Progressive Legal Thought

Herbert Hovenkamp, University of Iowa
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Introduction

A widely accepted model of American legal history is that "classical" legal thought, which dominated much of the nineteenth century, was displaced by "progressive" legal thought, which survived through the New Deal and in some form to this day. Within its domain, this was a revolution nearly on a par with Copernicus or Newton. This paradigm has been adopted by both progressive liberals who defend this revolution and by classical liberals who lament it. The model seriously misinterprets the legal revolution that occurred in the early twentieth century.

Classical legal thought is commonly identified with efforts to systematize legal rules along lines that had become familiar in the natural sciences in the early nineteenth century. This methodology sought not only simplification and classification, but also "formalism," in the sense that it presented the law as a complete system. At the risk of some caricature, the "data" of this system were legal decisions -- a model that reflected not only the penchant for classification but also commitment to law as essentially judge made and evolving over long historical development. Historicism

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* Ben V. & Dorothy Willie Prof. Law & History, University of Iowa.


became an important attribute of legal classicism. The Authors who are held up as exemplars of classical legal thought include Gilded Age Harvard Law Dean Christopher Columbus Langdell and Francis Wharton, Episcopal priest and prolific legal writer who produced commentaries on many legal subjects. While classical legal thought was generally anti-statist on economic matters, it was not libertarian. In fact, it advocated heavy state regulation of morals even as it supported liberty of contract without state interference as a general matter. The anti-legislative bias of legal classicism readily accommodated doctrines such as economic Substantive Due Process, which originated in the state courts and was prominent in Supreme Court doctrine for the first four decades of the twentieth century.

The classical-to-progressive model of historical explanation is far too narrow to account for the transformative, broad-based changes in American law that occurred during the decades straddling 1900. These changes were embraced by a wide spectrum of jurists and legal thinkers, both liberal and conservative. Classical legal thought would have collapsed even if progressives had never showed up.

This version of American legal history persists, however, mainly because it serves the interests of both the defenders and opponents of the institutions we associate with progressive legal thought -- namely, the welfare state, increasing public involvement in economic development, the rise of regulatory agencies with broad quasi-judicial and quasi-legislative powers, deferential judicial review of economic legislation, and aggressive

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4 On historicism and classical legal thought, see David M. Rabb, Law’s History: American Legal Thought and the Transatlantic Turn to History (2013).


7 Hovenkamp, Opening, supra note 5 at 243-262.
judicial review of government actions injuring discrete and insular minorities.

American law experienced important changes during the time period from the Gilded Age through the New Deal. The shift in private law away from common law dominance and towards an age of statutes was gradual and decentralized, which makes dating next to impossible. By contrast, the date for the revolution in public law is often conveniently stated as 1937, when the Supreme Court switched positions on both state and federal economic regulation. A year later the Supreme Court announced that federal economic legislation would from that time be treated deferentially, although legislation that injured powerless minorities would be treated more harshly. These views were cemented into constitutional law when President Roosevelt succeeded in filling nearly every seat on the Supreme Court with New Deal supporters.

Setting 1937-1938 as the birth date for progressive public law is problematic, however. Important events occurred much earlier. Throughout the nineteenth century state and local governments were actively involved in the regulation of health, safety, and morals. In the late nineteenth century this regulation reached more expansively to purely economic labor protection and licensing.

Already in 1905 Justice Holmes complained in his Lochner dissent that the revolution had already occurred: the majority's decision striking down a labor hours law "is decided upon an economic theory which a large part of the country does not entertain." Further, Holmes acknowledged, he himself was uncertain about the theory. "I should desire to study it further and long before making up my mind." However, accepting or rejecting the

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11Hugo Black (August 1937), Stanley Reed ( January 1938), Felix Frankfurter ( January 1939), William O. Douglas (April 1939), Frank Murphy ( January 1940), James F. Byrnes ( June 1941, succeeded fifteen months later by Wiley B. Rutledge), Robert H. Jackson ( July 1941), and Chief Justice Harlan Fisk Stone ( July 1941).


13HOVENKAMP, OPENING, supra note 5 at 243-277.
The legitimacy of the underlying economic theory was not part of his role as a judge. Over the next thirty years the Supreme Court struck down several state statutes and some federal ones, implicitly rejecting this emergent economic theory, but many of them were overturned by very narrow majorities, particularly those involving state law.

The record on federal legislation also shows a much earlier evolution. First, the history of federal railroad regulation and the Interstate Commerce Commission stretches back to the 1880s, and of antitrust enforcement to the 1890s. In 1918 the Supreme Court struck down the first federal child labor statute under the Commerce Clause and Tenth Amendment, applying the well developed distinction between "commerce" and "manufacturing." The decision was 5-4, however, which was a different judicial split than the 8-1 decision that had applied that same rationale in an antitrust case 23 years earlier, or the unanimous decision limiting federal regulation of liquor under the same reasoning seven years before that. Other doctrines that were used to strike down federal legislation, such as limitations on Congressional power to delegate authority to agencies, enjoyed more widespread support -- such as the 8-1 decision in Panama Refining and the unanimous decision in Schechter.

Legal and constitutional history writing about the rise of progressive legal thought has tended to focus on the changing political environment, rather than nonlegal causes whose influence was much broader. For those historians that have looked at nonlegal sources, the most important is Darwinian evolutionary theory and the social science ideas that grew out of

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15E.g., Lochner (1905) (5-4); Adkins v. Children's Hospital, 261 U.S. 525 (1923) (5-3, Justice Brandeis not participating, striking down minimum wage statute for women); Morehead v. People of State of New York ex rel. Tipaldo, 298 U.S. 587 (1936) (5-4) (striking down minimum wage provision)
19United States v. E.C. Knight Co., 156 U.S. 1 (1895)
20Kidd v. Pearson, 128 U.S. 1 (1888) (manufacturing of liquor for shipment across state lines is not interstate commerce).
it -- particularly reform Darwinist sociology, instrumentalism, Freudianism, and genetic determinism. For example, beginning with Edward S. Corwin and Richard Hofstadter, historians from the mid-twentieth century tended to see economic Substantive Due Process doctrine and the progressive reaction as a debate about Darwinism.

But Darwinian ideas hardly serve to divide progressive from classical legal thought. Indeed, the conservatives who reacted against progressive economic legislation in the early twentieth century were often characterized as Social Darwinists -- even by Justice Holmes. He quipped in his *Lochner* dissent that the Fourteenth Amendment did not enact Mr. Herbert Spencer's *Social Statics*. Writing a half century latter, Henry Steele Commager concluded that Holmes was "obviously wrong," and that the majority really did believe the Fourteenth Amendment enacted a form of Social Darwinism. Other contemporary Constitutional and intellectual historians agreed. While I believe this characterization of substantive due process is incorrect, the fact remains that it represents an important rejection of the idea that the resistance to the progressive revolution came mainly from "classical" legal thought. Darwin and its social science implications were just as inconsistent with classical legal doctrine as progressive legal thought was.

Further, Darwin was hardly the only or even the dominant source of the revolution. Economic thought also went through a profound revolution in the late nineteenth and early twentieth century, and in ways that were to have a broad and lasting impact on legal policy. While the "progressive" direction of legal thought has produced plenty of critics, almost no one wants to roll the clock back on the marginalist revolution in economics. Further, the impact of marginalism reached much more broadly than to self-

23. Hovenkamp, Opening, *supra* note 5, Ch. 3.
27. See citations, note 24, *supra*.
styled progressives. As a result the "classical-progressives" dichotomy gets the distribution of legal views very wrong. Most legal conservatives or libertarians who were literate in economics also embraced the marginalist revolution.

Today the term "neoclassical" refers to economics since the rise of marginalism. The term is helpful because it realistically suggests a blending of old and new ideas rather than a complete rejection of everything that had gone before. For the most part neoclassical economics preserved classicism's preference for market exchange and private ownership. At the same time, however, neoclassical markets were far more complex than classical markets had been, and the tools for assessing them became more technical. In the process many of the classical conclusions about the value of competition and the harm caused by monopoly were preserved, but qualified.

The same thing is true of the largely simultaneous revolution in legal thought. For that reason the term "neoclassical" seems preferable to the term "progressive" here as well. Neoclassical legal thought included a larger mix of legislation to common law rules, as well as more regulation. But legislation hardly eliminated either markets or the common law. The common law became less concerned with compensation for past harm done and more focused on risk management for the future, but most of it retained its character as judge made law. While Grant Gilmore proclaimed the "death of contract" in 1974, contract law hardly died. Rather, it evolved into the great institutions of the First and Second Restatements and the Uniform Commercial Code. Neoclassical criminal law incorporated both theories of genetic inheritance and of marginal deterrence, but it never abandoned its concerns with morality or even retribution. Corporate law largely remained intact, even as it abandoned backward looking theories of corporate finance expressed in the concept of par value shares and moved toward rational expectations models. These views were clearly revisionist, but they were just as clearly not "progressive." Rather, they

29 See HOVENKAMP, OPENING, supra note 5 at 32-33, 96-97.
30 Id. at 123-158.
32 HOVENKAMP, OPENING, supra note 5 at 36-52.
33 Id. at 159-183.
embraced changes in legal theory and doctrine that claimed much broader support than "progressive" legal thought ever did.

**Neoclassical Economic Thought**

"Marginalism" equates value with reasonable expectations about the next choice.\(^{34}\) This was in sharp contrast to the classical political economists, who tended to see value as a consequence of previous decisions.\(^{35}\) Marginalism completely upended classical political economy's theory of value by changing the perspective from backward to forward looking. For example, while classicalists shared a strong belief that competition drives prices toward cost, the term "cost" usually meant an average of past expenses. By contrast, marginalists were able to articulate a much more precise relationship between prices and cost, first by the concept of "marginal" cost, or the anticipated cost of making one further unit in the future, and somewhat later, marginal revenue. This enabled marginalists to relate cost, value and decision-making with much greater clarity than the classicalists had achieved.

Prior to the 1870s Anglo-American political economy largely developed its theory of value from the amount of labor that went into something.\(^{36}\) In Adam Smith's words, "The real price of everything ... is the toil and trouble of acquiring it."\(^{37}\) The relevant queries were backward looking, and typically located "value" by dividing total past investment by the number of units produced. In sharp contrast, contemporary English political philosophy was increasingly utilitarian, particularly under the influence of Jeremy Bentham (1748-1832) and John Austin (1790-1859). Bentham in


\(^{37}\) ADAM SMITH INQUIRY INTO THE NATURE AND CAUSES OF THE WEALTH OF NATIONS, Bk. I, Ch. 5.2 (1776).
particular developed sophisticated, forward-looking concepts of marginal deterrence in criminal law,\textsuperscript{38} as well as the concept of declining marginal utility, or the idea that any good has less incremental value per unit as one acquires more of it.\textsuperscript{39} He also had a conception of "equilibrium," -- or the idea that things move from lower to high utility and come to rest when utilities are equalized.\textsuperscript{40}

One enigma in nineteenth century British thought is the extent to which classical political economy and utilitarianism in political philosophy existed side by side, all the while encompassing inconsistent theories about value. The mystery is all the more perplexing because the French economist Augustin Cournot (1801-1877) had embraced marginalism much earlier and was known in England.\textsuperscript{41} His work was more mathematical, however, than anything that the English political economists did prior to the late nineteenth century.

Before economics could become "marginalist" Bentham's ideas about expected utility had to migrate from criminal law and politics into a theory of market exchange. Late in his life John Stuart Mill began toying with marginalist ideas, although even today the extent of Mill's marginalism is disputed.\textsuperscript{42} The real task of rewriting British political economy along

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\textsuperscript{38}HOVENKAMP, OPENING, supra note 5 at 28-29.

\textsuperscript{39}JEREMY BENTHAM, THE PHILOSOPHY OF ECONOMIC SCIENCE (c. 1793), reprinted in 1 WERNER STARK, JEREMY BENTHAM’S ECONOMIC WRITINGS: CRITICAL EDITION BASED ON HIS PRINTED WORKS AND UNPRINTED MANUSCRIPTS 113 (1952) (“[T] he quantity of happiness produced by a particle of wealth (each particle being of the same magnitude) will be less at every particle; the second will produce less than the first, the third than the second, and so on.”). See also JEREMY BENTHAM, PRINCIPLES OF THE CIVIL CODE, Part 1, Ch. 6 (first published 1802), 1 THE WORKS OF JEREMY BENTHAM (John Bowring, ed., 1838). On the influence of Bentham on thinking about marginal deterrence, see BERNARD E. HARCOURT, THE ILLUSION OF FREE MARKETS: PUNISHMENT AND THE MYTH OF NATURAL ORDER (2011).

\textsuperscript{40} On this point see Werner Stark, Jeremy Bentham as an Economist, 56 ECON. J. 583 (1946).

\textsuperscript{41}See MARK BLAUG, ECONOMIC THEORY IN RETROSPECT chs. 8–11, 15 (4th ed. 1985).

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marginalist lines fell to William Stanley Jevons (1835-1882), F.Y. Edgeworth (1845-1926), and Alfred Marshall (1842-1924). By common belief, John Bates Clark in the United States (1847-1938) arrived at marginalism simultaneously, independently, and radically. 43

For the marginalists, all value lay in anticipations about the future. "Value depends entirely on utility," Jevons wrote in the early 1870s, not on previous investment. 44 Jevons then developed simple models of exchange, in which people traded in order to increase their personal utility. He showed that any individual would maximize value by trading up to the point that he had exactly the same marginal utility for everything. If there was an imbalance he would make further trades until utilities were equalized. 45 From these principles marginalists developed what eventually became a powerful set of mathematical tools to describe how the economy moves toward an equilibrium. Alfred Marshall, who was obsessed with fluid mechanics, developed this idea much further. 46 Holmes, who was not an economist, later recognized its importance. 47

While the classical theory of value depended on purely material components relating to costs, marginalist value theory was behavioral, based on assumptions about how human beings make choices. The importance of this difference between classical and neoclassical value theory is difficult to exaggerate. While classicists tended to see political economy as part of the law of nature, neoclassicists increasingly saw economics as part of social science. The same thing occurred in elite legal theory, which moved from natural science to social science models as well.

Marginalism spread very quickly and by the turn of the century claimed many of America's most prominent economists. These included

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45 Id., When someone is satisfied with exactly what he has, “it follows that . . . an increment of commodity would yield exactly as much utility in one use as in another.”

46 Hovenkamp, Opening, supra note 5 at 30-32.

John Bates Clark (Columbia), Irving Fisher (Yale), Francis Amasa Walker (Yale), Arthur Twining Hadley (Yale), Simon Newcomb (Johns Hopkins) and Charles Sanders Peirce (mainly, U.S. Government, philosophy of science). It quickly became a staple in American economic treatises and texts. At the same time there were notable outliers on both the left and the right. Thorstein Veblen, the grandparent of left-leaning American institutionalism, opposed marginalism because in his mind its stripped down theory of rational decision making was not sufficiently evolutionary and did not give an adequate account of human behavior. On the far right was Yale's William Graham Sumner, a Social Darwinist and defender of classicism who wrote more as a public intellectual than an

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50 ARTHUR TWINING HADLEY, *ECONOMICS* (1898)


52 See HOVENKAMP, OPENING, supra note 5 at 138-139.

53 E.g., HADLEY, supra note 50; RICHARD T. ELY OUTLINES OF ECONOMICS (1893); ARTHUR TWINING HADLEY'S ECONOMICS: AN ACCOUNT OF THE RELATIONS BETWEEN PRIVATE PROPERTY AND PUBLIC WELFARE (1896); CHARLES J BULLOCK, INTRODUCTION TO THE STUDY OF ECONOMICS (1897); HERBERT J. DAVENPORT, OUTLINES OF ELEMENTARY ECONOMICS (1897); EDWARD T. DEVINE, ECONOMICS (1898); FRANK A. FETTER, PRINCIPLES OF ECONOMICS WITH APPLICATIONS TO PRACTICAL PROBLEMS (1904); HENRY R. SEAGER, INTRODUCTION TO ECONOMICS (1904); EDWIN R.A. SELIGMAN, PRINCIPLES OF ECONOMICS, WITH SPECIAL REFERENCE TO AMERICAN CONDITIONS (1905); FRANK W. TAUSIG, PRINCIPLES OF ECONOMICS (1911); IRVING FISHER, ELEMENTARY PRINCIPLES OF ECONOMICS (1911).

By the turn of the century marginalist ideas were attaining widespread acceptance in American universities, both inside and outside of formal economics. Marginalism was also ideologically diverse, capturing both left leaning as well as more conservative economists. On the left were institutionalist labor economist John R. Commons, who was an important American developer of marginalist theory before he began to identify himself with institutionalism and labor economics. The same thing was true of tax economist Edwin R.A. Seligman, who incorporated marginalist economics into his studies about the shifting and incidence of taxation as well as his advocacy of a graduated income tax.

More conservative and laissez faire economists who adopted marginalist analysis included John Bates Clark (Columbia), J. Laurence Laughlin (Univ. of Chicago), Arthur Twining Hadley, who became a long serving president of Yale University, and later Harvard's Frank Taussig, who was more moderate. Indeed, early criticism of American antitrust policy, a progressive innovation, came from marginalist economists such as Hadley, who believed that antitrust would interfere with firms' ability to reach efficient size through merger or collaboration. The prominent Johns

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55 See William Graham Sumner, Collected Essays in Political and Social Science (1885); see Hovenkamp, Opening, supra note 5 at 25-27.


57 E.g., John R. Commons, The Distribution of Wealth (New York: Macmillan, 1893).


60 Frank Taussig, Principles of Economics (1913).

Hopkins public intellectual Simon Newcomb, who wrote in many areas of science and mathematics as well as economics, was both a marginalist and a staunch defenders of laissez faire. Newcomb's fierce debates in the 1880s with progressive economist Richard T. Ely drew the battle lines over the future of the discipline. One focus of the debate was whether marginalism and laissez faire political theory were consistent.62

During the decades following Reconstruction both Darwinian and marginalist ideas went from controversial to mainstream, with dissenters increasingly shunted to the sidelines. These ideas eventually captured virtually all of the American academy in their respective fields. By the 1920s pretty much everyone with a thoughtful opinion had embraced both biological evolution and marginalist economics.

In that case, just how much of the contemporaneous revolution in legal thought was really "progressive," and how much reflected a much broader revolution that accommodated these disruptive ideas in different ways? By and large those who lament the progressive revolution in legal thought today would not turn the clock back on marginalist economics and, for the most part, not on Darwinian evolution either. But accommodating the theory of evolution and marginalist analysis required so much revision of classical legal thought that it really can no longer be called "classical." Further, legal progressivism by and large did not carry these ideas any further, although they did spin them in different directions.

Darwinism and marginalism both had profound and simultaneous influences on American legal thought. Ironically, however, they were built on inconsistent assumptions about human nature. Their preferred methodologies of social control were very different as well.

Darwinians believed that human beings, like all organisms including plants, had an instinct for survival that dominated everything else, even conscious choice. Further this instinct was forever and relentlessly reactionary against the environment, making the concept of free choice almost meaningless. For the Darwinian social scientist the human being was a body, and the mind merely one of its many organs seeking survival. Speaking of Darwinian instrumentalist John B. Watson, Justice Holmes

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wrote Harold Laski in 1928, that Watson was “so preoccupied with resolving all our conduct into reflex reactions to stimuli, that he almost denies that consciousness means anything and that memory is more than a useless and misleading word.”

In sharp contrast, marginalism was built on a rational expectations model that saw the human being entirely as a mind, whose choices might or might not benefit the body. The marginalist mind, in sharp distinction from that of the Darwinian, was rational and autonomous, developing and asserting preferences and making maximizing responses to its environment. Further, as marginalist economics became more rigorous in the 1930s it virtually ruled out all inquiry into the biological or other external sources of preference. Such investigations were not within the boundaries of economic science.

Followed to their logical conclusions, these inconsistent views about human nature led to completely incompatible philosophies of social control. For the Darwinian, any particular individual’s deviant harmful conduct could not be controlled except by incarceration. The only way to address the problem over the longer run was through sterilization or sexual isolation -- a proposition that many American progressives heartily embraced. By contrast, the marginalist believed that persons would respond rationally to rewards and penalties. As a result, punishment could be metered to the offense. In The Path of the Law, as observed below, Holmes categorically aligned himself with the marginalists.

**Neoclassical Legal Policy**

Marginalism's forward looking theory of value was a revolution in human perspective about choice and decision making. It also posed important administrative difficulties. Either Yogi Berra or physics Nobel laureate Nils Bohr once observed that "prediction is very difficult, especially if it's about the future." No matter the author, the point is an

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64HOVENKAMP, OPENING, supra note 5 at 42-47.

65Oliver Wendell Holmes, Jr., The Path of the Law, 10 Harv. L. Rev. 457, 458, 461, 471, 473-474 (1897). See discussion infra, text at notes 114-122.

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important one. The world opened up by marginalist thought involved much more uncertainty than anything that economic classicists had considered. In order to be useful for policy and prediction, both economics and legal theory developed an idea of rational expectations, or the reasonable foresight of an average person, in order to manage decision making about value. His ability to capture this insight made Holmes America's greatest marginalist in turn of the century legal policy.67

One important result, strongly influenced by Holmes, was a revolution in the common law of contracts, property, and tort, changing their focus from compensation for past harm done toward management of risks and ongoing relationships. Contract law in particular abandoned its strict requirements of previously agreed upon price, quantity, and product and terms of delivery. Instead, neoclassical contract law evolved toward increasing acceptance of more open ended arrangements that looked to the future, requiring business firms to behave within rationally expected parameters but not necessarily specifying price, quantity, or other specific terms. Aided by the rise of actuarial science, tort law adopted probabilistic theories of causation, shared liability, and risk management.68

Marginalism's reorientation of decision theory toward future expectations was much more realistic about the way people behave. At the same time, however, incorporating these forward looking conceptions of human behavior destabilized legal policy. The range of predicted values is larger than the range of averaged values taken from the past. Marx aside, classical political economy never developed pronounced interventionist views in distinction from accepted laissez faire alternatives. Marginalism, by contrast, broke down quickly into left and right leaning views, both of which were generally consistent with the marginalist assumptions of the day.

Market Diversity and Failure: Antitrust and Regulatory Alternatives

As marginalist economics became formalized, particularly in the writings of F.Y. Edgeworth and Alfred Marshall, economists and later lawyers increasingly believed two things. First, markets differ from one another. Second, the conditions for robust competition are met less often than the classical political economists had assumed, making markets more prone to failure.69 Marginalist economists of every political stripe accepted


67 See discussion infra, text at notes 114-122.

68 See HOVENKAMP, OPENING, supra note 5 at 123-158.

69 Traced out in George J. Stigler, Perfect Competition, Historically
these propositions, although they differed as to the amount as well as about policy implications. Further, their views changed over time.

Notwithstanding his near socialism on questions of wealth redistribution, the great Cambridge University economist Alfred Marshall managed to produce the most important industrial economics book of his era, and it was largely committed to determining the conditions of competition, with monopoly as an occasional exception. However, certain problems emerged in Marshall's formulation of competition theory. Under his marginal cost pricing model, competitive firms with fixed costs would end up cutting prices to the point that they could not recover their capital investment. The result was "ruinous competition" that would work itself out until only one firm would be left in the market.

Marshall himself was never able to solve the problem of fixed costs satisfactorily, and by early in the twentieth century a significant consensus emerged among mainstream economists that competition would be "ruinous" in industries with high fixed costs. The solutions were monopoly or collusion. Many believed that by prohibiting cartels and condemning at least some monopoly antitrust policy would only make things worse. It would effectively punish them for doing only what was inevitable.

For this reason a significant group of economists opposed the newly enacted Sherman Act, while Progressives tended to favor it. The mainstream marginalist view was based mainly on the premise that fixed costs and economics of scale dictated large firm size and that any attempt to intervene would be counterproductive. For example, the "ruinous competition" antitrust defense was presented to the courts as a justification for price fixing. In the early nineteenth century a significant literature


ALFRED MARSHALL, PRINCIPLES OF ECONOMICS (1890).


See HOVENKAMP, ENTERPRISE, supra note 17 at 308-322.

Henry Rand Hatfield, The Chicago Trust Conference, 8 J. Pol. Econ. 1, 6 (1899). The proceedings of this meeting were published as CHICAGO CONFERENCE ON TRUSTS: SPEECHES, DEBATES, RESOLUTIONS (1900).

E.g., RICHARD T. ELY, MONOPOLIES AND TRUSTS (1912); CHARLES R. VAN HISE, CONCENTRATION AND CONTROL (1912); TRUSTS, POOLS, AND CORPORATIONS (William Z. Ripley, ed. rev. ed. 1916).

United States v. Joint Traffic Assn., 171 U.S. 505, 576 (1898); United
developed on the relationship between fixed costs and competition. Eventually economists began to develop more complex models of competitive behavior taking price discrimination and product differentiation into account.77

The history of regulation tells a somewhat similar story. Historically, much of regulatory history was written by historians with a progressive bias. They tended to see regulation as the outcome of a war between capitalist defenders of laissez faire and new progressive ideas.78 Later the dominant view came to be that most regulation was actually passed at the behest of regulated firms who wanted to relieve themselves from some of the rigors of competition.79

Both sides of this story give short shrift to the significant amount of technical economic work that sought to define the appropriate boundaries of regulatory intervention.80 That debate was heavily driven by differing conceptions about the nature and ubiquity of market failure. Very little of it reflected a classical-progress case divide. Even today, to the extent that the case against regulation is libertarian rather than economic,81 the views are clearly not "classical." The classical theory of regulation in the United States included a strongly moral and thus anti-libertarian set of exceptions - even permitting such things as the uncompensated shutdown of distilleries that had been legal when they were built,82 or Sunday work or commercial

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76 J. MAURICE CLARK, STUDIES IN THE ECONOMICS OF OVERHEAD COSTS (1923).
77 JOAN ROBINSON, THE ECONOMICS OF IMPERFECT COMPETITION (1933); EDWARD CHAMBERLIN, THE THEORY OF MONOPOLISTIC COMPETITION (1933).
80 See Hovenkamp, Regulatory Conflict, supra note 16.
82 HOVENKAMP, OPENING, supra note 5 at 255-262
transactions. \footnote{Ibid.}

Nineteenth century American governments at all levels were regulators. Writing in the first half of the twentieth century, progressive historians painted a picture of the nineteenth century as a laissez faire state until progressive government regulation developed as a response to late nineteenth century abuses as well as the labor movement.

The facts are more complex. First, the progressive critique of nineteenth century regulation seriously overstated the case, creating an image of laissez faire that never really existed. \footnote{See \textsc{William J. Novak}, \textsc{The People's Welfare: Law & Regulation in Nineteenth Century America} (1996); \textsc{Hovenkamp, Opening, supra} note 5, Chs. 11-13, 15.} Second, however, the bulk of nineteenth century regulation fell into a triumvirate of "health, safety, or morals" that was clearly recognized in Gilded Age case law as well as the contemporary constitutional treatise writers. \footnote{Id., Ch. 13.} Under this view, which came to define the boundaries of Substantive Due Process constitutional analysis, the State had authority to intervene to protect the morals of everyone concerned from their own degenerate inclinations. By contrast, health or safety concerns justified regulation when the feared injury was on third parties who were not in a position to bargain over an issue. For example, in \textsc{Lochner}, Justice Peckham condemned the bakers' ten hour provision because he could not find a relationship between that rule and the "healthful quality of the bread" that the bakers produced. As adult individuals with contractual capacity the bakers themselves could bargain about their own personal health and well-being, but bread consumers were not participants in that bargain. \footnote{Ibid.; and see \textsc{Lochner v. New York}, 198 U.S. 45 (1905) ("In our judgment it is not possible in fact to discover the connection between the number of hours a baker may work in the bakery and the healthful quality of the bread made by the workman.")}. Three years later Louis Dembitz Brandeis was able to turn the Court on this issue by writing a "social science" brief whose argument was divided into three parts, dealing with the effect of long working hours on womens' "health," "safety," and "morals." \footnote{Louis D. Brandeis and Josephine Goldmark, \textsc{Brief for Defendant in Error, Muller v. Oregon}, 208 U.S. 412 (1908). See \textsc{Hovenkamp, Opening, supra} note 5 at 249-252.}

The "health, safety, and morals" issue dominated constitutional discussion about the limits of regulation during the Gilded Age. The phrase was used in 44 published judicial opinions prior to 1890, an additional 100
cases between 1890 and 1900, and in another 1100 cases between 1900 and 1930. After *Carolene Products* this limitation was no longer needed as a justification for purely economic regulation. Under marginalist analysis the "health, safety, and morals" rationales for regulation gave way to a more secular theory of market failure that justified regulation on economic grounds. The Supreme Court largely left the issue to Congress and state legislatures.

While the economic theory of regulation since that time has divided into differing theories about its social value and harm, the dominant ones are all marginalist and all center on two questions. The first one concerns the pervasiveness of market failure. The second one concerns the ability of the political system to recognize market failure and do something constructive about it.

The progressive public interest theory of regulation became increasingly subject to criticism in the 1960s, and from both the political left and the right. First, the anecdotal case against regulation was often easily made, as *Carolene Products* itself illustrates. The federal regulation at issue prohibited "filled milk," which consisted of milk to which a small amount of oil had been added that enabled it to whip. It was cheaper than dairy cream, healthier by today's standards, and performed better. *Carolene* produced it under the name "Milnut." It is produced to this day by Smucker's, Inc., but renamed "Milnot" a year after the decision. Far from being progressive regulation in the public interest, *Carolene Products* actually represented an instance of special interest capture by the dairy industry, attempting to protect itself from an inexpensive alternative. Just prior to the Supreme Court decision several state courts had struck down similar state law provisions because they had not been shown to relate reasonably to health, safety, or morals.

The progressive critique of railroad regulation argued that regulation was in the public interest, intended to bring railroad monopoly under control. The critique of that position came from both political sides. New

91 Prominent examples include 2 CHARLES BEARD & MARY BEARD, THE RISE OF AMERICAN CIVILIZATION (1928); EMORY RICHARD JOHNSON & THURMAN WILLIAM VAN METRE, PRINCIPLES OF RAILROAD TRANSPORTATION 499-508 (1926); WILLIAM F. RIPLEY, RAILROADS, RATES,
Left historian Gabriel Kolko argued that, far from reflecting progressive concerns to control monopoly, railroad regulation was actually instigated by the railroads themselves as protection from excessive competition and bankruptcy.\footnote{92}{Gabriel Kolko, Railroads and Regulation: 1877-1916 (1965).}

This regulatory capture thesis also became a staple of more right-leaning libertarians and the Chicago School, all driven by marginalist analysis.\footnote{93}{E.g., George J. Stigler, The Theory of Regulation, 2 Bell J. Econ. 3 (1971); Richard A. Posner, Theories of Economic Regulation, 5 Bell J. Econ. Mgmt Sci. 335 (1974).}

For example, Buchanan and Tullock's *Calculus of Consent* conducted an extensive marginalist analysis of individual rational decision making and its relationship to social choice.\footnote{94}{Buchanan and Tullock, supra note 81.}

Mancur Olson, whose influential book *The Logic of Collective Action* became among the most popular defenses of the regulatory capture theory,\footnote{95}{Mancur Olson, Jr., The Logic of Collective Action: Public Goods and the Theory of Groups (1965).}
developed it entirely out of the neoclassical theory of how cartels discipline themselves. He borrowed heavily from his thesis advisor Edwin Chamberlin, whose *Theory of Monopolistic Competition* had been published thirty years earlier.\footnote{96}{Olson, id 9–24, relying on Edward Chamberlin, Theory of Monopolistic Competition (1933). See Richard Tuck, Free Riding (2008). Chamberlin had been Olson's thesis advisor but died before it was finished. See J Barkle Rosser, Jr., The Rise and Decline of Mancur Olson's View of the Rise and Decline of Nations, 74 S.Econ. J. 4 (2007).}

The regulatory capture argument does pick up one theme from substantive due process analysis. In *Lochner* Justice Peckham professed his suspicion that legislation such as the 10-hour law was in fact passed for "other motives" than the justifications offered for it.\footnote{97}{Lochner v. New York, 198 U.S. 45, 64 (1905) ("It is impossible for us to shut our eyes to the fact that many of the laws of this character, while...".)}
the interest groups behind the law, however, although they are well known.\footnote{98} Peckham suggested that a proffered motive was to assure the "healthful quality of the bread," but then added that in the Court's judgment it was "not possible in fact" to discover that connection.\footnote{99}

That conclusion is odd. Peckham believed not only that no one had shown a relationship between workers' hours and the quality of the product, but that it was impossible to do so empirically. Whether or not that was true in 1905, the fact is that Substantive Due Process analysis was never good at identifying special interest capture because it never developed any empirical tools for doing so. The case law either assumed capture or else was indifferent to the question, concluding that liberty of contract outweighed any market failure effects, whether present or not. One defeated this premise not by showing an absence of capture, but rather by showing that the regulation in question pertained to health, safety, or morals.

But of course Carolene Products did not do any better. Its highly deferential standard toward economic regulation makes legislative capture irrelevant unless the regulation in question invades some explicit constitutional right or is so biased in its preference for a particular interest group that it violates Equal Protection even under a rational basis test.

\begin{quote}
\textit{The Neoclassical Market: Intervention and the Commerce Clause}
\end{quote}

Gilded Age and early twentieth markets were larger than they had been previously, and in two different senses. The first sense was technological and consisted in the revolution in transportation and manufacturing. The railroad greatly decreased the cost and increased the speed of interstate shipments, and mass production entailed that firms had to seek out wider markets for their goods.\footnote{100}

Second was the changing economic conception of the market. Historically the "market" had been viewed as a setting where buyers and sellers make exchanges -- a metaphor that was both personal and local. For

\footnote{100}HOVENKAMP, OPENING, supra note 5 at 295-296.
neoclassical economists such as Marshall, however, the market was an area over which prices tended to move toward an equilibrium. This meant that the "market" could be depicted by demand and supply curves that did not distinguish individual function.\textsuperscript{101} Acquisition of raw materials, processing, distribution and delivery all became part of a highly abstract, undifferentiated production function.

Increasingly after the Civil War, important production decisions were made in contemplation of interstate transactions. A New York producer of beet sugar might grow and pack it for shipment to Boston or New York. A farmer's decision about what to plant and how much to grow depended critically on his anticipation about the size of the market. These queries collapsed decisions about production and shipment into one. They largely superseded any usefulness that the distinction between "manufacturing" and commerce" under dual federalism might ever have had.

In 1895 the Supreme Court ruled 8-1 that manufacturing is not commerce, and as a result the Sherman Act could not reach a trust of sugar manufacturers even if the shipments were designated at production for interstate shipment. The acknowledged object of the trust, as Justice Harlan observed in his dissent, was "to obtain a great influence or more perfect control over the business of refining and selling sugar in this country."\textsuperscript{102} To the extent that the trust exported its product, the state where the production plants were located was the beneficiary rather than the victims of its monopoly. As a result, Chief Justice Fuller and the majority seemed naive to opine that the "relief of the citizens of each state from the burden of monopoly and the evils resulting from the restraint of trade among such citizens was left with the states to deal with."\textsuperscript{103} Insofar as this was an interstate issue, the state's interest was aligned with the monopoly sellers rather than the buyers.

The Supreme Court adhered to that view in 1918 in the first child labor case, although now the margin was 5-4. \textit{Hammer} struck down a federal statute prohibiting the use of child labor to produce goods that were shipped


\textsuperscript{103}E.C. Knight, 156 U.S. at 11.
interstate within 30 days of their manufacture.\textsuperscript{104} The thirty day limitation is telling, because it indicates that interstate shipment for the goods in question was planned. They were being manufactured in fulfillment of orders from out of state.

Justice Holmes's dissent made two eminently sensible points. The first was that Congress was in fact regulating what could be transported across a state line. It was not regulating child labor for purely intrastate production and sale.\textsuperscript{105} His other point was this:

The Act does not meddle with anything belonging to the States. They may regulate their internal affairs and their domestic commerce as they like. But when they seek to send their products across the State line they are no longer within their rights. If there were no Constitution and no Congress their power to cross the line would depend upon their neighbors. Under the Constitution such commerce belongs not to the States but to Congress to regulate. It may carry out its views of public policy whatever indirect effect they may have upon the activities of the States. Instead of being encountered by a prohibitive tariff at her boundaries the State encounters the public policy of the United States which it is for Congress to express.\textsuperscript{106}

The \textit{E.C. Knight} and \textit{Hammer} decisions raised important issues about market size and regulatory sovereigns. By the time \textit{Hammer} was decided many states had enacted child labor laws, and the Supreme Court had already held that a state child labor provision did not violate the Equal Protection clause.\textsuperscript{107} But while states limited the use of child labor within their own borders they did not limit the importation of goods from other states that employed child labor. Both Thomas Reed Powell and Edward Corwin complained that in a market dominated by interstate shipment and individual state child labor laws there would be a race to the bottom to the extent that manufacturers could employ child labor freely for interstate shipments.\textsuperscript{108}

\begin{footnotesize}
\begin{enumerate}
\item 104 Hammer v. Dagenhart, 247 U.S. 251, 276 (1918).
\item 105 \textit{Id.} at 277-278 (Holmes, j., dissenting, jointed by jj. McKenna, Brandeis, Clarke).
\item 106 \textit{Id.} at 281
\end{enumerate}
\end{footnotesize}
Both *E.C. Knight* and *Hammer* illustrated what came to be a central proposition of neoclassical markets and regulatory theory: regulators who are smaller than the markets that they are regulating produce self dealing. States would benefit by controlling monopolies for domestically consumed goods, but also by preserving or encouraging them for exported goods, which produced high domestic returns and visited their harm elsewhere. The much later decision in *Parker v. Brown* (1943) illustrated the problem. The Supreme Court upheld a state-administered raisin allocation program, a leftover of the first New Deal, which effectively cartelized raisin production in California. Ninety-five percent of the raisins grown under the arrangement were shipped outside of the state, making California an enormous beneficiary of the cartel and the other states its victims.

Neoclassical conceptions of market failure and market size necessitated the conclusion that efficient regulatory sovereigns must be large enough to encompass the markets that they are regulating -- a point that Holmes realized full well in his *Hammer* dissent.

The final Supreme Court decision relying on the manufacturing/commerce distinction was *Carter* (1936), which overturned a federal statute that regulated working conditions and production standards in the bituminous coal industry. A few years later the Supreme Court reversed course in *Darby* (1941), which overruled *Hammer* and upheld the Fair Labor Standard's Act that forbade the interstate shipment of goods in violation of its wage and hours provisions. Wickard v. Filburn a year later created modern "affecting commerce" jurisdiction.

In applying *Wickard* to the Sherman Act a few years later, the Supreme Court reflected a thoroughly neoclassical view of markets. The decision condemned collusion among stitching contractors for women's clothing who were located in Boston and New York but shipped more than 80% of their product into other states. The Court brushed aside the defense that the price fix was for stitching, all of which occurred within a state:

The trial court appears to have dismissed the case chiefly on the ground that the accused Association and its members were not themselves engaged in interstate commerce. This may or may not be the nature of their operation considered alone, but it does not matter.

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Restraints, to be effective, do not have to be applied all along the line of movement of interstate commerce. The source of the restraint may be intrastate, as the making of a contract or combination usually is; the application of the restraint may be intrastate, as it often is; but neither matters if the necessary effect is to stifle or restrain commerce among the states. If it is interstate commerce that feels the pinch, it does not matter how local the operation which applies the squeeze.113

Holmes' Marginalism: Deterrence and Risk Management

One noteworthy problem with the classical/progressive dichotomy theory is the omnipresence of Holmes, whose career stretched over a Harvard faculty post, twenty years as a state Justice on the Supreme Judicial Court of Massachusetts, and then thirty years on the United States Supreme Court. On both federal and state law issues, he often appeared to take the "progressive" side, leading some writers to misinterpret his personal views quite seriously.114 For example, he dissented from both the Lochner decision striking down a ten-hour law and the Hammer decision striking down a federal child labor statute.

Nonetheless, while Holmes was clearly not "classical," neither was he "progressive." He was conservative by nature and very suspicious of economic tinkering by legislation. At the same time, he shared many progressive views about race and genetics.115 Holmes may or may not have been sincere in Lochner, when he said he would need long study before determining his position on the economic theory underlying labor protection statutes.116 But just as certainly as Holmes was not a progressive, he was an economic marginalist, and this made all the difference.

Scholarship about Holmes has tended to emphasize the role of Darwinian evolution in his thought, particularly its evolutionary historicism.117 Holmes's interest in evolution is clear. For example, The

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115 HOVENKAMP, OPENING, supra note 5 at Chs. 2-3.
116 See discussion supra, text at note 14.
117 E.g., DAVID M. RABBAN, LAW’S HISTORY: AMERICAN LEGAL THOUGHT AND THE TRANSATLANTIC TURN TO HISTORY, 215-267 (2013); LOUIS MENAND, THE METAPHYSICAL CLUB 49-69 2001); G. EDWARD WHITE,
Common Law cites the British Darwinian anthropologist Edward Tylor several times for points about the cultural evolution of legal norms.\(^{118}\)

While these influences are undeniable, it is equally clear that Holmes's approach to legal policy was utilitarian and marginalist, driven by concerns about deterrence and risk management.\(^{119}\) A theme that dominates The Common Law's is the appropriate legal standards for managing risk and minimizing expected losses. "...[T]he safest way to secure care is to throw the risk upon the person who decides what precautions shall be taken," stated his chapter on trespass and negligence, giving several examples. The legal risk must be borne by the one with superior control of the circumstances, he wrote in his introductory chapter on torts, speaking of the person who rides an unbroken horse on a crowded way. He defended aggressive rules for highly dangerous conduct that "throw the risk upon the party pursuing it." He famously argued that contracts involved "the taking of a risk" and a set of bets about the future. Consequential damages were not appropriate "unless the assumption of that risk is to be taken as having fairly entered into the contract.\(^{120}\)

Holmes's belief that we can never examine the internal workings of the minds of others became a staple of legal thought in the early twentieth century. His external standard began with the hypothesis of the "average man," considering "what would be blameworthy in the ... man of ordinary intelligence and prudence." Whether or not Holmes appreciated it, the substitution of the hypothetical average person for inquiries about subjective state of mind turned the law into a social control device for managing risk. The average person did not really exist; he had to be reconstructed. Harvard Law Professor and Holmes follower Warren A. Seavey wrote later of Holmes's insights that "The standard man evaluates interests in accordance

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\(^{118}\)Oliver Wendell Holmes, Jr., The Common Law 11, 19, 34 (1881), citing Edward Tylor, Primitive Culture: Researches into the Development of Mythology, Philosophy, Religion, Art, and Custom (1871).

\(^{119}\)See Hovenkamp, Opening, supra note 5 at 38-42, which develops Holmes's marginalism in some detail.

\(^{120}\)The Common Law, 117, 149, 300-305.
with the valuation placed upon them by the community sentiment crystallized into law.”\textsuperscript{121}

Holmes’s famous, widely reprinted essay \textit{The Path of the Law} (1897) was even clearer that the whole point of law was marginal deterrence, and that economics was essential to its study. For example, the purpose of damages was to give people a motive for good behavior. Holmes made this powerful argument for marginal deterrence as the goal of criminal punishment, categorically rejecting more Darwinian approaches:

If the typical criminal is a degenerate, bound to swindle or to murder by as deep seated an organic necessity as that which makes the rattlesnake bite, it is idle to talk of deterring him by the classical method of imprisonment. He must be got rid of; he cannot be improved, or frightened out of his structural reaction. If, on the other hand, crime, like normal human conduct, is mainly a matter of imitation, punishment fairly may be expected to help to keep it out of fashion. The study of criminals has been thought by some well known men of science to sustain the former hypothesis. . . . But there is weighty authority for the belief that, however this may be, "not the nature of the crime, but the dangerousness of the criminal, constitutes the only reasonable legal criterion to guide the inevitable social reaction against the criminal."\textsuperscript{122}

No single individual did more than Holmes to reorient American legal thinking in the late nineteenth century, switching its emphasis from morality and redress for the past to a concern with appropriate incentives and management of risk. But these were hardly exclusively "progressive" concerns. To the contrary, they cut across all of elite legal thought, from commercial law and contracts to corporate law and tort theory.

\textit{Corporate Finance, Structure and Governance}

Another area that was powerfully affected by the marginalist revolution was the legal theory of the corporation, particularly corporate finance. Ideology is powerful, however, and what makes corporate law so interesting is the way that the doctrine "flipped." In this case it was the progressives


\textsuperscript{122}Oliver Wendell Holmes, Jr., \textit{The Path of the Law}, 10 \textit{Harv. L. Rev.} 457, 458, 461, 471, 473-474 (1897).
who clung to traditional, classical theories of value, while more conservative corporate scholars turned to forward looking reasonable expectations theories.

Classical corporate finance theory believed that the legal "value" of a firm was a function of its paid in capital, which was the amount of cash or other property that had been placed into the corporation at the time of its formation, plus subsequent contributions.\textsuperscript{123} Corporate shares were issued at "par," which was predicated on this stated value. For example, if a firm had $1000 of paid in capital it could issue 100 shares of stock with a stated "par" value of $10 per share. As the Pennsylvania Supreme Court stated this classical view in 1889, the stock certificate “stands in the hands of the subscriber for so much as, and no more than, the amount actually paid upon it.”\textsuperscript{124} Stock was said to be "watered" when the stated par value, or par multiplied by the number of shares, was greater than the actual paid in capital. This could occur because stated capital had simply not been paid in or -- more commonly -- because noncash assets had been contributed at evaluations that greatly exceeded their true market value.\textsuperscript{125} A great deal of Gilded Age and Progressive Era literature as well as many court decisions were concerned with claims of stock "watering."\textsuperscript{126} The watering metaphor was a reference to ranchers who sometimes forced cattle to drink large amounts of water in order to inflate their weight before auction.\textsuperscript{127} Beginning during Reconstruction and stretching through the Gilded Age, liberal writers such as Charles Francis Adams, persistently identified and attacked corporate abuses that took the form of stock watering.\textsuperscript{128}

\textsuperscript{123}Ho\textsuperscript{v}enkamp, Opening, supra note 5 at 159-172.


\textsuperscript{125}E.g., Gillett v Chicago Title & Trust Co., 230 Ill 373, 82 N.E. 891, 904-05 (1907) (penniless promoter's unwritten play and unpatented inventions were not worth the $2,000,000 that the promoter declared but were "wholly unpaid").

\textsuperscript{126}See, e.g., William W. Cook, A Treatise on Stock and Stockholders and General Corporation Law, §§21, 22, 28, 29 (2d ed. 1889); 4 Seymour D. Thompson, Commentaries on the Law of Corporations §3903 (2d ed. 1910).


\textsuperscript{128}E.g., Charles Francis Adams, Railroad Inflation, 108 N. Am. Rev. 130, 130-131 (1869); Charles Francis Adams, The Railroad System, 104 N. Am. Rev. 476 (1867); Adams, Legislative Control over Railway Charters, 1 Am. L. Rev. 451 (1867); Adams, The Erie Railroad Row, 3 Am. L. Rev. 41
To marginalist eyes the classical theory of corporate finance made little sense and certainly did not reflect how investors assessed value. A corporation's value might be close to its paid in capital on the day it commenced business, but soon after it could be worth either much more or much less, depending on how it fared in business. In sharp contrast to the classical theory, marginalists argued that the value of a corporation is a set of judgments about its reasonable prospects in the market. As a result the concept of "par" as historical paid in capital became meaningless. Around 1910 states began to approve the issuance of "no par" shares. 129

One interesting thing about the marginalist thinking that swept classical finance theory under the rug is that it came from the political right -- not from progressives, but largely from financial interests generally aligned with business conservatives. The principal instigator of the new valuation methodologies was the New York Bar, which by the Gilded Age was becoming the hub of United States corporate finance. 130 By contrast, the marginal contribution theory of wages, discussed below, that undermined the wage-fund doctrine came mainly from progressive or more left leaning economists or lawyers who saw in it a rationale for either unionization or minimum wage laws. By contrast, these same progressives resisted marginal value theories of corporate finance. Rather, they clung to classical value theories, which enabled them to develop their arguments against "watered" stock.


Although the new theory of corporate finance was far more realistic about the determinants of corporate value, it was also more difficult for legal policy to control. Under the classical theory corporate finance could be managed by any commercially literate judge. Whether capital had been paid in was largely a matter of accounting. The most difficult questions concerned valuation of paid in noncash assets, but most judges had experience doing this as well. By contrast, the rational expectations theory required predictions about future performance. As a result, along with the change from backward- to forward-looking theories of corporate finance came increased calls for regulatory control, first in the form of state "Blue Sky" laws and later through federal securities regulation.

These same forward looking rational expectations models also led to changing ideas about the relationship between corporate management and shareholders. Once again, the idea came from two different ideological directions. On the left, progressives Adolf A. Berle, Jr. and Gardiner C. Means wrote *The Modern Corporation and Private Property* (1932), a book that today is closely identified with the theory that the modern large corporation is characterized by separation of stock ownership and managerial control. Berle and Means saw this separation as the source of improper corporate power and waste.

But economists who stood much more centrally in the neoclassical tradition or even further right also embraced separation of ownership and control. The neoclassical theory of corporate finance and management predicated the firm as a single, rational economic actor intent on maximizing its value. Neoclassical economic scholarship treated the corporation as a unitary maximizing entity. The possibly separate wishes of shareholders were either disparaged or ignored. The line of thought began with Yale economist Irving Fisher's "separation theorem," first articulated early in the twentieth century, that the profit function of a corporation could not be derived from the individual utility functions of its shareholders. In

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132 See Hovenkamp, OPENING, supra note 5 at 168-172.


134 Irving Fisher, The Nature of Capital and Income (1906); Irving Fisher, The Rate of Interest: Its Nature, Determination and
the late 1930s the idea of shareholder insignificance appeared as a complete theory of firm structure and vertical integration in Ronald Coase's "Nature of the Firm," written before Coase moved to the United States. Coase argued that a firm's managers decide whether to make something internally or procure it from inside by comparing the costs of internal production against the costs of using the market. The aggregate of these decisions determines the firm's boundaries. Coase's article never mentioned shareholders, who were irrelevant to the maximizing, explicitly marginalist decisions that Coase contemplated.\textsuperscript{135}

The complete elimination of the shareholder as an important element in corporate finance and management came in the 1950s and after, first with the development of the Modigliani-Miller Theorem, for which its authors Franco Modigliani of MIT and Merton Miller at the University of Chicago won the Nobel prize.\textsuperscript{136} The theorem states that in a perfectly functioning market for corporate finance the value of the firm is invariant to its ratio of equity to debt. The implication was that stock "ownership" was really nothing more than an alternative way of supplying capital to the corporation.

The nineteenth century idea of the shareholder as actively involved in corporate decision making had lost its vitality except as to very large shareholders. The development of the Efficient Capital Market Hypothesis (ECMH) in subsequent years even served to minimize the role of the shareholder as stock "picker." Under rational expectations theory random choice works just as well as extensive research, for the result of the research would be reflected in the stock price already.\textsuperscript{137} The extreme result today,


of course, is the index fund, in which the average shareholder knows virtually nothing about the corporations whose shares he owns -- cannot name their CEOs or perhaps even identify the products that they manufacture.\textsuperscript{138} This neoclassical vision of separation of ownership and control was far more extreme than anything that Berle and Means had ever contemplated. It was also just as clearly not a part of classical legal thought.

The Labor Problem

In labor law, by contrast to corporate finance, the marginalist position was taken up by progressive reformers, while traditionalists clung to classical views. The classical theory of wages was expressed in the "wage fund doctrine," developed most extensively in the work of David Ricardo and culminating in the writing of John Stuart Mill until he abruptly rejected it relatively late in life.\textsuperscript{139} Under the wage-fund theory the rate of wages was thought to be a function of the surplus remaining from production and sale during the previous business period. During each business cycle a firm would produce, sell and pay wages and return on capital. The surplus that remained after these payments were made was a "fund" that could be used to pay wages during the subsequent period.\textsuperscript{140} This surplus had to be divided among the workers and thus determined both the number that could be hired and the rate they could be paid. A firm could pay more only by


\textsuperscript{138}HOVENKAMP, OPENING, supra note 5 at 182-183.


\textsuperscript{140}\textit{See} ANTONELLA STRATI, \textit{THE THEORY OF WAGES IN CLASSICAL ECONOMICS: A STUDY OF ADAM SMITH, DAVID RICARDO, AND THEIR CONTEMPORARIES} (Joan Hall, tr., 1994).
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exhausting the surplus and borrowing against the future. This would produce business distress, failure, and unemployment and starvation for the workers. As a result everyone, including the workers themselves, had an interest in ensuring that the aggregate amount of wages paid in a second period did not exceed the surplus left over from the previous period.

American political economists in the classical tradition generally supported the wage fund theory. As Arthur Latham Perry, an American economist at Williams College, explained it in the mid-nineteenth century:

That which pays for labor in every country, is a certain portion of actually accumulated capital, which cannot be increased by the proposed action of government, nor by the influence of public opinion, nor by combinations among the workmen themselves. There is also in every country a certain number of laborers, and this number cannot be diminished by the proposed action of government, nor by public opinion, nor by combinations among themselves. There is to be a division now among all these laborers of the portion of capital actually there present.142

Perry vision of the "iron law of wages," as it was sometimes called, confirmed that both government minimum wage laws and union activity would be useless. Neither could raise wages beyond the amount that the fund made available. If they attempted to do so the result would be firm bankruptcy and unemployment.

Nevertheless, by the Gilded Age some American political economists were seeing important qualifications. The history of Brown University President Francis Wayland's highly influential text illustrates the changes. Wayland's *Political Economy* was originally published in 1837 and stated a very orthodox version of the wage fund theory, very likely taken from David Ricardo. Wayland's book went through many editions, and was continued after his death in 1865 by Aaron L. Chapin, an important economist in his own right and also the founding President of Beloit College. Chapin acknowledged in his preface to the 1879 edition of Wayland that he had read Jevons, the English marginalist. He then proceeded to develop an early marginal utility theory of wages. The real value of wages, he wrote, was anticipated production -- "a hopeful opportunity for increasing wealth by the profits of production." To that end,

the employer did not actually draw money out of any previously accumulated fund. "More likely what is needed for wages will be borrowed from the bank, in anticipation of coming sales."\textsuperscript{143} In his 1881 lectures on political economy, prepared for his classes at Johns Hopkins and Michigan, Henry Carter Adams took the same position,\textsuperscript{144} as did Francis Amasa Walker of MIT.\textsuperscript{145}

Some American Traditionalists such as Yale’s William Graham Sumner defended the wage-fund theory right through the Gilded Age by mocking emergent marginalism’s expected value theories. The marginal productivity theory of wages, he scoffed, imagined "that a man who was tilling the ground in June could eat the crop he expected to have in September, or that a tailor could be wearing the coat which he was making."\textsuperscript{146}

Of course, Sumner was missing the point. The fact that the rate of wages depends on expected marginal contribution of the laborer does not mean that the final payoff from the marginal contribution must already be there before a salary check could be written. It was not the existence of the money but the rational expectation that it would come that drove the marginal contribution theory of wages.

By the turn of the century marginalist economists were uniformly seeing wages as determined by rational expectations concerning employee contribution. John Bates Clark wrote a highly generalized argument that in a competitive market the value of every factor of production, including labor, would be its marginal productivity.\textsuperscript{147} For each worker wages were limited by that workers marginal contribution to the employer. If a worker's labor promised to increase firm value by 25¢ per hour, then the employer would pay any wage up to that amount. If it paid less it could retain the excess as a surplus, but it would stop hiring rather than pay more.

This "marginal productivity" theory of wages completely upended the classical wages fund theory, and many young marginalist economists in the

\textsuperscript{143}FRANCIS WAYLAND, THE ELEMENTS OF POLITICAL ECONOMY 170 (recast by Aaron L. Chapin, 1879). The first edition of Wayland's text came out in 1837

\textsuperscript{144}HENRY CARTER ADAMS, OUTLINES OF LECTURES ON POLITICAL ECONOMY 61-62 (1881).

\textsuperscript{145}Francis A. Walker, The Doctrine of Rent, and the Residual Claimant Theory of Wages, 5 Q.J. Econ. 417 (1891); Francis A. Walker, The Source of Business Profits, 1 Q.J.Econ. 265 (1887).

\textsuperscript{146}William G. Sumner, "Wages," in COLLECTED ESSAYS IN POLITICAL AND SOCIAL SCIENCE 36, 50 (1885).

\textsuperscript{147}John Bates Clark, WAGES AND INTEREST AS DETERMINED BY MARGINAL PRODUCTIVITY, 10 J. POL. ECON. 105 (1901).
United States cut their teeth developing its various implications, including criticism of Supreme Court decisions that struck down minimum wage laws.\(^\text{148}\) For example, George G. Groat, an economist from the University of Vermont, attacked the Supreme Court's 1923 *Adkins* decision by contrasting the "legal wage" theory, which he identified with the wages fund and economic Substantive Due Process, with the "economic wage," identified with the marginal utility theory.\(^\text{149}\) Under that theory "marginal men get what they produce."\(^\text{150}\)

As Groat's essay reflected, for more progressive leaning marginalists an important corollary of the new theory was that labor, particularly unskilled labor, was not getting its fair share of productivity. Under perfect competition every factor of production, including labor, would earn its "marginal net product." But that was where the rub came in. A broad consensus believed that employer markets were by and large much less competitive than labor markets. As a result wages tend to be lower than marginal productivity, and often were driven to subsistence levels.\(^\text{151}\)

Not everyone shared these policy views, however. Some believed that both production and labor were competitive, and wages should be wherever free market bargaining placed them.\(^\text{152}\) Further, the free flow of labor would incline it to move to its highest value level. But the important point is that the battle line was drawn in a very different place than the "classical-progressive" dichotomy would suggest. Even among those who opposed minimum wage law and unions the wage-fund doctrine had no place.

### Social Policy and the Distribution of Wealth

Between roughly 1880 and 1935 marginalist social (welfare) economics went from the political left to the right. The early marginalists believed that interpersonal comparisons of utility were possible. Because wealth has declining marginal utility total welfare would be greater as wealth was more evenly distributed. Redistribution entailed that the wealthier person, who valued the marginal dollar by less because he already had so many, would

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\(^{148}\) *See* HOVENKAMP, ENTERPRISE, *supra* note 17 at 193-198.

\(^{149}\) *See* George G. Groat, *Economic Wage an Legal Wage*, 33 YALE L.J. 489 (1924) (discussing *Adkins v. Children's Hospital*, 261 U.S. 525 (1923)).

\(^{150}\) Groat, *id.* at 491, relying on JOHN BATES CLARK, *THE DISTRIBUTION OF WEALTH*, chs. 7,8 (1899).

\(^{151}\) *See* HOVENKAMP, OPENING, *supra* note 5 at 269-270.

give up much less in welfare than the poor recipient, for whom each dollar provided much more utility. These ideas were accepted, although sometimes qualified, by British marginalists William Stanley Jevons, Alfred Marshall,153 and Arthur Cecil Pigou.154 They were also embraced by mainstream American economists, including Frank Taussig (Harvard), John Bates Clark (Columbia), Simon Patten (Penn, Wharton Business School), Jacob Viner (Chicago), Irving Fisher (Yale), and Edwin R.A. Seligman (Columbia).155

For most mainstream neoclassicists the "ordinalist revolution" of the mid-thirties changed these views rather decisively. Lionel Robbins and later John Hicks began to argue that interpersonal comparison of utilities was a scientific impossibility. Doing them required cardinal assessment of states of mind, which are fundamentally noncomparable. As a result, any statement about the welfare effects of an involuntary wealth transfer was purely "normative," not scientific.156 From that point on neoclassical welfare economics developed its ideas of efficiency mainly from Pareto, which eliminated the need for interpersonal utility comparisons. In the

153 ALFRED MARSHALL, PRINCIPLES OF ECONOMICS 108 (1890)
154 ARTHUR C. PIGOU, THE ECONOMICS OF WELFARE 89 (London: Macmillan, 1924; 4th ed. 1932) (a “transference of income from a relatively rich man to a relatively poor man of similar temperament, since it enables more intense wants to be satisfied at the expense of less intense wants, must increase the aggregate sum of satisfaction.”).
155 See 1 FRANK WILLIAM TAUSSIG, PRINCIPLES OF ECONOMICS 132 (New York: Macmillan, 3d ed. 1921) (“inequality of incomes brings a less sum of human happiness than equality of incomes”); John Bates Clark, The Ultimate Standard of Value, 1 YALE REV. 258 (1893); Simon N. Patten, The Scope of Political Economy, 2 YALE REV. 264 (1894) (similar); Jacob Viner, The Utility Concept in Value Theory and Its Critics (pts. 1 & 2), 33 J. POL. ECON. 369, 638 at 644 (1925) ("Changes in the relative distribution of income as between different classes will bring about changes in the amount of welfare, even though the aggregate real income of the community remains the same"); Irving Fisher, A Statistical Method for Measuring “Marginal Utility” and Testing the Justice of a Progressive Income Tax, in ECONOMIC ESSAYS CONTRIBUTED IN HONOR OF JOHN BATES CLARK 157–93 (J.H. Hollander ed., New York: Macmillan, 1927); Edwin R.A. Seligman, Progressive Taxation in Theory and Practice, 9 PUB. AM. ECON. ASS’N 1, 132–33 (no. 1/2 1894);
156 LIONEL ROBBINS, AN ESSAY ON THE NATURE & SIGNIFICANCE OF ECONOMIC SCIENCE (2d ed. 1935). See HOVENKAMP, OPENING, supra note 5 at 110-113.
process, however, the new welfare economics very largely removed questions about the distribution of wealth from economic science.\footnote{157}{E.g., I.M.D. Little, A Critique of Welfare Economics (1950). See the important review by Kenneth Arrow. 41 Am. Econ. Rev. 923 (1951). Under the Pareto principle a policy is efficient only if no one opposes it; as a result interpersonal utility comparisons are unnecessary; under a "potential Pareto" potential (Kaldor-Hicks efficiency) a policy is efficient if the gainers gain enough to compensate the losers fully -- thus in effect creating a Pareto improvement if compensation were to occur. Once again, interpersonal comparisons of utility are not necessary.}

While the effects of the ordinalist revolution has dominated mainstream economics, it never produced complete consensus. More left leaning economists in particular have resisted the implication that questions about the distribution of wealth are purely normative, particularly as they relate to productivity rather than consumption.\footnote{158}{E.g., Thomas Piketty, Capital in the Twenty-First Century (1914); Joseph Stiglitz, The Price of Inequality: How Today’s Divided Society Endangers Our Future (2012).} In addition, American institutionalist economists largely ignored the ordinalist revolution. By the mid-1930s when Robbins wrote, institutionalism was being expelled from mainstream economics. It mantle was picked up by the Legal Realists, however, who effectively became the "legal division" of institutionalism. The result was a sharp division between legal policy and neoclassical welfare economics that dominated government welfare policy through the 1970s.\footnote{159}{Hovenkamp, Opening, supra note 5 at 110-122.}

Today, the economic battle over the role of the State in wealth distribution has very little to do with the division between classical and progressive legal thought, and not much to do with Social Darwinism either. Rather, within economic and policy circles it is between economists who are all marginalist but who nevertheless have very different views about the relationship of incentive, public support, wealth distribution, consumption, and productivity.

**Conclusion**

Marginalism in economics was truly a world-changing idea. By the 1920s there were very few dissenters. Progressives made up an important part, but only a part, of their number. A more useful way to view our legal and policy past is not as a conflict between classical and progressive legal thought, but rather as a debate among thoughtful people, all of whom
accepted that the classical world was gone forever.