Post Keynesian Price Theory

This book sets out the foundation of Post Keynesian price theory by developing an empirically grounded pricing model and production schema. The administered, normal cost, and mark up price doctrines are explained in parts I–III of the book, as many of their theoretical arguments are important for developing the subsequent foundation. The work of Gardiner Means, Philip Andrews, and Michal Kalecki is discussed, as well as that of the developers of the doctrines such as Edwin Nourse, Paolo Sylos Labini, Harry Edwards, Josef Steindl, and Alfred Eichner. Drawing upon the arguments and formal modeling offered by the doctrines in conjunction with empirical evidence from 100 studies on pricing and production, an empirically grounded pricing model and production schema are developed; it is then argued that the model and the schema together constitute the foundation for Post Keynesian price theory.

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Contents

Figures and tables

Figures

Tables

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Part I

The doctrine of administered prices

1 The origin of the doctrine of administered prices: from the modern corporation to industrial prices

Gardiner Means was born on June 8, 1896 in Windham, Connecticut, and spent his pre-college days growing up in Massachusetts and Maine. He entered Harvard in 1914 and majored in chemistry, and with the outbreak of war in 1917 he enlisted in the army. In 1919 he joined the Near East Relief, and after completing his stint, Means entered Lowell Textile School in September 1920, a decision prompted by his experience of hand-weaving in Turkey. After two years of studying wool manufacturing, he left in March 1922 to set up a textile enterprise making a high-quality (and high-priced) woven blanket of his own design that was quite different to any made by other blanket manufacturers. Through the running of his business enterprise, Means became well acquainted with the Boston wool market and the textile machinery market, and quickly came to the conclusion that American industrial life was very different than what he had experienced in the oriental bazaar in Harput. In particular, Means found that while the prices of cotton and wool varied continuously as in a bazaar, the prices of cotton and wool yarns did not. He thus deduced that the pricing process for the yarns was significantly different from the pricing process for cotton and wool. Means also found himself setting his price prior to any transaction in the market and then engaging in many sequential transactions at this price.[1] For one five-year period in the 1920s, he maintained the same price, even though his costs and sales varied, and sold many thousands of blankets. When Means did change his price in 1929, he did so more in response to a fall in the price of wool than to a decline in sales and the subsequent price was also administered to the market. In any event, Means felt that he was acting

[1] This kind of entrepreneurial acumen was not new to Means, for his uncles had introduced administered prices to the shoe business before 1900 and made a small fortune by advertising "The Means' $4.00 Shoe" with administered wholesale prices (Means, 1964*m*).

rationally in adopting such a price policy (Means, 1933, 1975d, 1983, 1986*i*; University of Lowell, n.d.*u*; Carter, 1934; Ware, 1988*m*; and Lee and Samuels, 1992a).

While still maintaining his textile enterprise, Means became interested in the causes of business depressions and unemployment and therefore decided to take some economic courses in the Harvard Graduate School to find out how the American economy operated. In February 1924, he entered Harvard as a graduate student in economics. The course he took from William Ripley on the corporation and industry undoubtedly met this goal. Between 1924 and 1927 Ripley's course dealt with railroads, trusts, and corporations. Moreover, he argued, both in his classes and, subsequently, in his best seller, *Main Street and Wall Street* (1927), that the dispersion of stock-ownership was permitting the senior level management and directors of the corporation to enrich themselves at the expense of the stockholders. In addition to Ripley's course, Means took a course titled "Valuation" and thus spent the 1926 Spring semester listening to James Bonbright, who commuted from Columbia University, lecture on public utility regulation. As for economic theory, Means took courses from Frank Taussig and Allyn Young. He was introduced to the writings of Smith, Ricardo, Mill, the Austrians, Marshall, and Edgeworth. In addition, he was also probably introduced to Walrasian general equilibrium at this time, as presented by Gustav Cassel in his book *The Theory of Social Economy* which first appeared in English in 1923. In spite of his excellent introduction to neoclassical economic theory, Means found it hard to take it seriously as a theory which could explain the operations of the American economy of the twentieth century (Blitch, 1983; Weintraub, 1983; Mason, 1982; Carlson, 1968; Means, 1960*m*, 1975d; Green, 1986*p*; Hon. 1987*p*; Law, 1986*p*; Lee, 1990b; Lee and Samuels, 1992a).

When Means went up to Harvard in 1924, Alfred Marshall's *Principles* (1920) formed the background theoretical core which all graduate students were supposed to know, and it remained so well into the 1930s, even after Edward Chamberlin's book *The Theory of Monopolistic Competition* (1st edn, 1933) was published. Moreover, it was common practice among the Harvard economists (as well as among nearly all economists influenced by Marshall) to teach that the economics of Smith, Ricardo, and Mill were substantially the same as the economics of Marshall, Edgeworth, and even Walras. This espousal of the "continuity thesis" (or the "non-marginal revolution thesis") bred the feeling among economists that they were following in the footsteps of the great figures in the field and that Marxian and Institutional economists were outside the fold. Students such as Means, came out of Harvard espousing the "continuity thesis" and continued to do so for the rest of their professional careers. However, unlike the majority of his fellow students, Means used the "continuity thesis" to entirely reject neoclassical economic theory as being completely irrelevant to the US economy of the twentieth century. By the time he received his MA in 1927, Means had become quite disappointed with orthodox theory (Lee and Samuels, 1992a).

The modern corporation and private property

Soon after completing his MA, Means was approached by Adolf Berle to assist him on his research project on the modern corporation. He accepted the offer and was hired as a statistical and research assistant. Means collected the statistical evidence and provided the economic analysis while Berle provided the legal analysis, and the result of this collaborative effort was their book *The Modern Corporation and Private Property* (1932) (see Lee, 1990b).

Berle viewed the research project as a vehicle through which he could show the changes in property rights brought about by the existence of the corporate enterprise. In particular, he sought, through statistical, economic, and legal analysis, to verify his thesis that corporate management was moving towards a corporate oligarchy through encroaching upon the property rights of the stockholders and to advance his fiduciary theory of corporations (Berle, 1929*m*). Berle restricted the project (and hence *The Modern Corporation*) to

> the relations between the corporation as managed by the group in control, and those who hold participation in it – its stockholders, bondholders, and, to some extent, its other creditors. (Berle and Means, 1932, p. 8)

Thus while he carried out the legal analysis, Berle directed Means to determine the relative importance of large corporations in the American economy and the dispersion of stock ownership, since the former would determine the extent of the system of corporation finance in the economy while the latter would indicate the extent "that a small, dominant management group [could] control the business operations of any corporation of reasonable size" (Berle, 1928, p. 190).

Believing that Berle's distinction between management and ownership lacked economic significance, Means worried that his statistical work on the corporation would not be effectively utilized. Thus, he convinced Berle that instead of thinking in terms of ownership and management, it would be more useful to employ three distinct concepts – ownership, control, and management. Separating ownership from control and management, Means defined "ownership" as solely owning the shares of the corporation. In distinguishing the latter two concepts, Means defined "management" as those individuals who actively ran the day-to-day affairs of the corporation and were responsible for its technical and financial health. For Means, management of the corporation consisted primarily of both the senior and junior officers and the board of directors. On the other hand, he defined "control" as power to direct the corporation's activities and determine the distribution of corporate profits. Since the legal control of the corporation resided in the board of directors and senior management, Means located the controllers of the corporation in any individual, or group of individuals, who had the power to select the directors. This threefold distinction, however, did not affect Berle's legal investigations because he was concerned only with the activities of the directors and the senior officers of the corporation with regard to the stockholders, and not with the economic problems that emerged with the separation of control. On the other hand, it did permit Means to analyze the theoretical implications the separation of ownership and control had for neoclassical economics (Berle and Means, 1932; Eichner, 1980; and Means, 1931c).

Means' statistical research showed, for the first time, how large the modern non-financial corporations were, the extent to which they controlled aggregate non-financial assets and net income and dominated the economic landscape, and the extent of the separation of ownership from control among them. He then proceeded to argue that with the separation of ownership from control, it was possible that the interests of those who controlled the corporation could diverge from its owners – as, for example, by pursuing a policy of personal enrichment to the detriment of the owners.

In assessing the legal implications of the separation of ownership from control, Berle first noted that historically the rise of the corporation had been accompanied by a shift in power from the shareholders to the controllers of the corporation. He then discussed the legal mechanisms and devices through which the board of directors and senior management had obtained the power to determine the stock participation rights of stockholders, to determine the routing of earnings as between shares of stock, and to alter the original contract rights of security holders. Thirdly, as a prelude to delineating his fiduciary theory of corporations, he argued that common law had both the board of directors and senior management and the controllers standing in a fiduciary capacity towards the corporation. Since the shareholders owned the corporation, Berle felt justified in concluding that corporate powers were powers in trust to be used in the interest of all shareholders, thus *repairing legally the possible* *breach between owners and controllers that Means suggested came with the separation of ownership from control*. The final aspect of Berle's legal investigations concerned the problem shareholders faced in the stock market due to the power the directors and senior management have in manipulating share prices.

Ownership, control, and neoclassical economics

In addition to his statistical work, Means also contributed all the economic arguments found in *The Modern Corporation*. Prior to 1932 Berle was not terribly interested in economic arguments *per se*. Thus it is highly likely that he let Means draft Book IV (which he then rewrote to reflect upon his particular style). In this book, Means drew out the implications that the separation of ownership from control had for traditional theoretical roles of private property, wealth, and the profit motive in directing economic activity and increasing social welfare. He also elaborated on these themes in a subsequent theoretical manuscript written after *The Modern Corporation* was completed. In the manuscript, which was submitted as part of his dissertation but rejected, Means assessed the implications of the separation of ownership from control and of corporate "bigness" for neoclassical economics (Means, 1933).[2]

With the separation of ownership from control, Means argued, the concept of private property split into two distinct categories – passive and active property. The former consisted of shares of stocks and bonds, each representing a claim on industrial wealth and a stream of income, while the latter consisted of the tangible property and goodwill that made up the corporation. One result of this is that the traditional concept of wealth found in neoclassical theory changes and divides. For the holder of passive property, wealth becomes "a bundle of expectations which have a market value and which, if held, may bring him income and, if sold in the market, may give him power to obtain some other form of wealth," while for the possessor of active property, wealth "means a great enterprise which he dominates, an enterprise whose value is for the most part composed of the organized relationship of tangible properties, the existence of a functioning organization of workers and the existence

[2] Absent from the manuscript is any discussion about profit maximization and its applicability to the modern corporation. In spite of the claims made by many economists, Means never considered this question to be one of the book's arguments, for two reasons. First, he accepted Berle's fiduciary theory of corporations which was designed to repair the theoretical breach between the owners and the controllers. Secondly, up until the late 1940s, Means believed that the managers and controllers strove to maximize the profits of the corporation.

of a functioning body of consumers'' (Berle and Means, 1932, pp. 305–6).

The emergence of passive and active property mirrored another development, Means argued, that of splitting the traditional theoretical picture of the saving–investment process into two independent stages under the control of separate groups of individuals. One group included those individuals in the economy who save through buying corporate securities and the second included the controllers of the corporations who decide to add to the corporations' capital stock and thus issue new securities with which to obtain the funds for this expansion. With two independent processes occurring, Means did not expect that the market for securities would operate in the same fashion as the market for capital goods. To illustrate the first claim, he constructed an example in which individuals continued to save at the same rate while the corporate enterprises decided to cease buying capital goods and issuing new securities. In such a situation the economy would be in disequilibrium which would, if possible, be corrected by the movement of prices in opposite directions in the capital goods and the securities markets. Similarly, he argued that if individuals wanted to reduce their savings rate in an effort to increase their level of consumption while corporate enterprises' issuance of new securities remained unchanged, the net result would be the destruction of the passive wealth of the individuals without any increase in the amount of goods which individuals could consume. To illustrate the second claim, Means briefly argued that prices in the securities market were extremely flexible and thus operated according to the laws of supply and demand, while prices in the capital goods market were in comparison relatively stable and moved quite independently of each other, thus resulting in the value of capital goods being different from the value of securities representing them. In short, Means concluded, the splitting of the savings–investment process due to the separation of ownership from control ultimately resulted in the rise of separate and dissimilar capital markets which need not always be in consonance, thus undermining the smooth and harmonious coordination of economic activity pictured by traditional economic theory (Means, 1933, pp. 18–21).

With regard to the profit motive, Means argued that in neoclassical economic theory, surplus profits (i.e. the profits which remain after interest on capital and wages of management have been deducted) acted as a return for the performance of two separate functions – the taking of risk and the directing of the enterprise so as to maximize its profits. However with the emergence of the modern corporation and the separation of ownership from control, the two functions were now performed by two different groups of people, with the owners risking wealth and the controllers directing the corporation. Consequently, Means argued that the allocation of profits must be such that, if the profit motive was to be the guiding force in directing the corporation's economic activity so as to promote the community's welfare, the owners should get only the amount needed to compensate them for their risk (i.e. provide them with a satisfactory return), and the rest should go to the controllers as an inducement to the most efficient management and direction of the corporation.

Means noted that the legal system prevented such a division of profits, thus preventing the profit motive from having its maximum impact on social welfare. Moreover, because of diminishing managerial motivation with regard to increasing income, Means was not sure that the huge amount of surplus profits that could be diverted to the controllers would in fact spur them on to significantly better management and hence to significant increases in social welfare. In addition, he questioned the effectiveness of the profit motive to direct economic activity so as to increase social welfare because of the decline of the effectiveness of competition to regulate economic activity due to the rise of the modern corporation. Finally, Means wondered if the community's welfare would suffer if the rest of the surplus profits were given to the controllers since, it would undoubtedly increase the immense amount of economic power they already had in the economy. Thus he concluded it was simply not possible to blindly believe that, in an economy where the large corporation and the separation of ownership from control predominated, the profit motive as neoclassical theory pictured it was a socially benefitting and effective motivating force with regard to the directing of economic activity (Berle and Means, 1932; Means, 1933).

Corporate size and neoclassical economics

Means' statistical research relating to the size and economic dominance of the modern corporation led him in a series of articles and *The Modern Corporation* to question the adequacy and relevance of many theoretical concepts found in neoclassical price theory. First of all Means, armed with his facts, argued that Marshall's concept of the representative firm or the small owner–worker enterprise had ceased to be a relevant tool for economic analysis since the "representative" enterprise in twentieth-century America was the large corporation with many thousands of owners and employees and which dominated one industry after another. Individual initiative had consequently largely been replaced by group activity and co-operation. Moreover the nature of competition had also altered; the principles of duopoly were now more important than those of free competition. In particular, the large corporation, simply by virtue of its size, could affect market prices even though it was not a monopoly. Secondly, Means argued that the size of the corporate enterprise was neither limited by the wealth of the individual owners nor by technological inefficiency. Its size was rather limited only by the controllers' ability to administer the corporation's activities successfully; however, there was no reason why the controllers, given their ability, could not devise an appropriate administrative form necessary for successful management. Hence the notion of the "optimum-size enterprise" found in neoclassical price theory was simply irrelevant for the study of the modern corporate enterprise. Thirdly, Means noted that the corporation's costs of production were indeterminate. Finally he argued that administration and co-ordination of economic activities by management had largely replaced the co-ordination of economic activities by the forces of supply and demand in the market place. That is, the large corporation had internalized production activities that were once found in the market and subjected them to administrative co-ordination, while also entering directly into the market to co-ordinate activities on its own behalf (Means, 1931a, 1931b, 1983c; Berle and Means, 1932).[3]

Because the main theoretical focus of *The Modern Corporation* was on the implications of the separation of ownership from control, Means did not follow up these other theoretical implications until he turned to writing his dissertation. In the manuscript, he presented a more developed argument of how the existence of the large corporation called into question the "scientific" validity of neoclassical price theory. Restricting himself to what he considered the most fundamental postulates of the theory – the principle of supply and demand in determining prices, and the determinacy of costs – Means argued that they could not be sustained in their traditional form once the large corporation became a dominant feature of the economy. In particular, he argued that the demise of the principle of supply and demand in determining prices rested primarily upon the mere size of the corporate enterprise, as opposed to the separation of ownership from control. Means consequently devoted a part of the manuscript to the concept of administered prices and its destructive implications for the supply and demand determination of

[3] Means' rejection of neoclassical price theory as a tool for examining the US economy of the 1930s comes out quite strongly in a letter to Walker D. Hines of the Cotton Textile Institute written in December 1931. In the letter, Means objected to Isaiah Sharfman's critique of Hines' plan for regulating the cotton textile industry because it was based on neoclassical economic theory which was at complete variance with market realities, even in such a competitive industry as cotton textiles (Galambos, 1966).

prices. He also devoted a part of the manuscript to the indeterminacy of costs of the large corporation.

When discussing the management of a business enterprise, Marshall, in his *Principles of Economics*, had argued that the businessman undertook two distinct but specific activities – that of taking risks and that of organizing and supervising production. The first activity he equated with speculating or the buying and selling of existing goods by middlemen; the second he viewed as administrative or engineering activities (Marshall, 1920, p. 293). Means accepted this distinction, and went on to note that, for the large modern corporation, its primary economic activities were administrative. Internally the corporation administered its productive activities while externally it administered its prices to the market. Consequently, in an economy dominated by the large modern corporation, the character of the market altered in that the market price became a matter of administration rather than a matter of trading. Thus Means became concerned with the theoretical questions of how an administered price market operated and how its operation differed from the operation of a trading market assumed in neoclassical price theory. He answered both questions by arguing that in an administered price market prices were fixed by administrative fiat before transactions occurred and held constant for periods of time and hence for sequential series of transactions, and that supply and demand never equated except by coincidence.

To illustrate the concept of administered prices and their impact on the operations of the market, Means developed an elaborate example, based on a department store, in which he argued that variations in demand (or sales) would not affect the administered price, but rather affected the rate at which goods were sold; that variations in supply (or quantities of a good available for sale) would not affect the administered price; and that the administered price could be maintained for a series of transactions at which supply and demand were not equated. In addition, Means varied the time period covered by the supply and demand curves to show just how fortuitous the equation of supply and demand would be in an administered price market. As a result, he concluded that administered prices were neither long- nor short-period prices and, as a consequence, that administered price markets could not be described by the traditional tools and concepts employed by economists:

> We are dealing with a phenomenon which conforms neither with the economist's short run nor with his long run supply and demand curves. Whereas there may be a tendency for the proportionate discrepancy between supply and demand to decrease in the long run, there is *no* tendency for the absolute amount of the discrepancy to decrease. One must, therefore, say that the supply and demand

curves which so neatly cross in the economist's traditional description of the market cannot be employed to describe this market. (Means, 1933, p. 14)

In an effort to fully flesh out the nature of administered prices and their impact on the workings of the market, Means ended this part of the manuscript by delineating three additional features. First, with respect to price changes, he stated that administered prices changed in discontinuous jumps. He also stated that administered prices could either be sensitive or insensitive to variations in sales or inventories. Sensitive administered prices could be identified as those which remained constant for days at a time but having upwards of 50 or more discontinuous price changes per year, such as the administered price for standard cotton yarn; while insensitive administered prices, on the other hand, could be identified as those which remained constant for months or years at a time, such as the administered prices for automobiles, *The Saturday Evening Post*, or the New York subway. In either case, Means argued, after the price changes had been made, there would be no more justification to suppose that supply and demand had been equated than before under the initial administered price. Lastly, Means dealt with the employment of the factors of production in markets dominated by relatively insensitive administered prices in comparison to markets dominated by highly flexible prices. He noted that in administered price markets, variations in demand – and hence production (and sales) – resulted in variations in the employment of labor and capital, in part because their respective prices, wage rate, and interest rate were also *administratively determined*. However, in markets dominated by highly flexible prices, variations in demand would be entirely played out through changes in the market price, leaving both the level of production (and sales) and the employment levels of the factor inputs unaffected. This asymmetrical response to demand, Means concluded, was perhaps the explanation for the differing impact the Great Depression had on the agricultural (trading) and industrial (engineering) sectors in the economy – in the former prices declined while production and employment remained relatively stable, in the latter prices remained stable while production and employment declined (Means, 1933).

In the chapter on costs, Means provided additional support for his position that the traditional neoclassical tools and concepts could not be used to describe administered price markets. In this case, Means argued that in the modern corporation the costs of producing a specific good were completely indeterminate from the perspective of neoclassical cost theory because of the prevalence of joint costs and joint utility. While joint costs could arise from a variety of sources, such as from carrying a full line of goods to promote the sales of any particular one, he argued that the most significant source of joint costs came from the large size of the modern corporation itself. That is, as the business enterprise increased in size, production of a specific good became increasingly an inter-related and vertically integrated process so that a specific input became used in the production of more than one good. Hence it became increasingly important for the accountant to accurately allocate the costs of the multi-use inputs if the precise costs of a specific good was to be known. However, with the emergence of the large corporation and the resulting increased complexity of production, it became impossible for management and its accountants to ascertain the specific costs incurred in the production of a particular product. As for joint utility, Means argued that since the large corporation had a high degree of vertical integration, the cost of any product was dependent on two or more inputs, thus greatly increasing the confusion in trying to determine its specific costs. Means thus found it impossible to escape from the conclusion that the costs of goods produced by the modern corporation were completely indeterminate from the perspective of neoclassical cost theory. Consequently, it was not possible to utilize neoclassical cost theory – and, by extension, enterprise and market supply curves – to describe and analyze administered price markets (Means, 1933).

Advisor to Wallace, 1933–1935

On March 4, 1933 Roosevelt appointed Henry Wallace as Secretary of Agriculture. Faced with the crisis in agriculture and the need to develop recovery programs and legislation, Wallace realized that he would have to expand the staff associated with the Office of Secretary both to cope with the increased workload and to acquire information that neither the traditional staff nor his bureau chiefs could provide. On March 6, he established the position of Economic Advisor to the Secretary and selected Mordecai Ezekiel to fill it. Drawn together by their strong interest in statistics, their concern for bettering the economic and social lot of the farmer, and their views favoring production controls, Ezekiel proved to be an indispensable aid to Wallace. In particular, Ezekiel helped draw up the Agricultural Adjustment Act which established the Agricultural Adjustment Administration (AAA) and select the personnel to carry it out. Wallace also turned to Ezekiel for advice about agricultural policy. At this same time Rexford Tugwell, who was also concerned about the economic plight of the farmer and thought that production control was the way out of the agricultural crisis, was appointed as Wallace's Assistant

Secretary (Kirkendall, 1966; Saloutos, 1982; Macmahon and Millett, 1939; Baker *et al.*, 1963).

Even though the AAA was just two months old, it had become obvious to Tugwell and Wallace that its success depended to a large degree on the recovery of the industrial sector, and hence on the recovery policies of the National Recovery Administration (NRA). Thus to obtain the kind of specialized information they needed, Wallace established, under Tugwell's prodding, another advisory position to be filled with an individual who would busy himself in seeing the staff aides of other federal agencies in order to learn what recovery policies were in hand that would have an impact on the recovery of the farm sector. The individual would then draw up reports of his findings and submit them to Wallace. In this manner, the individual would be able to aid both Tugwell and Wallace in thinking through their points of view regarding the place of agriculture in the whole economy.

As a result of Charles Beard's review of *The Modern Corporation and Private Property* which appeared in the *New York Herald Tribune* in February, Tugwell and Wallace were quite aware of Means and his knowledge of industry. Calling on him at Columbia University where he was teaching an economics course in the Law School's summer session, Tugwell asked Means whether he would consider joining Roosevelt's war on the farm crisis. Means went to Washington to talk with Tugwell and Wallace and the outcome was that Wallace immediately appointed him to the advisory position and gave him the informal title of Economic Advisor on Finance. So instead of pursuing the quiet academic life, Means joined the war effort in June on a part-time basis until he had completed his summer school teaching and then on a full-time basis (Macmahon and Millett, 1939; Baker *et al.*, 1963; Ware, 1982*m*; Means, 1953d*m*, 1986*i*).

Working out of the same office, which was adjacent to Tugwell's, as did Ezekiel and Louis Bean, Wallace's Economic Advisor to the AAA, Means quickly became a member of committees in the NRA and a participant in the growing controversy over the NRA's price policy. Following the signing of the first code of fair competition in July 1933, the code approval process adopted by the NRA permitted or even encouraged inclusion in the codes of many price-fixing and price-stabilizing provisions, such as minimum cost provisions, uniform methods of cost finding, and open price provisions. Members of the Consumers' Advisory Board (CAB) viewed these developments with dismay since they seemed to favor capital over the consumer; in addition, Tugwell and the US Department of Agriculture (USDA) saw the provisions as fostering higher industrial prices and thus canceling out the gains to the farmers brought by the AAA. The concern over the codes was further fueled by the rise in industrial prices that was taking place as they were being approved. In an effort to deal with these concerns, Alexander Sachs, the head of the Research and Planning Division of the NRA, established a number of policy committees, one of which was the Price Policy Committee. The Committee's first meeting was held on September 16, 1933 and the participants included Sachs, John Dickerson, the Assistant Secretary of Commerce, and Means. Soon thereafter Stephen M. DuBrul of the Code Analysis Section in the Research and Planning Division also became a member. Over the next few months the committee concerned themselves with problems of costs, cost formulas, loss leaders, and sales below costs; but, in spite of the memoranda they sent out, the Committee's work had little impact on the ongoing debate over the NRA price policy (Hawley, 1966; Minutes of Committee on Prices, 1933*m*; Carter, 1934; Roos, 1937; Means, 1953d*m*; and Ohl, 1985).

In taking the job with Wallace, Means took it for granted that he would be trying to develop policies and instruments that would make the economy work more effectively. Because he strongly believed that economic matters did not take care of themselves but were subject to a high degree of administrative decision-making, he saw consumer participation in the decision-making process necessary if truly equitable and effective economic policies were to emerge. Since the existence of the CAB was quite consistent with his views, the well publicized resignation of William F. Ogburn, the CAB's first director, in August caught Means' attention. He went to the CAB to talk with its chairperson, Mary Rumsey. She received him graciously into her office, but when she learned that Means was an economic advisor to Wallace, she grabbed his arm and said

> "Young man, come with me." Called her chauffeur, they got in a car and she said to the chauffeur, "Now you just drive around. I don't want to answer any telephones. I want to talk to this young man." (Ware, 1982*m*, p. 44)

For the next few hours Means and Rumsey talked about the consumer's role in the New Deal and found that they were very much in agreement. By the time the ride had ended, Means had agreed to help her find a successor to Ogburn, and on September 26 Rumsey made him a member of the CAB. Although not involved with its day-to-day running, Means did become involved in the CAB's struggle with the NRA's price policy. Many staff members came to adopt his arguments concerning administered prices, concentration, and price control when presenting their critique of the price provisions in the codes at various public price hearings and code-making sessions (e.g. see Ayres and Baird, 1935, pp. 875–9). However, Means' greatest contribution to the CAB was his articulate defense of their position that consumer interest was different from public interest. Basing his argument on the thesis that in an economy dominated by administered prices and where administrative decision-making was the primary form of "market coordination," Means contended that consumer interest was distinct from the public interest, which also included the interests of labor, business, farmers, and others. Hence it was necessary for separate consumer representation in the administrative decision-making process to exist if appropriate economic policies were to be forthcoming that would put the economy back on its feet (Ware *et al.*, 1982; Ware, 1982*m*; *The New York Times*, 1933; Means, 1934; Minutes of Consumer Advisory Board, 1933*m*; Campbell, 1940).

Concerned about the mounting criticism towards the NRA's price policy, the Brookings Institution publication *Price-Control Devices in NRA Codes*, by George Terborgh, spurred Roosevelt to appoint, in May 1934, a Cabinet Committee on Prices, consisting of the Secretaries of Labor, Commerce, and Agriculture, and the Attorney General, to look into the price situation and effects of various code provisions on the price structure. At the Committee's first meeting, a Sub-Committee was established to investigate the price structure of various industries with a view to making recommendations as to the policy that should be pursued in the formulation and revision of the codes. Members of the Sub-Committee included Isador Lubin of the Bureau of Labor Statistics, Leon Henderson of the NRA, Dickerson and Means, who represented Wallace. Prior to the Sub-Committee's first meeting at which its investigative directives would be given a more concrete orientation, Means circulated a short note among the members outlining what he thought they should be. Playing down the significance of the developments toward price control under the NRA, he argued that they were simply an outgrowth

> of the changing characters of the pricing process which has taken place throughout the industrialized parts of the world and has brought price controls of various sorts into operation in other countries . . . [and] . . . of the basic pressure on business men growing out of the changed character of the market . . . (Means, 1934a*m*)

He therefore suggested that the objectives of the investigation should include the testing of "the hypothesis that there has been a radical change in the character of the pricing process," the analyzing and developing of a generalized description of the new pricing process if the hypothesis is sustained, and exploring "the possibilities of pricing processes where the economic machine can be made to function effectively." Means also advocated specific investigations dealing with:

1 The character of modern pricing processes, particularly with reference to price-fixing over periods of time–price rigidity-administered prices
2 Relation of prevalence of administered prices to industrial concentration
3 Relation of fluctuations in price to fluctuations in volume
4 Relation of fluctuations in price to man hours worked
5 Relation of administered prices to wage rates
6 Relation of administered prices to overhead costs
7 Relative adaptability of administered prices
8 Relation of prices, production and profits by industries with particular reference to price rigidity. (Means, 1934a*m*)

However, Means' suggestions did not become the basis of the Sub-Committee's investigation. Rather, with the hiring of Walton Hamilton as the Director of Research in June, the investigations became primarily concerned with "prices as pecuniary manifestations of industries at work" (Henderson, 1934*m*; Minutes of Cabinet Committee on Prices, 1934*m*; Means, 1934a*m*; Hamilton, 1934*m*; Lubin, 1935*m*).

NRA and AAA and the reorganization of industrial policy-making

Washington in the summer of 1933 was overflowing with energy usually only found in proverbial towns on the make; but instead of being directed towards making money, the energy was directed towards making the economy and society healthy again. Politicians and bureaucrats were open to any plans for recovery; explanations for the depression by the Right and the Left were eagerly discussed even if they offended conventional economic dogma; and the pervading atmosphere was that something, anything, had to be done – even if it was wrong! Therefore, it is not surprising that Means' explanation of the Great Depression and plan for recovery received attention in Washington; on the other hand, it is surprising, given the number of competitors, that his analysis of depression and recovery became so influential, especially with members of Roosevelt's administration. When Means began working for Wallace, one of the many explanations for the depression floating around Washington was the purchasing power thesis. The explanation, a favorite of the Liberal-Left, ascribed the cause of the depression to the lack of purchasing power which resulted from the maldistribution of income. In turn, it was argued that the maldistribution of income was caused by the rise of big business and monopoly price-fixing. Yet even at this level of articulation, the thesis was not tightly delineated; consequently, Tugwell could (and, in fact, did) adopt it to explain the "unbalancing" of agricultural and industrial prices and the subsequent depression of the farm sector (Rosenof, 1975, 1983).

Although agreeing in principle with the purchasing power thesis and its application to the farm sector, Means found Tugwell's specific analysis of the depression and the farm crisis, and his plans for recovery ill-formed because he did not adequately take into account the existence of inflexible or administered prices or the impact of business control over the making of industrial policy on the overall balance of the economy. Means attributed the Great Depression to the interaction of specific long-term developments in the US economy:

> those which necessitated great and rapid economic readjustments if the economy was to be kept in balance; those which decreased the flexibility of the economic structure and tended to impede automatic readjustment; and those which transformed the usual economic drives from forces working toward economic readjustment into forces tending to produce further maladjustment and greater unbalance in the economy. (Means, 1935c, p. 74)

With respect to the first developments, Means divided them into two groups, those which were secular developments – such as the disappearance of the frontier; the increase in the production and use of the automobile, bus, truck, and tractor; the development of electricity; technological improvement in industry resulting in greater output per worker; and the shift from a debtor to a creditor nation – and those developments which emerged as a result of the First World War – such as the post-war construction boom; instability of international monetary relationships and the emergence of large international imbalance of trade; the changing status of war debts and reparations; the post-war expansion in American loans; the development of economic nationalism; and the farm debt.

If these developments were not to cause significant dislocation in the economy, it would be necessary, Means argued, for important economic readjustments to take place and this in turn required that the economic system be highly flexible, especially with respect to prices. However, developments had taken place which greatly reduced the flexibility of the American economy and impeded the making of the necessary economic readjustment, the most important of which was the increasing concentration of economic activity resulting in inflexible administered prices. Other developments which also reduced the flexibility of the economy included the building up of internal debt and the inability of governmental institutions to deal with the economic problems growing out of the new conditions established by the rise of economic concentration. In conjunction with these, Means continued, a third set of developments had emerged which had subverted forces which in a flexible economic system would have promoted the required economic adjustment, into those that now aggravated any significant maladjustments once they had developed. The most significant of these developments was the making of industrial policy by individual business enterprises. Instead of industrial policy being made by the impersonal forces of the market place, it was being made in accordance with the enterprise's desire to maximize profits, which generally meant, in face of declining demand, holding prices constant and reducing production. Thus, in place of market forces working to maintain the full use of the nation's resources, the business policies of big business aggravated any initial decline in demand by maintaining prices and throwing workers out of work, thereby doubly reducing the purchasing power of the community. Other positively disrupting factors included the increasing mechanization of production, the increasing importance of consumer capital goods, and the increasing inadequacy of the banking system in the presence of inflexible administered prices (Means, 1935c).

When presenting his analysis to Tugwell and others in the Department of Agriculture, Means found that it was well received and quickly absorbed. His arguments on the relationship of concentration and inflexible administered prices and the relative inflexibility of industrial prices compared to agricultural prices were already familiar to members of the group. Moreover, his analysis of the relationship between inflexible prices and production fitted in quite well with Tugwell's and Wallace's view of the basis of the farm crisis. Thus Means' arguments quickly became employed by his USDA colleagues to critically analyze the negative impact the NRA codes had on the recovery of the farm sector. However, in spite of the attention that his colleagues in the USDA, CAB, and Price Policy Committee gave to his views, Means' arguments did not have any significant effect on the thinking of the policy-makers in the USDA or in the Roosevelt Administration in general. This was, in part, due to the reluctance of many to accept his argument that the rise of industrial concentration, by permitting manufacturing businesses to set inflexible administered prices and flexible production policies, had irrevocably disrupted the automatic price and output adjustment mechanism found in a competitive market economy. It was also in part due to a belief among many that the problem with the NRA and AAA lay in the particular form the codes of fair competition or marketing agreements took. Means' claim that the codes simply reflected the radical changes which had occurred in the making of prices and industrial policy, and that the real problem with the NRA and AAA lay in developing the right kind of techniques that would regulate and co-ordinate all economic activity so as to bring about the full utilization of the nation's resources thus fell on deaf and unconvinced ears (Carter, 1934; Bean, 1952*m*; Kirkendall, 1966; Means, 1934f*m*, 1934g*m*; Frank, 1935*m*).

Believing that the policy-makers would not take his arguments seriously unless they were accompanied by dramatic empirical evidence, Means on his own initiative undertook, starting in late Spring, 1935 a

> statistical analysis of wholesale prices to bring out the basic difference in behavior between farm commodity prices and the administered prices of industry and to help clarify the thinking of the policy leaders in the [USDA] and in the rest of the administration. (Means, 1953d*m*)

Upon the completion of the investigation, he found the results "much more startling and in conflict with the classical analysis than even [he] had expected" (Means, 1953d*m*). Drawing upon his previous analysis of administered prices and a study of the California cling peach marketing agreement made at the request of Wallace, Means used the statistical evidence as a stimulation to writing a paper delineating the reasons for the failure of the NRA and AAA with regard to the making of industrial policy and possible techniques that both the NRA and AAA could use for making better industrial policies. Although the paper was entirely analytical, trying to indicate what the characteristics of the problem were, Means expected it to be used by the makers of industrial policy (Means, 1938a*m*, 1938b*m*, 1952b*m*, 1953d*m*; Frank, 1935*m*; Lee, 1988).

Statistical evidence

To properly determine the extent to which administered prices occurred among the entire population of prices in the American economy, Means would have had to obtain transaction price data from each business enterprise in the economy. Moreover the data itself would have had to be commodity-specific and consist of the transaction price for each transaction of a long series of sequential transactions. In addition he would also have had to obtain information as to how each enterprise in the economy set its selling price, the degree of market concentration held by each business enterprise for each good it sold, and the degree to which market forces influenced the enterprise when setting its prices. Means had neither the time or the resources to carry out such a research project; assuming frequency of price change as a rough indicator of whether a price was administratively determined or determined in the market, he turned to the monthly wholesale price date collected by the Bureau of Labor Statistics (BLS) to carry out his investigation. In 1934, the BLS collected monthly price data on 784 commodities grouped into 10 product categories, with numerous sub-group categories. Even though some of the 784 commodities were composite commodities and thus not suitable for Means' purposes, most of them, being highly specific, were. Each commodity had at least one if not more price reporters from which the BLS obtained their price data. Thus, with permission from the BLS, Means looked at the confidential price reports and gathered both monthly price quotations and frequency of price change on 750 specific commodities.[4] For those commodities which had two or three reporters, he took the average of the number of price changes reported by each of the reporters or, where the number of reporters was more than three, the number of changes by a single reporter which appeared to be typical of the group was taken. The time period covered by the study was 1926–1933, broken down into two four-year periods, one consisting of the pre-Depression years 1926–9 and the other consisting of the Depression years 1930–3. This was done to see if there was any significant change in the frequency of price change or any important shifting of items as a result of the onset of the Depression, such as commodities with relatively infrequent price changes in the pre-Depression years experiencing relatively frequent price changes with the onset of the Depression. The number of possible price changes for each commodity for each four-year period was 47 and hence the total number of possible price changes over the entire eight-year period was 94 (instead of 95 as would normally be the case for an eight-year period) (Means, 1935a*m*, 1935b*m*, 1964*m*; Blair, 1964, 1972).

Upon inspecting the price data collected with regard to a frequency of price change, Means discovered a U-shaped distribution indicating that the economy consisted of two different kinds of prices – administered prices and market prices – and market adjustment mechanisms – market prices adjusting in the market to conditions of supply and demand and administered prices remaining relatively unchanged while economic adjustments were chiefly made by changing the volume of production. Next he related the frequency of price change to magnitude of price change and found that prices with infrequent price changes tended to drop little in the Depression and vice versa. Finally, drawing on production data culled from the *Survey of Current Business* and on agricultural and related data supplied by the USDA Bureau of Agricultural Economics, Means demonstrated the existence of an inverse relationship

[4] In the study, Means left out railroad rates, utility rates, some corporate items, and composite commodities (such as automobiles, harnesses, suit cases, coal, plows, wagons, bricks, cement, gravel, sand, fertilizer, furniture, and tires and tubes). However in those cases where the composite commodities contained two or three items, Means used the separate items as though they were separate and independent commodities (Means, 1935a*m*, 1935b*m*).

between magnitude of price change and production change for the agricultural implements industry and various product groups and subgroups in the BLS wholesale price series (Means, 1934*u*). Thus, through a series of analytical and empirical steps, Means demonstrated that the existence of inflexible administered prices undermined the traditional market adjustment mechanism and thus brought to the forefront the problem of making industrial policy (Means, 1934*u*; Lee, 1988).

Administered prices and industrial policy

To explain how administered prices impaired or destroyed the market adjustment mechanism that was relied upon to maintain the full use of the nation's resources, Means distinguished between industrial policy determined by the impersonal market mechanism and that determined by individual business enterprises. With the rise of concentration of economic activity, he argued, the enterprise now had the power to make a business policy with regard to prices and production that would maximize its profits, with the policy most generally adopted being one in which prices were administered to the market for a period of time and series of transactions and production was allowed to vary in accordance with demand. Consequently, when a decline in demand did occur, these enterprises maintained their prices and let production decline, with the overall result being a multiple decline of production for all of them. In this manner, Means concluded, the making of business policy was also the making of industrial policy. On the other hand, when concentration of economic activity was non-existent, the making of industrial policy was done by impersonal market forces. In this case, the business enterprise was unable to control either its prices or production, with the result that prices changed with nearly every transaction and declines in demand were met by price declines significant enough to maintain production at its original level.

As long as a significant segment of the economy was dominated by business-based industrial policy, the result would be a poorly functioning economy. To correct the situation, it might be thought that business enterprises should be broken up to the point where they would have no power to affect market prices or that government ownership of business enterprises was the solution. However, Means rejected the former because of the technical inefficiencies that would accompany it, and the latter because the problem of a poorly functioning economy was one of a distribution of control not a locus of ownership. Rather, in his view, what was needed was to develop ways to let a wider range of economic groups have a say in the making of industrial policy.

To devise an industrial policy that would balance the economic interests of the various groups in the American economy and would produce the full use of the nation's resources was, in Means' view, the primary purpose of the NRA and AAA. To do this, he argued, they must first identify the

> key decisions for each industry which, if made right, would so condition the other elements of industrial policy that the latter could be left to the actions of individuals and the operations of the market. (Means, 1934*u*, p. 5)

and, secondly, set up a mechanism that would distribute control among the various economic groups in a manner which would get key decisions made correctly. In this context, Means discussed four possible mechanisms which could be adopted by the NRA and AAA, ranging from a code authority made up solely of business persons to a committee consisting of several economic groups, through which the key decisions could be made. Although not advocating any one of the mechanisms, he did suggest that whatever was adopted must be congruous with the existing situation and American traditions if it was to work at all adequately. In closing his discussion, Means noted that any method for determining industrial policy must be supplemented by techniques for dealing with the volume of money, directing the flow of investment, and providing social security (Means, 1934*u*; Lee, 1988).

Reception of Means' conclusions

Thinking the paper important, Means gave it the title "NRA and AAA and the Reorganization of Industrial Policy Making," had it typed up (by August 29) and widely distributed with the following note attached, briefly indicating to the reader its important features:

> I am enclosing a series of four charts which show the very wide extent of *rigid prices* in our economy. They clearly indicate the existence of *two* quite different types of market mechanisms, one of the type described by traditional economists, and the other quite different, yet the dominant influence in our present economy. The character of this second market is of *vital importance to the policies* of the Administration. It is a major element in bringing about the present conditions and indicate clearly the function in our economy which AAA and NRA must perform. The character and implications of this market with respect to NRA and AAA are set forth in the accompanying ten-page memorandum [and appendices]. (Means, 1934b*m*)

The paper quickly generated a great deal of response with regard to Means' statistical and economic analysis and his discussion of industrial policy-making (Means, 1934*u*). Accepting the evidence that the magnitude of many prices did not decline during the downswing in economic activity, the conservative economists and business leaders sought to deflect what they saw as a possible criticism of business practices employed by the large industrial corporations. They argued that the lack of decline in industrial prices was due primarily to forces beyond the control of the individual enterprise or corporation, such as the role of unions in the determination of wage rates, the rigidity of transportation costs and taxes, and the fact that industrial demand was quite unresponsive to price changes in the short term. They felt that by not giving enough stress to these factors, Means had, perhaps unintentionally, laid too much of the blame for the Depression at the feet of the large corporation (Harriman, 1934*m*; Whitney, 1934*m*; DuBrul, 1934a*m*, 1934b*m*). A second response to Means' paper came from economists who disputed the empirical evidence he presented and his criticism of neoclassical price theory. The most negative response in this regard came from Charles F. Roos, an economist in the Research and Planning division of the NRA, who argued that the empirical evidence was nonsense and that

> traditional theory need not be cast aside. It is necessary, however, to add to theory a discussion of supply and demand for labor and its relation to inventories of labor saving devices. This does not require discarding *modern* economic theory. It does require considerable revamping of Adam Smith's doctrines, but it is incorrect to assume that changes have not already been made. (Roos, 1934*m*)

However Roos retained his most truculent criticism for Means himself, apparently because Means had had the audacity of not only questioning the relevance of neoclassical price theory, but also advancing an explanation for the Depression and plan for restoring business that went far beyond the confidence thesis that he accepted (Lee, 1988).

Although not with the same air of vindictiveness as Roos, other economists also questioned Means' empirical evidence and explanations. Some argued that the quoted prices of the BLS tended to overstate price magnitude rigidity because they did not reflect secret rebates or special discounts, while others argued that his explanation of frequency of price change was incomplete because it did not take into account the product's characteristics or the nature and character of the market in which the product was sold. The overall feeling of these economists has been captured by Willard Thorp (who was one of them) 50 years later:

> I know that I was skeptical of the statistics of that time, believing that actual prices were more flexible than those quoted because of changes in product, discounts, sales assistance, credit extension, etc. I never liked the word "administered" because it implied a fairly free choice whereas the nature of supply and demand, the character of the product, and the market structure all affect the freedom of choice. (Thorp, 1987*t*)

In spite of the criticisms, some economists found the paper quite interesting and suggestive, while other offered constructive suggestions, such that there existed pricing systems other than administrative pricing which also needed to be studied, that the forms of administrative pricing could be discussed only in terms of their peculiar characteristics, and that price magnitude might easily become rigid downward but not upward (Clague, 1934*m*; Whitney, 1934*m*; Thorp, 1934*u*; Homan, 1934*m*; Hamilton, 1934*m*; Stocking, 1934*m*; Means, 1934d*m*; Lee, 1988).

In regard to his discussion on the making of industrial policy, Means received numerous comments concerning the mechanisms he put forth and the intra-industry approach he took towards the problem itself. In spite of his disclaimers, it was evident to many readers that Means favored an administrative committee approach to the making of industrial policy which consisted of various economic groups, including labor and consumers, with the government presiding over the decision-making process to ensure that the groups produced a policy in the public interest. Although not disputing the need for government intervention in matters of the making of industrial policy, some commentators did question the adequacy of the approach, while others were concerned with the manner in which the government representatives were chosen. However, the most prevalent feeling was that a mutually agreeable industrial policy was nearly impossible to devise, short of a government edict, because the economic interests of the various groups were incompatible and economic power was unevenly distributed between them. As for the latter criticism, Frank (1938a*m*) argued that by not recognizing the need for inter-industry co-ordination when dealing with the making of industrial policy, it would not be possible for Means' administrative committees to reach the right key decisions. Hence, instead of making the situation better, the industrial policies promulgated by the committees would make matters worse (DuBrul, 1934b*m*; Whitney, 1934*m*; Harriman, 1934*m*; Roos, 1934*m*; Lee, 1988).

Industrial prices and their relative inflexibility

In the four months following the initial distribution of "NRA and AAA" Means was largely tied up with his work for Wallace and, beginning in November, for the National Resources Board (NRB). In addition, he spent some of his free time speaking on the paper's core ideas at The Brookings Institution and responding to a *New York Times* editorial on AAA production controls. However, he did manage, in October, to revise the paper through adding two additional charts dealing with prices and production for agricultural and consumer and producer goods, and providing a more complete description of the data contained in the charts. Moreover, having agreed to give a paper on price inflexibility and monetary policy to a session jointly sponsored by the Econometric Society and the American Statistical Society at their December meetings, Means decided to base it on his "NRA and AAA" paper. He deleted nearly all the reference to the making of industrial policy, summarized the empirical evidence and the discussion about administered prices, responded to various criticisms made about the paper, added new empirical material on relative price dispersion, made sharper statements as to the relationship between administered prices and concentration, and expanded his thoughts on monetary policy. The resulting paper was titled "Price Inflexibility and the Requirements of a Stabilizing Monetary Policy"[5] (Means, 1934b, 1934d*m*, 1934e*m*, 1935b; Homan, 1934*m*).

Erroneously suspecting that Means' paper was being suppressed, the long-time foe of monopoly and bitter enemy of the NRA Senator Borah of Idaho had the Senate pass a resolution on January 3, 1935, titled "Monopolistic Influence Upon Industrial Prices," demanding that Wallace submit the paper to the Senate. In light of the resolution, Means had virtually no time to revise the paper beyond reorganizing it, including the charts on relative price dispersion from "Price Inflexibility," and better clarifying the concept of administered prices. Missing from this revised version were responses to earlier criticism and the statements on administered prices and concentration found in "Price Inflexibility." Wallace submitted Means' revised paper to the Senate on January 15 under the (nearly) original title "N.R.A., A.A.A., and the Making of Industrial Policy"; however, when published two days later as Senate Document no. 13, it bore the title of *Industrial Prices and Their Relative Inflexibility*, with the original title appearing on the first page (Eichner, 1980; Means, 1935a; and US Congress, 1935).

The publication of *Industrial Prices* occurred with much fanfare and caught the attention of economists and politicians alike. *The New York Times*, *Washington Post*, and *Washington Herald* all noted Borah's resolution and gave a quick summary or flavor of the paper under the headings of "Wallace to Urge Monopoly Curbs," "Monopoly Hit in Borah Move," and "NRA Launches Hearing Today on Price Fixing." At this time, the NRA was holding public hearings on the price

[5] Means presented his paper "Price Inflexibility" at a session on "Monetary Policy and Price Changes During Recovery: A Survey of Relevant Evidence." The session was chaired by Irving Fisher and contained papers by Willford King and Frank Graham. The discussants included George Warren, Harry Gideonse, and Roos. The extent of the audience is unknown, but it did include Rufus Tucker, who later wrote on big business and administered prices (see pp. 70–3 below).

provisions of the codes of fair competition. With CAB's presence at the hearings, combined with the testimony by Bean and Henderson, Means' view on prices received additional publicity. Consequently *Industrial Prices* received much play in the popular press and journals. More importantly, Means received many requests for the document from economists and institutions. By the end of February, over 7,000 copies of *Industrial Prices* had been distributed (Bean, 1935*m*; Hawley, 1966; *The New York Times*, 1935; *Washington Post*, 1935; *Washington Herald*, 1935*m*; Campbell, 1940).

The publication of *Industrial Prices* concluded the first stage in the development of the doctrine of administered prices. After 1935, while working for the National Resources Committee (NRC), Means turned his attention towards developing a theoretical picture of what would constitute a balanced, fully employed economy which was dominated by large corporate enterprises and administered prices. This initially led him to delineate the structure, organization, and co-ordination of economic activity of the American economy. Later in the 1950s–1970s he dealt with pricing and the corporate enterprise and with administrative inflation. Throughout this 40-year period when Means developed his doctrine of administered prices, he continually drew upon his initial analysis of administered prices made between 1930 and 1935 (Lee, 1990a; Lee and Samuels, 1992a).