

P  
ing was very heaven!  
(Wordsworth)

# The Market Process

Essays in Contemporary Austrian Economics

---

George Mason University  
University Libraries

*Edited by*

Peter J. Boettke

*Department of Economics  
New York University, US*

*and*

David L. Prychitko

*Department of Economics  
State University of New York – Oswego, US*

Edward Elgar

## 5. Schumpeter and Kirzner on competition and equilibrium

Don Boudreaux

There is a difference between Kirzner's theory of entrepreneurship and that of Schumpeter. Schumpeter's entrepreneur is a disequilibrating force in the economic system; he initiates economic change. Kirzner's entrepreneur plays an equilibrating role... Unlike Schumpeter's entrepreneur, he is not so much the creator of his own opportunities as a responder to the hitherto unnoticed opportunities that already exist in the market. (Paul J. McNulty, 1987, p. 537)

Israel Kirzner's *Competition and Entrepreneurship* (1973) is often credited as having influenced the resurgence of interest in Austrian economics beginning in the 1970s. This book both advanced the Austrian conception of competition as a rivalrous process and made this idea of dynamic competition more acceptable to non-Austrian economists. And as its title suggests, the entrepreneur is seen as key to the competitive process. Kirzner's concern with entrepreneurship continues a long tradition in the Austrian school that was developed most thoroughly by Joseph Schumpeter. However, as indicated by the above quotation from Professor McNulty, and as Kirzner himself notes, his theory of entrepreneurship differs from Schumpeter's theory. The main difference is that Kirzner sees the entrepreneur as an equilibrating force, whereas Schumpeter views the entrepreneur as a disequilibrating force. But such terminology overstates the differences between Kirzner's theory and Schumpeter's theory. The purpose of this note is to develop a model in which the entrepreneurial activity emphasized by Kirzner is complementary to the entrepreneurial-development process as explained by Schumpeter.

### SCHUMPETER'S THEORY

Paul Samuelson (1976, p. 747) neatly characterizes the entrepreneur-driven innovation process as modeled by Schumpeter: "The violin string is plucked by innovation; without innovation it dies down to stationariness, but then along comes a new innovation to pluck it back into dynamic motion again."

The Schumpeterian entrepreneur is a disequilibrating force in the economic system; he initiates economic change. Kirzner's entrepreneur plays an equilibrating role... Unlike Schumpeter's entrepreneur, he is not so much the creator of his own opportunities as a responder to the hitherto unnoticed opportunities that already exist in the market. (Paul J. McNulty, 1987, p. 537)

the competitive process is a disequilibrating force in the economic system; he initiates economic change. Kirzner's entrepreneur plays an equilibrating role... Unlike Schumpeter's entrepreneur, he is not so much the creator of his own opportunities as a responder to the hitherto unnoticed opportunities that already exist in the market. (Paul J. McNulty, 1987, p. 537)

By working out the logic of price competition only as a result of overlooking or overlooking the outcomes of competition as given an determinate these theories of their model content. Competition being only a result of competition require explicit competition attend. Schumpeter's theory of price

### KIRZNER'S THEORY

Kirzner's theory of competition is a disequilibrating force in the economic system; he initiates economic change. Kirzner's entrepreneur plays an equilibrating role... Unlike Schumpeter's entrepreneur, he is not so much the creator of his own opportunities as a responder to the hitherto unnoticed opportunities that already exist in the market. (Paul J. McNulty, 1987, p. 537)

The Schumpeterian entrepreneur is an innovator plucking the strings and, as a consequence, a disequilibrater. In Schumpeter's theory, innovations – which are the basic stuff of entrepreneurial action – disturb the calmness of equilibrium conditions (Schumpeter, 1934, esp. pp. 128–56).

Schumpeter questioned the relative significance of the type of competition that is the main concern in standard economic theory. This is competition that brings prices into closer alignment with costs. Schumpeter did not deny that, *ceteris paribus*, prices equal to costs are better than prices not equal to costs. Nor did he deny the existence of competitive forces working to keep prices equal to costs. But he insisted that the *ceteris paribus* conditions typically invoked to explain price determination contain what in fact are the most significant features of real-world competition. According to Schumpeter (1942, p. 84), the kind of competition that "counts" is

the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives.

By working with competitive models that are designed to explain only the logic of price determination, and (as a consequence?) by defining competition only as the equilibrating force in price-theoretic models, economists overlook or misinterpret the many other desirable nonprice features and outcomes of real-world competition. The problem with mainstream theories of competition is not that they take product qualities, technology, tastes, etc., as given and fixed in order to sharpen their focus on the forces of price determination. Abstraction is necessary for all theory. The problem with these theories is rather that economists forget that the heuristic assumptions of their models of price competition have neither descriptive nor normative content. Competition works in many dimensions, with the price dimension being only one. As a result, many economic phenomena other than prices require explanation. Accounting for and explaining the several dimensions of competition was for Schumpeter the task to which economic theorists should attend. Schumpeter was critical not so much of the logical consistency of the theory of perfect competition as of its relevance.

### KIRZNER'S THEORY

Kirzner's criticism of neoclassical competition theory is different from Schumpeter's criticism. Whereas Schumpeter questioned the applicability of the theory, Kirzner's contribution is to fill a logical gap in mainstream theory

in which competition is modeled only as a price-determining force, Kirzner's work contributes to a better understanding of the forces of price determination than can be had from the model of perfect (or pure) competition.

The correct intuition behind the theory of perfect competition is that prices are bid down to minimum costs of production by the rivalry of other actual and potential sellers. It is thus a theory of price determination that justifiably abstracts from all phenomena judged to be incidental to the task of explaining the logic of how competitive rivalry keeps prices from remaining higher or lower than costs. But as Kirzner and others note, the equilibrium outcome of the competitive process as modeled by economists came to be defined as competition: the outcome is confused with the process that leads to the outcome. Human action and choices are thus squeezed from the model and, hence, from the economist's notion of price competition. The model does not explain how particular prices actually come to be set in competitive markets.

Central to Kirzner's thesis is the recognition that acting entrepreneurs are indispensable for the changes in prices and the pattern of resource allocation that occur under competitive conditions. Kirzner's emphasis on entrepreneurship as conscious, volitional action is in the tradition of Menger (1881 [1871], 1985 [1883]), Mises (1949), Hayek (1948), and other Austrians who were skeptical of theories in which social phenomena can not be traced back to the choices and actions of individuals. The Mengerian insistence on tracing all social outcomes to their causes at the level of individual actors is now labeled "methodological individualism."<sup>1</sup> Of course, tracing social phenomena back to choices made at the level of the individual does not imply that these phenomena are intended or even understandable by those whose actions produce the phenomena. Austrians generally appreciate the reality of the invisible hand. However, a minimum criterion for a theory's acceptance is that the outcomes explained by the theory be understandable as the result of human action, if not necessarily of human intention.<sup>2</sup>

By this criterion, the standard model of competition, as it developed since the 1930s, is incomplete. Because this theory assumes that everyone is a price taker, the pattern of prices and resource allocation generated by putting the model of perfect competition through its paces is emphatically not the result of human action. Genuine choice – i.e., decision-making opportunities that contain the possibility for individual decision-makers to have something more than a negligible effect on market outcomes – is thus excluded from the mainstream economists' theory of competition.

The result of this method of theorizing is that the central phenomenon to be explained by price theory, price, cannot be traced back to human action in standard models of competition. No one ever has control over price as long as markets are "competitive." Prices instead are set wholly by the impersonal forces of supply and demand with no human intervention actu-

ally to carry out (1959) demonstrate prices in response to competition as determined by perfect competition. Competitive prices make its contribution.

Kirzner's acceptance of the theory of competition as a means of explaining the thrust of his work about the prices – which is spread across the market – accomplishes what an auctioneer not a market is that which is given supplies a

Kirzner's theory of competition in a world of actions. Instead of being set by the imperfections of the auctioneer, consistent with every market, a

The substance of making the theoretical individualism of economists to a monopolistic (flesh-and-blood) theory of competition and monopoly price takers are unhelpful notions defined as monopolies, cautions in which cutting, advertising through the lens inconsistent with



ning force, Kirzner's  
s of price determina-  
competition.

petition is that prices  
valry of other actual  
ation that justifiably  
ne task of explaining  
remaining higher or  
ilibrium outcome of  
ne to be defined as  
s that leads to the  
rom the model and,  
The model does not  
ompetitive markets.  
g entrepreneurs are  
resource allocation  
is on entrepreneur-  
nger (1981 [1871]).  
Austrians who were  
traced back to the  
ence on tracing all  
tors is now labeled  
l phenomena back  
t imply that these  
se whose actions  
the reality of the  
ry's acceptance is  
ole as the result of

it developed since  
hat everyone is a  
erated by putting  
phatically not the  
ing opportunities  
o have something  
xcluded from the

l phenomenon to  
to human action  
rol over price as  
t wholly by the  
ntervention actu-

ally to carry out the task of price setting in individual markets. As Arrow (1959) demonstrated, to give someone in the model the power to change prices in response to excess demand or supply is simultaneously to abandon competition as defined in the model. Arrow concluded that the existence of perfect competition implies equilibrium. It is at this point in the theory of competitive price determination that Kirzner's work on entrepreneurship makes its contribution.

Kirzner accepts the task of mainstream competition theory (i.e., the explanation of prices and output levels in different industries), but he reformulates the theory of competitive price determination to incorporate a plausible explanation of how prices are actually set. Although Kirzner recognizes that the tasks of competition in reality go far beyond keeping prices equal to costs, the thrust of his theory is to resurrect the role of human action in bringing about the prices that equate supply and demand. Kirznerian entrepreneurship – which is spread throughout the economy at the level of the acting person – accomplishes what the Walrasian auctioneer would accomplish were the auctioneer not a fiction. The aspect of entrepreneurship emphasized by Kirzner is that which is responsible for actually setting equilibrium prices so that given supplies and demands are equilibrated with each other.

Kirzner's theory of entrepreneurship thus explains competitive price determination in a way that allows outcomes to be traceable to individual human actions. Instead of avoiding the problem by merely asserting that prices are set by the impersonal forces of demand and supply, or instead of relying upon the auctioneer as Walras did, Kirzner's theory of price determination is consistent with methodological individualism: All prices, at each moment in every market, are the result of entrepreneurial action.

The substance of Kirzner's reformulation of price theory goes beyond making the theory consistent with the Austrian requirement of methodological individualism. An additional benefit of Kirzner's work is that it allows economists to escape the trap of having to label all real-world exchanges as monopolistic (see, e.g., Arrow 1959) simply because actual prices are set by flesh-and-blood people. By putting human decision making back into the theory of competitive price determination, the distinction between competitors and monopolists is no longer synonymous with the distinction between price takers and price makers. Kirzner's version of price theory avoids the unhelpful notion of competition in which all pricing decisions by sellers are defined as monopolistic. The search for, and the identification of, real-world monopolies can then proceed along lines that are less likely to lead to conclusions in which activities that are vital for competition in reality (e.g., price cutting, advertising, product differentiation) are perceived as monopolistic through the lens of standard price theory simply because these activities are inconsistent with price-taking behavior.<sup>3</sup>

Kirzner's theory goes a long way toward showing that price-setting by flesh-and-blood people does not imply that monopoly power infects markets. Nor does this notion of competition imply that entrepreneurs are free to set whatever prices they like. The decisions of what prices to set are constrained by the willingness of consumers to buy outputs and the willingness of input owners to sell the services of their factors. Monopoly power exists when an entrepreneur (or group of entrepreneurs) are artificially shielded from the would-be constraining forces generated by the actions of other entrepreneurs. It follows that no sensible general rule can be devised that enables economists or the courts to distinguish between "competitors" and "monopolists" solely by measuring elasticities of demands of different producers.<sup>4</sup>

Although the definition of an artificial barrier to the forces of competition is difficult to formulate (and unnecessary for purposes of this paper), under no conceivable set of circumstances will *any* real-world markets operate with prices that are not selected by someone. That someone is the Kirznerian entrepreneur, and the insight that human action is a necessary element in any theory of price determination is Kirzner's main contribution to the economic theory of competition.

### EQUILIBRIUM OR DISEQUILIBRIUM?

The above discussion suggests that the common practice of labeling Schumpeter's entrepreneur as a "disequilibrating" and Kirzner's entrepreneur as an "equilibrating" is unhelpful. Kirzner himself adopts this practice by noting that

there is one important respect – if only in emphasis – in which Schumpeter's entrepreneur differs from my own. Schumpeter's entrepreneur acts to *disturb* an existing equilibrium situation. Entrepreneurial activity *disrupts* the continuing circular flow. The entrepreneur is pictured as *initiating* change and as generating *new* opportunities. Although each burst of entrepreneurial innovation leads eventually to a new equilibrium situation, the entrepreneur is presented as a *disequilibrating* rather than an equilibrating force. ... By contrast my own treatment of the entrepreneur emphasizes the equilibrating aspect of his role. (1973, pp. 72–3; emphasis in original)<sup>5</sup>

Schumpeter modeled the entrepreneur as a force that disrupts an equilibrium pattern of resource allocation by introducing new products, production techniques, etc., while Kirzner is emphatic that his entrepreneur is an equilibrating force. But this distinction is of little help for distinguishing between the essential properties of Schumpeter's notion of entrepreneurship and that of Kirzner. The important question here is what is meant by equilibrium. In

contrast to their s  
Schumpeter and K  
of equilibrium.

Schumpeter and  
equilibrium as a s  
demands implied  
availabilities. Wh  
the givens, Kirzne  
rium prices given  
of the entrepreneu  
which face him b  
emphasis in orig  
disequilibrating (b  
Kirzner sees it as  
process, however,  
avoiding sterile  
disequilibrates. A  
of equilibrium. U  
the fact that chan  
Kirzner's and Sc  
context.

Figure 5.1 is us  
and for broadeni  
axis measures the  
measures the qua  
dimension – e.g.  
unrealistic, the p  
is multidimensio

Obviously, the  
consumers are w  
hypothetical indi  
jective evaluatio  
curves are labele  
levels of consum

Of course, pro  
quality is not fre  
firms must rece  
produce higher-c  
to be constant, l  
faced by product

Each of these  
which a firm's

contrast to their skepticism of the neoclassical theory of competition both Schumpeter and Kirzner too willingly accept the standard neoclassical notion of equilibrium.

Schumpeter and Kirzner both follow standard practice by defining market equilibrium as a situation in which relative prices equate the supplies and demands implied in the *given array of tastes, technology, and resource availabilities*. Whereas Schumpeter highlighted those activities that *change the givens*, Kirzner's focus is on the activities that *actually establish equilibrium prices given the particular givens*. As Kirzner says, "For me the function of the entrepreneur consists not of *shifting* the curves of cost or of revenues which face him but of *noticing that they have in fact shifted*" (1973, p. 81; emphasis in original). That is why Schumpeter saw entrepreneurship as disequilibrating (because the Schumpeter entrepreneur shifts the curves) while Kirzner sees it as equilibrating. A broader concept of the competitive market process, however, allows recognition of both functions of entrepreneurs while avoiding sterile debates on whether the entrepreneur *equilibrates or disequilibrates*. A broader concept of competition implies a broader concept of equilibrium. Use of such a concept allows the theorist to take into account the fact that changes in variables other than price can be equilibrating. Both Kirzner's and Schumpeter's entrepreneur are equilibrating in this broader context.

Figure 5.1 is useful for comparing Kirzner's entrepreneur with Schumpeter's and for broadening the concept of competitive equilibrium. The horizontal axis measures the money price of some particular good while the vertical axis measures the quality of the good. For simplicity, I reduce quality to a single dimension — e.g., expected life of the product. Although this assumption is unrealistic, the point being made applies to real-world cases in which quality is multidimensional.

Obviously, the higher the quality of the good the higher is the price that consumers are willing to pay for the good. We can thus draw in a family of hypothetical indifference curves showing some aggregate of consumers' subjective evaluation of the tradeoff of lower prices for higher quality. These curves are labeled "I." Indifference curves further to the left represent higher levels of consumer satisfaction.<sup>6</sup>

Of course, producers face a tradeoff between price and quality also. Because quality is not free, higher levels of quality are more costly to provide and, thus, firms must receive a greater amount of revenue from sales if they are to produce higher-quality goods and services. If we assume quantity sold per firm to be constant, higher prices are necessary for larger revenue. The tradeoffs faced by producers are represented by the isoprofit curves labeled " $\pi$ ."

Each of these curves shows different combinations of price and quality for which a firm's level of profits is unchanged. Isoprofit curves further to the



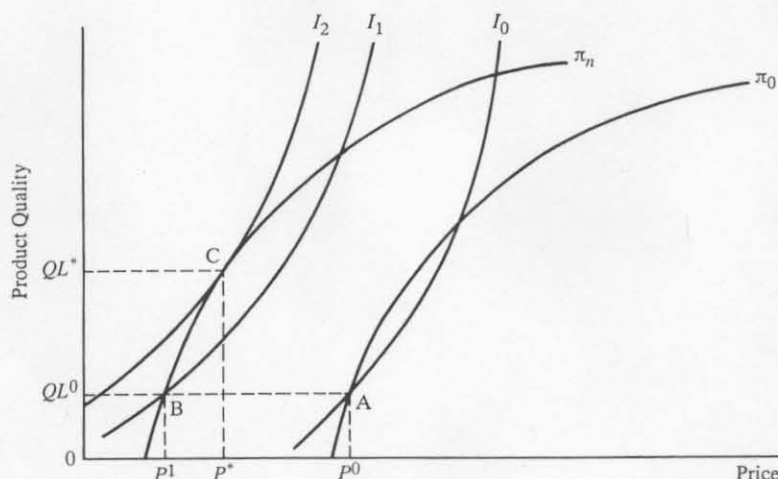


Figure 5.1

right represent higher levels of profits.<sup>7</sup> The curve labeled " $\pi_n$ " is the normal-profit curve. Production at any point to the left of  $\pi_n$  will not take place because, at these points, firms do not cover their full costs; production at any point to the right of  $\pi_n$  yields above-normal profits which attract other competitors into the field.

Assume for now that the quality of the good is  $QL^0$ , and that the price of the good is  $P^0$ . This price-quality combination is shown as point A. Producers are earning above-normal profits (of  $\pi_0$ ) while consumers receive an amount of satisfaction represented by  $I_0$ . Clearly, if product quality is fixed at  $QL^0$ , the only available task for competition is to force price down from  $P^0$  to  $P^1$ . Consumers benefit from the price reduction because at point B consumers are on an indifference curve  $I_1$  that represents a higher level of satisfaction than  $I_0$ . The long-run equilibrium price can fall no lower than  $P^1$  as long as product quality is fixed at  $QL^0$ . Given  $QL^0$ ,  $P^1$  is the equilibrium price which equates supply and demand.

But notice that there are many combinations of price and quality that afford consumers even more satisfaction than they receive at point B and that allow firms to earn enough profit to remain in business in the long run. Indeed, in the hypothetical case portrayed in Figure 5.1, product quality of  $QL^*$  in combination with price  $P^*$  represents the maximum possible consumer satisfaction obtainable in this market. The price-quality combination of  $P^*$ ,

$QL^*$  is on  $I_2$ , obtainable in the price simply by quality  $QL^0$  is possible and a nonprice dimension competitive equilibrium

As shown in but which never to have "room long as disequilibrium prices market equilibrium given. Put into the competition longer a reason given demand tions themselves

Both Schumpeter's situation in which, every point stood that more prevalent and because his concept of nonprice variation disequilibrium in the price of implicitly demands, which quality as disequilibrium below-normal Schumpeter's vertical direction ensures reducing price of both of the label the action the other enter competition is more desirable price quality combination and show



$QL^*$  is on  $I_2$ , which is the highest possible level of consumer satisfaction obtainable in this market. To insist that price  $P^1$  is the optimal or equilibrium price simply because it is the lowest possible price given the level of product quality  $QL^0$  is to ignore the fact that improvements in product quality are possible and desirable. To ignore the possibility of improvements in the nonprice dimensions of outputs implies an overly restricted definition of competitive equilibrium.

As shown in Figure 5.1, there are many prices that yield just-normal profits but which nevertheless leave room for welfare improvements. For a market to have "room for improvement" is for a market to be in disequilibrium. As long as disequilibrium persists, competition still has tasks to perform. Equilibrium prices, then, as conventionally defined, do not necessarily imply market equilibrium in this broader context in which product qualities are not given. Put another way, when changes in product quality are incorporated into the competitive model as an equal with price adjustments, there is no longer a reason to refer to any price that happens to equate given supply and given demand as an equilibrium price because the supply and demand functions themselves may not be in their equilibrium positions.

Both Schumpeter and Kirzner accept the definition of equilibrium as a situation in which prices equate given supplies and demands. By this reasoning, every point along  $\pi_n$  is an equilibrium point. Because Schumpeter understood that movements in the nonprice ("quality") dimension are at least as prevalent and as socially valuable as movements in the price dimension, and because his entrepreneur is the driving force that causes these changes in nonprice variables, Schumpeter's emphasis was on entrepreneurship as a disequilibrating force. Kirzner, in contrast, chose to explain only movements in the price dimension. Because both theorists follow common practice by implicitly defining equilibrium as the equality of given supplies and demands, which is established by prices, they both regard changes in product quality as disequilibrating and changes in prices that eliminate above- or below-normal profits as equilibrating. In terms of Figure 5.1, the task of Schumpeter's entrepreneur is to initiate "disequilibrating" changes in the vertical direction (i.e., improve product quality), while Kirzner's entrepreneur ensures the "equilibrating" movements in the horizontal direction (i.e., reducing prices to the level of normal profits). Clearly, though, the activities of both of these entrepreneurs are an important part of the market process. To label the activities of one entrepreneur "equilibrating" while the activities of the other entrepreneur are labeled "disequilibrating" is arbitrary at best. Competition is more correctly modeled as a force that moves the market from less desirable price-quality combinations (point B) to more desirable price-quality combinations (point C). Any movement toward point C is equilibrating and should be recognized as such.<sup>8</sup>

 $\pi_0$ 

Price

" $\pi_n$ " is the normal-  
will not take place  
; production at any  
attract other com-

nd that the price of  
point A. Producers  
receive an amount  
is fixed at  $QL^0$ , the  
wn from  $P^0$  to  $P^1$ .  
nt B consumers are  
of satisfaction than  
an  $P^1$  as long as  
brium price which

e and quality that  
at point B and that  
s in the long run.  
product quality of  
possible consumer  
ombination of  $P^*$ ,

## CONCLUSION

Economists attempting to explain the forces and results of competition can profit from a broadened concept of equilibrium. This broadened concept (and models built upon it) should include quality adjustments and technological and organizational improvements in addition to price adjustments. That is, such a broadened concept would focus on nonprice variables in addition to the price variable. Competition, and the equilibria it gives rise to, can then be modeled not simply as the consequence of the pricing behavior of sellers, but rather as the consequence of price and nonprice decisions of market participants. Both Schumpeter's and Kirzner's entrepreneurs act as an equilibrating force in this broader sense.

## NOTES

The author thanks Pete Boettke, James Buchanan, Roger Garrison, Randy Holcombe, Steve Horwitz, Israel Kirzner, and E.C. Pasour for helpful comments.

1. White (1985) provides a clear discussion of this methodological principle.
2. See Hayek (1967).
3. See, e.g. Cowling and Mueller (1978, 1981). In attempting to measure the welfare loss caused by real-world monopoly power, these authors include, as a social cost of monopoly power, all costs incurred by firms in reality that would not be incurred under conditions of pure competition. Among such costs explicitly mentioned by Cowling and Mueller are advertising and research and development expenditures.
4. In addition to the writings of some Austrians, other economists such as Fisher (1979), Demsetz (1982), Benson (1984), and DiLorenzo (1984) have made important contributions to reformulating the concept of monopoly as market power that exists when market participants are artificially or arbitrarily shielded from the competition of other entrepreneurs and firms.
5. See also Kirzner, 1973, pp. 125-31; and 1979, pp. 111-19.
6. The convexity of the indifference curves with respect to the horizontal axis results from the law of diminishing marginal utility. Higher product quality, *ceteris paribus*, is worth less to consumers the greater the amount of product quality they already have. Thus, consumer indifference requires price increases to be smaller and smaller as product quality is higher and higher.
7. The concavity of the isoprofit curves results from the plausible assumption of increasing cost of quality provision.
8. Of course, if product quality is higher than  $QL^*$ , the entrepreneur improves matters by lowering the quality of the product and offering it to consumers at a reduced price.

## REFERENCES

- Arrow, Kenneth J. (1959), "Toward a Theory of Price Adjustment," in Moses Abramovitz (ed.), *The Allocation of Economic Resources*, Stanford, CA: Stanford University Press.

- Benson, Bruce L. (1984), "F  
ern *Economic Journal*, 51  
Cowling, Keith, and Muelle  
*Economic Journal*, 88, D  
— (1981), "The Social C  
91, September, 721-5.  
Demsetz, Harold (1982), "B  
47-57.  
DiLorenzo, Thomas J. (198  
Public Choice?," *Internat  
Fisher, Franklin M. (1979),  
and *Business*, 19, Summe  
Hayek, Friedrich A. (1948),  
of Chicago Press.  
— (1967), "The Results  
Hayek, *Studies in Philo  
Kegan Paul, pp. 96-195.  
Kirzner, Israel M. (1973), C  
Chicago Press.  
— (1979), *Perception*, C  
Press.  
McNulty, Paul J. (1987),  
Murray Milgate, and Pe  
*Economics*, vol. 1, Lond  
Menger, Carl (1981 [1871  
York: New York Univers  
— (1985 [1883]), *Inves  
Special Reference to Ec  
University Press.  
Mises, Ludwig von (1949),  
Samuelson, Paul A. (1976)  
Schumpeter, Joseph A. (19  
Opie, Cambridge, MA: F  
— (1942), *Capitalism, S  
White, Lawrence H. (1985****

- Benson, Bruce L. (1984), "Rent Seeking from a Property Rights Perspective," *Southern Economic Journal*, 51, October, 388-400.
- Cowling, Keith, and Mueller, Dennis (1978), "The Social Costs of Monopoly Power," *Economic Journal*, 88, December, 727-48.
- (1981), "The Social Costs of Monopoly Power Revisited," *Economic Journal*, 91, September, 721-5.
- Demsetz, Harold (1982), "Barriers to Entry," *American Economic Review*, 72, March, 47-57.
- DiLorenzo, Thomas J. (1984), "The Domain of Rent-Seeking Behavior: Private or Public Choice?," *International Review of Law and Economics*, 4, 185-97.
- Fisher, Franklin M. (1979), "Diagnosing Monopoly," *Quarterly Review of Economics and Business*, 19, Summer, 7-33.
- Hayek, Friedrich A. (1948), *Individualism and Economic Order*, Chicago: University of Chicago Press.
- (1967), "The Results of Human Actions but not of Human Design," in F.A. Hayek, *Studies in Philosophy Politics, and Economics*, London: Routledge & Kegan Paul, pp. 96-195.
- Kirzner, Israel M. (1973), *Competition and Entrepreneurship*, Chicago: University of Chicago Press.
- (1979), *Perception, Opportunity, and Profit*, Chicago: University of Chicago Press.
- McNulty, Paul J. (1987), "Competition: Austrian Conceptions," in John Eatwell, Murray Milgate, and Peter Newman (eds), *The New Palgrave: A Dictionary of Economics*, vol. 1, London: Macmillan, pp. 536-7.
- Menger, Carl (1981 [1871]), *Principles of Economics*, trans. Bert Hoselitz, New York: New York University Press.
- (1985 [1883]), *Investigations into the Method of the Social Sciences with Special Reference to Economics*, trans. Francis J. Nock, New York: New York University Press.
- Mises, Ludwig von (1949), *Human Action*, New Haven: Yale University Press.
- Samuelson, Paul A. (1976), *Economics*, New York: McGraw-Hill, 10th edn.
- Schumpeter, Joseph A. (1934), *The Theory of Economic Development*, trans. Redvers Opie, Cambridge, MA: Harvard University Press.
- (1942), *Capitalism, Socialism, and Democracy*, New York: Harper & Bros.
- White, Lawrence H. (1985), "Introduction," in Menger, 1985.

ress

its of competition can  
oadened concept (and  
nts and technological  
adjustments. That is,  
riables in addition to  
res rise to, can then be  
ehavior of sellers, but  
ons of market partici-  
act as an equilibrating

, Randy Holcombe, Steve

principle.

measure the welfare loss  
a social cost of monopoly  
urred under conditions of  
Cowling and Mueller are

ts such as Fisher (1979),  
le important contributions  
xists when market partici-  
of other entrepreneurs and

ontal axis results from the  
s paribus, is worth less to  
ly have. Thus, consumer  
product quality is higher

assumption of increasing

our improves matters by  
a reduced price.

ljustment," in Moses  
tanford, CA: Stanford