Warren Nutter, he established the Thomas Jefferson Center of Political Economy. In 1962 he became the Paul G. McIntire Professor of Economics, a position he held until 1968, when he resigned following serious academic disagreement with the left-leaning administration.

Buchanan spent the academic year 1968–69 as a professor of economics at the University of California at Los Angeles, which was then embroiled in serious student unrest. Searching for shelter from the storm, Buchanan retreated to the foothills of the Appalachians, where he occupied the position of University Distinguished Professor at Virginia Polytechnic Institute and State University in Blacksburg from 1969 to 1983. In 1969 Buchanan and Gordon Tullock founded the Center for Study of Public Choice at Virginia Polytechnic Institute and StateUniversity.

In 1983, following disagreements with the department of economics at Blacksburg, Buchanan and Tullock moved the Center for Study of Public Choice in its entirety to George Mason University. In 1998 the Center became part of the James M. Buchanan Center for Political Economy.

In 1986 Buchanan was awarded the Nobel Prize in Economic Science and was cited "for his development of the contractual and constitutional bases for the theory of economic and political decision-making." I review briefly those areas of his research program, concluding with a more general assessment of his contribution to political economy.

It is important to note that Buchanan's Nobel citation did not refer explicitly to public choice but rather focused attention on the contractual and constitutional subset of that much broader discipline. Such a focus is entirely appropriate in light of Buchanan's almost obsessive emphasis on the catallactic-coordination paradigm and his hostility to the allocationist-maximization paradigm employed in much public-choice research. In large part, Buchanan credits Knight for the insights that led him to take the less traveled road.

For Buchanan, public choice is the inclusive term that "describes the extension of [economic] analysis to the political alternatives to markets" (Buchanan 1995, 171). Although he arrived at the public-choice crossroads with the road map provided by Wicksell, it is doubtful that he would have chosen the contractarian path except for the wisdom of Knight. Without the model of politics based on *Homo economicus,* public choice would not exist. Without the conceptualization of politics as exchange, Buchanan could not have made his mark on the literature. His own contribution to the development of the chosen paradigm was his insistence on the assumption of methodological individualism, the notion that only individuals matter in the process of exchange and that there exists no higher order of overriding importance for economic analysis.

In an important essay, "Positive Economics, Welfare Economics and Political Economy" (1959), Buchanan first brought together these ideas to create a model of political economy in which economists, suitably educated in the constitution of economic policy and capable of applying deductive logic to the perceived constraints of politics, might tentatively propose rules that offered a prospect of universal consent. The ideal test for such proposals would be universal consent itself, though Buchanan, like Wicksell before him, recognized that some approximation would be necessary in the real world.

In 1962 Buchanan (with Gordon Tullock) took the constitutional political economy program a crucial stage further in *The Calculus of Consent.* There Buchanan and Tullock demonstrated how self-seeking individuals, faced with the potentially coercive power of the state, may unanimously endorse a constitution from behind the natural veil of uncertainty that surrounds long-term decision making. Because of decision-making costs, such a constitution inevitably would endorse less-than-unanimity rules of political decision making.

Despite its seemingly optimistic message that gains from trade are available in the political marketplace, *The Calculus of Consent* earned Buchanan and Tullock the undying enmity of the would-be philosopher kings who had been riding high on the paradigm of market failure. For, with brilliant insight, the two Virginians had demonstrated that the failures of private markets—whether attributable to externalities, publicness problems, asymmetries in information, or incomplete markets—manifested themselves in a more chronic form in political markets. Thus was the playing field forever leveled. Thereafter, those who sought to protect markets from government encroachment abandoned their defensive posture and went decisively on the offensive.

In 1974, in his seminal book *The Limits of Liberty,* Buchanan responded to the perceived constitutional crisis in the United States with a brilliant defense of constitutional contract based on the threat of Hobbesian anarchy should the social contract collapse. In this, perhaps his best work in constitutional political economy other than *The Calculus,* Buchanan charted the way toward an understanding of how a social contract between free individuals would result in constrained or limited government anchored effectively somewhere between anarchy and Leviathan.

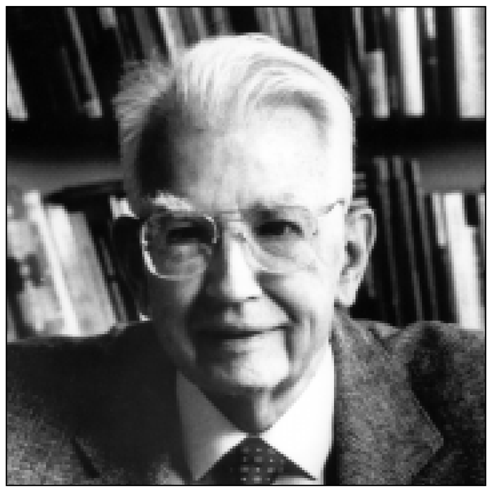
Following these seminal works, Buchanan has not rested on his laurels. In a series of brilliant books and essays he has employed his theory to attack almost every aspect of conventional public economics and to savage elitist social-choice theories. In doing so, he has demonstrated the power of the contractarian paradigm to predict the emergence or reemergence of limited government following the debacle of the twentieth century.

Buchanan's insights into the nature and implications of the contractarian paradigm will undoubtedly live forever in the annals of political economy. Moreover, his technical contributions themselves justify his placement on the honor roll of classical liberal political economy.

Like Ludwig von Mises and F. A. Hayek before him, Buchanan has been successful in relying on purely positive analysis to advance significantly the normative case for limited government, individual liberty, and the rule of law. He has done so not by violating Hume's constraint that one cannot make "ought" out of "is," but by demonstrating that rational individuals, once they perceive what is at stake, will consentaneously rein in the state and allow free markets to function.

Ronald H. Coase

Ronald Coase was born in 1910 in Willesdon, a suburb of London, to parents of modest means who had both left school at the age of twelve. Although they had no understanding of academic scholarship, they were extremely supportive of Coase throughout his early career. His mother imbued him with the importance of honesty and truthfulness—moral principles he has upheld throughout his long and illustrious career.



Ronald H. Coase

After a slow start as a sickly child, Coase recovered well and entered the London School of Economics in 1929 to read for the Bachelor of Commerce degree, graduating from the University of London in 1932 at the trough of the Great Depression. As a student, he was captivated by two books introduced to him by Lionel Robbins. To Frank Knight's *Risk, Uncertainty and Profit* he owes his interest in economic organizations and institutions. To Philip Wicksteed's *Commonsense of Political Economy* he owes his ability to analyze constrained choices without recourse to higher mathematics.

Coase was an assistant lecturer at the Dundee School of Economics and Commerce from 1932 to 1934, assistant lecturer at the University of Liverpool from 1934 to 1935, and assistant lecturer at the London School of Economics from 1935 to 1938. He was promoted to lecturer in 1938 and, following wartime work in the Central Statistical Office, to reader in 1947. In 1951 he was awarded a Doctor of Science degree by the University of London.

In 1951 Coase emigrated to the United States, becoming a professor of economics at the University of Buffalo. In 1958 he moved to the University of Virginia, where he became academically close to Warren Nutter. In 1964 he moved again to become the Clifton R. Musser Professor of Economics at the University of Chicago Law School, where he remained until his retirement in 1981. Since 1982 he has been the Clifton R. Musser Professor Emeritus of Economics and Senior Fellow in Law and Economics at the University of Chicago Law School.

In 1991 Coase was awarded the Nobel Prize in Economic Science and was cited "for his discovery and clarification of the significance of transaction costs and property rights for the institutional structure and functioning of the economy." I briefly review those areas of his research program, and conclude with an assessment of his overall contribution to political economy.

In his famous essay "The Nature of the Firm" (1937), Coase explored why a firm emerges at all in a specialized exchange economy and why the firms that do emerge vary in size and structure. His struggle to find answers to those questions led him to consider transaction costs, and that subject has preoccupied him throughout his subsequent career.

If a command structure such as that of the firm successfully supersedes the price system as a means of resource allocation, it does so, Coase argues, because the cost of using the price mechanism exceeds the cost of using the command system. He then proceeds to analyze the nature of such costs, their implications for the changing size of firms, and their relevance in defining the marginal product of the entrepreneur.

In brief, "the thesis rests on the choice of contracts" (Cheung 1987, 455). An input owner will choose the arrangement that entails the lower transaction costs. Coase's 1937 essay launched the transaction-cost approach to analyzing economic organization, although many years would pass before it received the attention it deserved. Even at the London School of Economics it was largely ignored when it first appeared.

Coase himself applied the transaction-cost approach to the marginal-cost-pricing controversy. In "The Marginal Cost Controversy" (1946), he noted that the cost of subsidizing a natural monopoly that practiced marginal-cost pricing must include the nonproduction costs of administering the system. In such circumstances, there could be no certainty that marginal-cost pricing would provide an efficiency gain over the profit-maximizing outcome. Coase was highly skeptical of the existence of natural monopolies, correctly recognizing, long before economists adopted the concept of contestable markets, that in situations of decreasing cost, competition takes a different form.

For the next thirteen years, Coase turned his attention to monopoly, especially the broadcasting monopoly. From this study the second major insight of his career emerged, though the trigger would be not so much monopoly itself as the apparently chaotic nature of competition in the market for broadcasting rights (Cheung 1987, 456). His classic 1959 essay, "The Federal Communications Commission," launched Coase into economic stardom and led to his move from the University of Virginia to the University of Chicago.

Coase had submitted his paper to the newly established *Journal of Law and Economics*. In it he argued against A. C. Pigou's classic view that in a case of conflicting uses, the party inflicting the damage should be restrained, typically by a Pigovian tax. That prescription is incorrect, argued Coase, because the restrained party also would be harmed in a situation where the harm is reciprocal. The goal of reducing damage could be reached more efficiently through the market itself, by a clear delineation of property rights. The Chicago economists were initially adamant that Coase was wrong, but following a famous seminar a star-studded cast including Friedman, Stigler, Arnold Harberger, Reuben Kessel, Lloyd Mints, H. G. Lewis, and Aaron Director finally admitted defeat and accepted Coase's argument.

A year later Coase published a follow-up essay, clarifying and generalizing the argument of the 1959 article. The 1960 essay, "The Problem of Social Cost," would become the most cited economics article of our time. In view of subsequent confusion, it is important to note that the so-called Coase theorem—the proposition that the allocation of resources will be efficient regardless of how private property rights are assigned—holds only under conditions of zero transaction costs. Coase makes it absolutely clear in the 1960 essay that he does not believe this case to be the typical one. If transaction costs are nontrivial, the assignment of property rights may affect the efficiency of resource allocation. It would have been surprising indeed if a scholar such as Coase, who had spent his entire career analyzing the nature of transaction costs, had ignored such costs in his famous essay. Categorically, he did not do so.

Coase is a modest man who has not presumed to extend his writings more widely into normative areas of political economy. Nevertheless, his contribution to economic freedom has been no less significant because it was unintended. Indeed, the unintended consequences of Coase's scholarship for liberty and free markets have been immense. His work is widely cited by those who argue that a clear delineation of property rights is essential for the efficient performance of an economy, that the common law is superior to direct regulation as a mechanism for dealing with problems of market failure, and that markets can function well even in areas as seemingly chaotic as the use of broadcasting wavelengths. By his profound insights into the workings of the market system, comparable to those of Adam Smith, Coase has made majestic contributions to classical liberal political economy.

Gary S. Becker

Gary S. Becker was born in Pottstown, Pennsylvania, in 1930 of immigrant parents from eastern Europe who had little formal education. He graduated in 1948 from James Madison High School in New York City. He received a B.A. degree from Princeton University in 1951, and an M.A. degree from the University of Chicago in 1953. He completed his Ph.D. work at Chicago in 1955, writing a dissertation on the economics of discrimination, a contribution cited by the Nobel Committee in 1992 as a major contribution to economics.

Becker had published articles in the *American Economic Review* and *Economica* while still an undergraduate student. Viner, who had taught Friedman, Stigler, and Buchanan among many others, called Becker "the best student I have ever had" (Fuchs 1994, 183). At Chicago the major influences on Becker's economic thinking were Friedman, who regards Becker as his favorite student, and Stigler, who became a mentor to Becker, especially after Friedman's retirement from Chicago in 1976.

Despite his brilliance, however, Becker was unable for some two years after graduation to obtain an attractive job offer from other economics departments. He remained at Chicago until 1957, when he was appointed first to an assistant professorship and then to an associate professorship in economics at Columbia University over the period from 1957 to 1968. In the latter year he was appointed to the Arthur Lehman Professorship of Economics at Columbia. Since 1970, he has held a professorship in economics and sociology at the University of Chicago. He is a quintessential product of and a current leader of the Chicago School of economics and continues to guide the political economy program initiated by Stigler in 1971.

Gary S. Becker

In 1992 Becker was awarded the Nobel prize in economics and was cited "for having extended the domain of microeconomic analysis to a wide range of human behaviour and interaction, including nonmarket behaviour." The following is a brief review of some of Becker's research, concluding with a more general assessment of his contribution to political economy.

Becker is blessed with one of the most probing minds in modern economics. His writings have the unique quality of opening up new horizons in economic analysis by relating widely observed but seemingly unrelated phenomena to the operation of a single general principle, namely, the rationality of individual choice (Blaug 1985, 15).

That talent was manifest in his doctoral dissertation, in which he attempted to reconcile the competitive model of labor markets with the observed pay differentials between blacks and whites by introducing a preference for discrimination into the utility functions of both employers and employees. The dissertation, published in 1957 as *The Economics of Discrimination*, initially fell on deaf ears but later sparked a major research program in labor economics.

In his 1964 book, *Human Capital*, he introduced a general theory of human capital formation via schooling and training, again eventually overcoming skepticism in an economics profession overly focused on physical capital formation. In a 1965 essay, "A Theory of the Allocation of Time," he explored the division of labor among members of the family, an institution that economists had previously left to the sociologists. In 1968 he enraged the sociologists and upset many left-liberal economists with his essay, "Crime and Punishment: An Economic Approach," in which he developed a model of the optimal rate of crime predicated on the rational behavior of all agents in the "market" for crime and punishment.

The economic approach consistently deployed by Becker "assumes that individuals maximize welfare *as they conceive it,* whether they be selfish, altruistic, loyal, spiteful, or masochistic" (Becker 1993a, 386). The behavior of such individuals is forward-looking and consistent over time. Tastes are assumed to be fixed, though constraints may change. Different constraints are decisive in different situations, but the most fundamental constraint is limited time. On the basis of these seemingly simple assumptions, Becker has destroyed ongoing research programs in several disciplines and replaced them with the rational-choice approach.

Although he is technically proficient, Becker has made an indelible mark without resorting to high-powered mathematics and without engaging in extensive data-mining by means of sophisticated econometrics. He has shown that a combination of intellectual brilliance, hard work, and the avoidance of consulting (which now consumes much talent in economics) can move mountains not only in his own initially reluctant discipline but across a range of other disciplines markedly less receptive to the economic approach.

Becker's insights into the unity of human action, as perceived through the lens of rational-choice analysis, guarantees him a lasting reputation in economics as well as other disciplines. Though his accomplishments are perhaps less stellar than those of Friedman, Buchanan, and Coase, in my view Becker stands on a par with Stigler.

As a major contributor to classical liberal political economy, however, his reputation is more ambiguous. Undoubtedly a freedom-lover at heart, Becker unfortunately came under the influence of his mentor Stigler during the latter's golden years and allowed Stigler's deconstructionism to influence his own analysis of political markets. Becker's work on political pressure groups especially, based on assumptions that imply that such groups redistribute wealth at minimum social cost, is surely misguided (Rowley 1998). Unlike Stigler, however, Becker still has time to reflect on that aspect of his scholarship and to adjust his model to make its predictions conform better with the evidence. That objective surely should be an agreeable one for a Chicago economist who learned his trade at the feet of Milton Friedman.

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