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JOSEPH SCHUMPETER ON COMPETITION

*Thomas K. McCraw**

ABSTRACT:
The following documents illustrate the relevance of Schumpeter's thought to competition policy. Part I is an introduction to Schumpeter's ideas; Part II a series of excerpts from his book, Capitalism, Socialism and Democracy;[1] *Part III a 1951 critique of his stance toward antitrust by the economist Edward S. Mason; and Part IV an evaluation of the current use of Schumpeter's theories in discussions of competition policy.*

I. INTRODUCTION

During the 1980s, there began a spirited revival of interest in the writings of Joseph Schumpeter (1883-1950), spurred by renewed attention to his seminal works on entrepreneurship and innovation. The movement gathered so much strength that citations to Schumpeter by scholars and journalists began to exceed those to Keynes, a phenomenon that would have seemed unthinkable only a few years earlier. In 2000, *Business Week* ran a two-page spread titled "America's Hottest Economist Died 50 Years Ago."[2]

This upsurge of interest has migrated to numerous areas of inquiry, including competition policy. Three pertinent articles among many that might be cited are Schmalensee's "Antitrust in Schumpeterian Industries",[3] Katz and Shelanski's " 'Schumpeterian' "

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1 Joseph A. Schumpeter, Capitalism, Socialism and Democracy, (1st edition 1942) [hereinafter Capitalism].

2 Charles J. Whalen, *America's Hottest Economist Died 50 Years Ago*, Bus. Wk. (Dec. 11, 2000).

3 Richard Schmalensee, *Antitrust in Schumpeterian Industries*, 90 Am. Econ. Rev. 192-196 (2000).

Competition and Antitrust Policy in High-Tech Markets”,[4] and Baker’s “Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation”.[5]

Taken as a whole, Schumpeter’s writings fall into the tradition of grand social theory exemplified by European thinkers such as August Comte, Karl Marx, John Stuart Mill, and Max Weber

This sudden attention to Schumpeter’s work by antitrust scholars is a bit surprising, because very little of his vast body of writing even purports to address antitrust directly. In all, he published eleven books and scores of articles and reviews—a staggering total of about 3.5 million words. But the word “antitrust” appears almost nowhere.

A reading of Schumpeter’s work in its entirety makes it clear that he disavowed advocacy of any kind. He opposed the development of “schools” of economic thought, even though he had tremendous respect for the achievements of great scholars across the ideological spectrum, from his fellow Austrians Mises and Hayek on the far Right to Marx on the far Left. Schumpeter believed economics to be a science, and he conceived the task of scientists as the quest for truth, not the service of policy. He was convinced that direct pursuit of the second goal would inevitably corrupt the first. So, if one searches his work for explicit guides to antitrust policy, one may find, as Gertrude Stein said of the city of Oakland, that “There is no there there.”

This is probably why Schumpeter’s writings were neglected for so long by antitrust scholars and policymakers. He makes no appearance, for example, in Bork’s *The Antitrust Paradox*.[6] Nor is his name prominent in most other antitrust treaties and texts that appeared either before or after Bork’s book. There is no explicit there there.

Taken as a whole, Schumpeter’s writings fall into the tradition of grand social theory exemplified by European thinkers such as August Comte, Karl Marx, John Stuart Mill, and Max Weber. Although he spent his academic career as a professor of economics—teaching at two universities in Austria and one in Germany before moving permanently to Harvard in 1932—his work freely crosses disciplinary lines. In addition to economics, it encompasses sociology, psychology, law, business, and some mathematics.[7]

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[4] Michael L. Katz & Howard A. Shelanski, *“Schumpeterian” Competition and Antitrust Policy in High-Tech Markets*, 14 Competition 47 (2005).

[5] Jonathan B. Baker, *Beyond Schumpeter vs. Arrow: How Antitrust Fosters Innovation*, 74 Antitrust L.J. 575-602 (2007).

[6] Robert Bork, The Antitrust Paradox: A Policy at War with Itself (1978).

[7] He had little talent for advanced math, but he thought it vitally important: along with Irving Fisher and Ragnar Frisch, he founded the Econometric Society, and he wrote the lead article for the first issue of *Econometrica*.

He was a leader not only in the study of entrepreneurship, but also in his emphasis on credit creation, business strategy, and—above all—innovation

Among all the sister disciplines of economics, Schumpeter most prized history. Concerning what he regarded as the three basic building blocks of economics—theory, statistics, and history—he wrote that the last "is by far the most important." In his final book, he issued this remarkable credo:

> "I wish to state right now that if, starting my work in economics afresh, I were told that I could study only one of the three but could have my choice, it would be economic history that I should choose. And this on three grounds. First, the subject matter of economics is essentially a unique process in historic time. Nobody can hope to understand the economic phenomena of any, including the present, epoch who has not an adequate command of historical facts and an adequate amount of historical sense or of what may be described as historical experience. Second, the historical report cannot be purely economic but must inevitably reflect also "institutional" facts that are not purely economic: therefore it affords the best method for understanding how economic and non-economic facts are related to one another and how the various social sciences should be related to one another. Third, it is, I believe, the fact that most of the fundamental errors currently committed in economic analysis are due to lack of historical experience more often than to any other shortcoming of the economist's equipment."[8]

Schumpeter came to this conclusion reluctantly. For almost his entire life he regarded himself primarily as a theorist, and he achieved some unique successes. His book *The Theory of Economic Development*[9] is one of the classic economic texts of the twentieth century. It remains to this day the best argument for the addition of entrepreneurship as a fourth factor of production along with land, labor, and capital. He was a leader not only in the study of entrepreneurship, but also in his emphasis on credit creation, business strategy, and—above all—innovation.

It was during the 1930s, some 25 years after his first important publications, that Schumpeter began fully to appreciate the importance of history. His 1,095-page *Business Cycles*[10] is as much a work of history as of theory; and his history (which highlights innovation and covers the entire capitalist epoch in Britain, Germany, and the United States), coheres far better than his theory. The latter is spoiled by a heroic but futile attempt to fit patterns of booms and busts

[8] Joseph Schumpeter, History of Economic Analysis, 12-13 (1954).

[9] Joseph Schumpeter, The Theory of Economic Development (1911, Eng. Translation 1934)

[10] Joseph Schumpeter, Business Cycles: A Theoretical, Historical, and Statistical Analysis of the Capitalist Process (1939) [hereinafter Cycles].

into determinate periods defined by other theorists: Joseph Kitchin (40 month cycles), Clément Juglar (8-10 year) and Nikolai Kondratieff (50-60 year).

But even in this book, written during the Great Depression, Schumpeter explicitly disavows advocacy and offers no solution to the economic crisis. "I recommend no policy and propose no plan," he writes in the preface; his book can "be used to derive practical conclusions of the most conservative or the most radical complexion." *Business Cycles* was an exercise in value-neutral science, and in this respect it typified nearly all of Schumpeter's writings. Some 33 years earlier, in the preface to his very first book, he had written something quite similar: "I hold aloof from practical politics and recognize no purpose other than knowledge."[11]

Among its many virtues, Capitalism, Socialism and Democracy *contains one of the best explications of capitalism ever written*

The subtitle of *Business Cycles*—"A Theoretical, Historical, and Statistical Analysis of the Capitalist Process"—well expresses the extraordinary reach of what Schumpeter was trying to do in 1939. Although the book failed as the magnum opus he was hoping for, the immense amount of empirical research on specific firms and industries that went into it prepared him, as nothing else could have done, to write his most famous work, *Capitalism, Socialism and Democracy*. The book appeared only three years after Business Cycles and is one of the seminal nonfiction works of the last hundred years, in any field. For competition policy, it is the most relevant of all his works, but, again, it offers no explicit formulas.

Although very much a book of its time—Schumpeter wrote it in 30 months during 1939-1942, against the uniquely atypical backdrop of the Great Depression and World War II—it is also a book for the ages. Among its many virtues, *Capitalism, Socialism and Democracy* contains one of the best explications of capitalism ever written. The book's most quoted phrase, "creative destruction," is perhaps second only to Adam Smith's "invisible hand" as the best-known metaphor in all of economics, a discipline rich in metaphors.

II. PASSAGES FROM CAPITALISM, SOCIALISM AND DEMOCRACY

The analysis in *Capitalism, Socialism and Democracy* is profound, and it provides at least some implicit guides to competition policy—though one must be extremely careful in applying anything Schumpeter says to a particular case or controversy. In parts of the book, he may appear to prefer large firms to small ones, but this is not what he believed, as his many

[11] *Id.* at vi. *Also* Joseph Schumpeter, Das Wesen und der Hauptinhalt von Theoretichen Nationalökonomie (The Nature and Content of Theoretical Economics) (1908) i-vi (Erich Schneider trans.).

other writings clearly show. His litmus test for competition policy, and almost any other policy, has little to do directly with firm size or industry structure, and everything to do with innovation. This is clear in *The Theory of Economic Development* and equally so in *Business Cycles*, where he writes repeatedly of "New Men" founding "New Firms" and thereby forcing "Innovation" (he capitalizes all three terms). The problem in specific cases involving public policy—as the mixed record of antitrust shows so clearly—is in making such a judgment *about the future* with much accuracy.

In *Capitalism, Socialism and Democracy*, Schumpeter felt it necessary to explain the workings of big business because when he began writing the book during the late 1930s, large firms were under very severe attack. They stood in lower popular repute than at any other time in American history. Hence the candid tone and very strong language in the following excerpts from the book, which contain the heart of Schumpeter's analysis of capitalism (footnotes are quoted as cited):

> "If we look more closely at the conditions (. . .) that must be fulfilled in order to produce perfect competition, we realize immediately that outside of agricultural mass production there cannot be many instances of it. (. . .) every grocer, every filling station, every manufacturer of gloves or shaving cream or handsaws has a small and precarious market of his own, which he tries—must try—to build up and to keep by price strategy, quality strategy—"product differentiation"—and advertising. Thus we get a completely different pattern which there seems to be no reason to expect to yield the results of perfect competition and which fits much better into the monopolistic schema. In these cases we speak of Monopolistic Competition. Their theory has been one of the major contributions to postwar economics.[12] (. . .)
>
> As soon as the prevalence of monopolistic competition or of oligopoly or of combinations of the two is recognized, many of the propositions which the Marshall-Wicksell generation of economists used to teach with the utmost confidence become either inapplicable or much more difficult to prove. This holds true, in the first place, of the propositions turning on the fundamental concept of equilibrium, i.e. a determinate state of the economic organism, toward which any given state of it is always gravitating and which displays certain simple properties. In the general case of oligopoly there is in fact no

[12] See, in particular, E.S. Chamberlin, Theory of Monopolistic Competition (1933), and Joan Robinson, The Economics of Imperfect Competition (1933).

determinate equilibrium at all and the possibility presents itself that there may be an endless sequence of moves and countermoves, an indefinite state of warfare between firms. (. . .)

The theories of monopolistic and oligopolistic competition and their popular variants may in two ways be made to serve the view that capitalist reality is unfavorable to maximum performance in production. One may hold that it always has been so and that all along output has been expanding in spite of the secular sabotage perpetrated by the managing bourgeoisie. Advocates of this proposition would have to produce evidence to the effect that the observed rate of increase can be accounted for by a sequence of favorable circumstances unconnected with the mechanism of private enterprise and strong enough to overcome the latter's resistance However, those who espouse this variant at least avoid the trouble about historical fact that the advocates of the alternative proposition have to face. This avers that capitalist reality once tended to favor maximum productive performance, or at all events productive performance so considerable as to constitute a major element in any serious appraisal of the system; but that the later spread of monopolist structures, killing competition, has by now reversed that tendency.

First, this involves the creation of an entirely imaginary golden age of perfect competition that at some time somehow metamorphosed itself into the monopolistic age, whereas it is quite clear that perfect competition has at no time been more of a reality than it is at present. Secondly, it is necessary to point out that the rate of increase in output did not decrease from the nineties from which, I suppose, the prevalence of the largest-size concerns, at least in manufacturing industry, would have to be dated; that there is nothing in the behavior of the time series of total output to suggest a "break in trend"; and, most important of all, that the modern standard of life of the masses evolved during the period of relatively unfettered "big business." If we list the items that enter the modern workman's budget and from 1899 on observe the course of their prices not in terms of money but in terms of the hours of labor that will buy them—i.e., each year's money prices divided by each year's hourly wage rates—we cannot fail to be struck by the rate of the advance which, considering the spectacular improvement in qualities, seems to have been greater and not smaller than it ever was before. If we economists were given less to wishful thinking and more

The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process

to the observation of facts, doubts would immediately arise as to the realistic virtues of a theory that would have led us to expect a very different result. Nor is this all. As soon as we go into details and inquire into the individual items in which progress was most conspicuous, the trail leads not to the doors of those firms that work under conditions of comparatively free competition but precisely to the doors of the large concerns—which, as in the case of agricultural machinery, also account for much of the progress in the competitive sector—and a shocking suspicion dawns upon us that big business may have had more to do with creating that standard of life than with keeping it down.

The conclusions alluded to at the end of the preceding chapter are in fact almost completely false. Yet they follow from observations and theorems that are almost completely[13] true. Both economists and popular writers have once more run away with some fragments of reality they happened to grasp. These fragments themselves were mostly seen correctly. Their formal properties were mostly developed correctly. But no conclusions about capitalist reality as a whole follow from such fragmentary analyses. If we draw them nevertheless, we can be right only by accident. That has been done. And the lucky accident did not happen.

The essential point to grasp is that in dealing with capitalism we are dealing with an evolutionary process. It may seem strange that anyone can fail to see so obvious a fact which moreover was long ago emphasized by Karl Marx. Yet that fragmentary analysis which yields the bulk of our propositions about the functioning of modern capitalism persistently neglects it. Let us restate the point and see how it bears upon our problem.

[13] As a matter of fact, these observations and theorems are not completely satisfactory. The usual expositions of the doctrine of imperfect competition fail in particular to give due attention to the many and important cases in which, even as a matter of static theory, imperfect competition approximates the results of perfect competition. There are other cases in which it does not do this, but offers compensations which, while not entering any output index, yet contribute to what the output index is in the last resort intended to measure—the cases in which a firm defends its market by establishing a name for quality and service for instance. However, in order to simplify matters, we will not take issue with that doctrine on its own ground.

Capitalism, then, is by nature a form or method of economic change and not only never is but never can be stationary. And this evolutionary character of the capitalist process is not merely due to the fact that economic life goes on in a social and natural environment which changes and by its change alters the data of economic action; this fact is important and these changes (wars, revolutions and so on) often condition industrial change, but they are not its prime movers. Nor is this evolutionary character due to a quasi-automatic increase in population and capital or to the vagaries of monetary systems of which exactly the same thing holds true. The fundamental impulse that sets and keeps the capitalist engine in motion comes from the new consumers' goods, the new methods of production or transportation, the new markets, the new forms of industrial organization that capitalist enterprise creates.

This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in

As we have seen in the preceding chapter, the contents of the laborer's budget, say from 1760 to 1940, did not simply grow on unchanging lines but they underwent a process of qualitative change. Similarly, the history of the productive apparatus of a typical farm, from the beginnings of the rationalization of crop rotation, plowing and fattening to the mechanized thing of today—linking up with elevators and railroads—is a history of revolutions. (. . .) of industrial mutation—if I may use that biological term—that incessantly revolutionizes[14] the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one. This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in. This fact bears upon our problem in two ways.

First, since we are dealing with a process whose every element takes considerable time in revealing its true features and ultimate effects, there is no point in appraising the performance of that process *ex visu* of a given point of time; we must judge

[14] Those revolutions are not strictly incessant; they occur in discrete rushes which are separated from each other by spans of comparative quiet. The process as a whole works incessantly however, in the sense that there always is either revolution or absorption of the results of revolution, both together forming what are known as business cycles.

its performance over time, as it unfolds through decades or centuries. A system—any system, economic or other—that at *every* given point of time fully utilizes its possibilities to the best advantage may yet in the long run be inferior to a system that does so at *no* given point of time, because the latter's failure to do so may be a condition for the level or speed of long-run performance.

Second, since we are dealing with an organic process, analysis of what happens in any particular part of it—say, in an individual concern or industry—may indeed clarify details of mechanism but is inconclusive beyond that. Every piece of business strategy acquires its true significance only against the background of that process and within the situation created by it. It must be seen in its role in the perennial gale of creative destruction; it cannot be understood irrespective of it or, in fact, on the hypothesis that there is a perennial lull.

But economists who, *ex visu* of a point of time, look for example at the behavior of an oligopolist industry—an industry which consists of a few big firms—and observe the well-known moves and countermoves within it that seem to aim at nothing but high prices and restrictions of output are making precisely that hypothesis. They accept the data of the momentary situation as if there were no past or future to it and think that they have understood what there is to understand if they interpret the behavior of those firms by means of the principle of maximizing profits with reference to those data. The usual theorist's paper and the usual government commission's report practically never try to see that behavior, on the one hand, as a result of a piece of past history and, on the other hand, as an attempt to deal with a situation that is sure to change presently—as an attempt by those firms to keep on their feet, on ground that is slipping away from under them. In other words, the problem that is usually being visualized is how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them. As long as this is not recognized, the investigator does a meaningless job. As soon as it is recognized, his outlook on capitalist practice and its social results changes considerably.[15] (. . .)

[15] It should be understood that it is only our appraisal of economic performance and not our moral judgment that can be so changed. Owing to its autonomy, moral approval or disapproval is entirely independent of our appraisal of social (or any other) results, unless we happen to adopt a moral system such as utilitarianism which makes moral approval and disapproval turn on them *ex definitione*.

It is hardly necessary to point out that competition of the kind we now have in mind acts not only when in being but also when it is merely an ever-present threat. It disciplines before it attacks. The businessman feels himself to be in a competitive situation even if he is alone in his field or if, though not alone, he holds a position such that investigating government experts fail to see any effective competition between him and any other firms in the same or a neighboring field and in consequence conclude that his talk, under examination, about his competitive sorrows is all make-believe. In many cases, though not in all, this will in the long run enforce behavior very similar to the perfectly competitive pattern. (. . .)

In the case of retail trade the competition that matters arises not from additional shops of the same type, but from the department store, the chain store, the mail-order house and the supermarket which are bound to destroy those pyramids sooner or later.[16] Now a theoretical construction which neglects this essential element of the case neglects all that is most typically capitalist about it; even if correct in logic as well as in fact, it is like Hamlet without the Danish prince. (. . .)

Practically any investment entails, as a necessary complement of entrepreneurial action, certain safeguarding activities such as insuring or hedging. Long-range investing under rapidly changing conditions, especially under conditions that change or may change at any moment under the impact of new commodities and technologies, is like shooting at a target that is not only indistinct but moving—and moving jerkily at that. Hence it becomes necessary to resort to such protecting devices as patents or temporary secrecy of processes or, in some cases, long-period contracts secured in advance. But these protecting devices which most economists accept as normal elements of rational management[17] are only special cases of a larger class comprising many others which most economists condemn although they do not differ fundamentally from the recognized ones.

[16] The mere threat of their attack cannot, in the particular conditions, environmental and personal, or small-scale retail trade, have its usual disciplining influence, for the small man is too much hampered by his cost structure and, however well he may manage within his inescapable limitations, he can never adapt himself to the methods of competitors who can afford to sell at the price at which he buys.

[17] Some economists, however, consider that even those devices are obstructions to progress which, though perhaps necessary in capitalist society, would be absent in a socialist one. There is some truth in this. But that does not affect the proposition that the protection afford by patents and so on is, in the conditions of a profit economy, on balance a propelling and not an inhibiting factor.

If for instance a war risk is insurable, nobody objects to a firm's collecting the cost of this insurance from the buyers of its products. But that risk is no less an element in long-run costs, if there are no facilities for insuring against it, in which case a price strategy aiming at the same end will seem to involve unnecessary restriction and to be productive of excess profits. Similarly, if a patent cannot be secured or would not, if secured, effectively protect, other means may have to be used in order to justify the investment. Among them are a price policy that will make it possible to write off more quickly than would otherwise be rational, or additional investment in order to provide excess capacity to be used only for aggression or defense. Again, if long-period contracts cannot be entered into in advance, other means may have to be devised in order to tie prospective customers to the investing firm.

In analyzing such business strategy ex visu of a given point of time, the investigating economist or government agent sees price policies that seem to him predatory and restrictions of output that seem to him synonymous with loss of opportunities to produce. He does not see that restrictions of this type are, in the conditions of the perennial gale, incidents, often unavoidable incidents, of a long-run process of expansion which they protect rather than impede. There is no more of paradox in this than there is in saying that motorcars are traveling faster they otherwise would *because* they are provided with brakes.

2. This stands out most clearly in the case of those sectors of the economy which at any time happen to embody the impact of new things and methods on the existing industrial structure. The best way of getting a vivid and realistic idea of industrial strategy is indeed to visualize the behavior of new concerns or industries that introduce new commodities or processes (such as the aluminum industry) or else reorganize a part or the whole of an industry (such as, for instance, the old Standard Oil Company).

As we have seen, such concerns are aggressors by nature and wield the really effective weapon of competition. Their intrusion can only in the rarest of cases fail to improve total output in quantity or quality, both through the new method itself—even if at no time used to full advantage—and through the pressure it exerts on the preexisting firms. But these aggressors are so circumstanced as to require, for purposes of attack and defense, also pieces of armor other than price

and quality of their product which, moreover, must be strategically manipulated all along so that at any point of time they seem to be doing nothing but restricting their output and keeping prices high.

Old concerns and established industries, whether or not directly attacked, still live in the perennial gale

On the one hand, largest-scale plans could in many cases not materialize at all if it were not known from the outset that competition will be discouraged by heavy capital requirements or lack of experience, or that means are available to discourage or checkmate it so as to gain the time and space for further developments. (. . .)

Again this requires strategy that in the short run is often restrictive. In the majority of successful cases this strategy just manages to serve its purpose. In some cases, however, it is so successful as to yield profits far above what is necessary in order to induce the corresponding investment. These cases then provide the baits that lure capital on to untried trails. Their presence explains in part how it is possible for so large a section of the capitalist world to work for nothing: in the midst of the prosperous twenties just about half of the business corporations in the United States were run at a loss, at zero profits, or at profits which, if they had been foreseen, would have been inadequate to call forth the effort and expenditure involved.

Our argument however extends beyond the cases of new concerns, methods and industries. Old concerns and established industries, whether or not directly attacked, still live in the perennial gale. Situations emerge in the process of creative destruction in which many firms may have to perish that nevertheless would be able to live on vigorously and usefully if they could weather a particular storm. (. . .)

All this is of course nothing but the tritest common sense. But it is being overlooked with a persistence so stubborn as sometimes to raise the question of sincerity. And it follows that, within the process of creative destruction, all the realities of which theorists are in the habit of relegating to books and courses on business cycles, there is another side to industrial self-organization than that which these theorists are contemplating. (. . .)

It is certainly as conceivable that an all-pervading cartel system might sabotage all progress as it is that it might realize, with smaller social and private costs, all that perfect competition is supposed to realize. This is why our argument does not amount to a case against state regulation. It does show that there is no general case for indiscriminate "trust-busting" or for the prosecution of everything that qualifies as a restraint of trade. Rational as distinguished from vindictive regulation by public authority turns out to be an extremely delicate problem which not every government agency, particularly when in full cry against big business, can be trusted to solve.[18] (. . .)

Of course, plenty of cases of genuine price rigidity remain—of prices which are being kept constant as a matter of business policy or which remain unchanged because it is difficult to change, say, a price set by a cartel after laborious negotiations. In order to appraise the influence of this fact on the long-run development of output, it is first of all necessary to realize that this rigidity is essentially a short-run phenomenon. There are no major instances of long-run rigidity of prices. Whichever manufacturing industry or group of manufactured articles of any importance we choose to investigate over a period of time, we practically always find that in the long run prices do not fail to adapt themselves to technological progress—frequently they fall spectacularly in response to it[19]—unless prevented from doing so by monetary events and policies or, in some cases, by autonomous changes in wage rates which of course should be taken into account by appropriate corrections exactly as should changes in quality of products. And our previous analysis shows sufficiently why in the process of capitalist evolution this must be so.

What the business strategy in question really aims at—all, in any case, that it can achieve—is to avoid seasonal, random and cyclical fluctuations in prices and to move only in response to the more fundamental changes in the conditions

[18] Unfortunately, this statement is almost as effective a bar to agreement on policy as the most thoroughgoing denial of any case for government regulation could be. In fact it may embitter discussion. Politicians, public officers, and economists can stand what I may politely term the whole-hog opposition of "economic royalists." Doubts about their competence, such as crowd upon us particularly when we see the legal mind at work, are much more difficult for them to stand.

[19] They do not as a rule fall as they would under conditions of perfect competition. But this is true only *ceteris paribus*, and this proviso robs the proposition of all practical importance. I have adverted to this point before and shall return to it below.

that underlie those fluctuations. Since these more fundamental changes take time in declaring themselves, this involves moving slowly by discrete steps—keeping to a price until new relatively durable contours have emerged into view. In technical language, this strategy aims at moving along a step function that will approximate trends. (. . .)

Progress entails, as we have seen, destruction of capital values in the strata with which the new commodity or method of production competes

Perhaps the reader feels some surprise that so little remains of a doctrine of which so much has been made in the last few years. The rigidity of prices has become, with some people, the outstanding defect of the capitalist engine and—almost—the fundamental factor in the explanation of depressions. But there is nothing to wonder at in this. Individuals and groups snatch at anything that will qualify as a discovery lending support to the political tendencies of the hour. The doctrine of price rigidity, with a modicum of truth to its credit, is not the worst case of this kind by a long way.

Another doctrine has crystallized into a slogan, viz., that in the era of big business the maintenance of the value of existing investment—conservation of capital—becomes the chief aim of entrepreneurial activity and bids fair to put a stop to all cost-reducing improvement. Hence the capitalist order becomes incompatible with progress.

Progress entails, as we have seen, destruction of capital values in the strata with which the new commodity or method of production competes. In perfect competition the old investments must be adapted at a sacrifice or abandoned; but when there is no perfect competition and when each industrial field is controlled by a few big concerns, these can in various ways fight the threatening attack on their capital structure and try to avoid losses on their capital accounts; that is to say, they can and will fight progress itself.

So far as this doctrine merely formulates a particular aspect of restrictive business strategy, there is no need to add anything to the argument already sketched in this chapter. Both as to the limits of that strategy and as to its functions in the process of creative destruction, we should only be repeating what has been said before. This becomes still more obvious if we observe that conserving capi-

tal values is the same thing as conserving profits. Modern theory tends in fact to use the concept Present Net Value of Assets (= capital values) in place of the concept of Profits. Both asset values and profits are of course not being simply conserved but maximized. (. . .)

I have entitled this chapter as I did [Monopolistic Practices] because most of it deals with the facts and problems that common parlance associates with monopoly or monopolistic practice. So far I have as much as possible refrained from using those terms in order to reserve for a separate section some comments on a few topics specifically connected with them. Nothing will be said however that we have not already met in one form or another.

(a) To begin with, there is the term itself. Monopolist means Single Seller. Literally therefore anyone is a monopolist who sells anything that is not in every respect, wrapping and location and service included, exactly like what other people sell: every grocer, or every haberdasher, or every seller of "Good Humors" on a road that is not simply lined with sellers of the same brand of ice cream. This however is not what we mean when talking about monopolists. We mean only those single sellers whose markets are not open to the intrusion of would-be producers of the same commodity and of actual producers of similar ones or, speaking slightly more technically, only those single sellers who face a given demand schedule that is severely independent of their own action as well as of any reactions to their action by other concerns. The traditional Cournot-Marshall theory of monopoly as extended and amended by later authors holds only if we define it in this way and there is, so it seems, no point in calling anything a monopoly to which that theory does not apply.

But if accordingly we do define it like this, then it becomes evident immediately that pure cases of long-run monopoly must be of the rarest occurrence and that even tolerable approximations to the requirements of the concept must be still rarer than are cases of perfect competition. The power to exploit at pleasure a given pattern of demand—or one that changes independently of the monopolist's action and of the reactions it provokes—can under the conditions of intact capitalism hardly persist for a period long enough to matter for the analysis of total output, unless buttressed by public authority, for instance, in the case of fiscal monopolies. A modern business concern not so protected—i.e., even if protected

by import duties or import prohibitions—and yet wielding that power (except temporarily) is not easy to find or even to imagine. Even railroads and power and light concerns had first to create the demand for their services and, when they had done so, to defend their market against competition. Outside the field of public utilities, the position of a single seller can in general be conquered—and retained for decades— only on the condition that he does not behave like a monopolist. Short-run monopoly will be touched upon presently.

Why then all this talk about monopoly? The answer is not without interest for the student of the psychology of political discussion. Of course, the concept of monopoly is being loosely used just like any other. (. . .) But this is not all. Economists, government agents, journalists and politicians in this country obviously love the word because it has come to be a term of opprobrium which is sure to rouse the public's hostility against any interest so labeled. In the Anglo-American world monopoly has been cursed and associated with functionless exploitation ever since, in the sixteenth and seventeenth centuries, it was English administrative practice to create monopoly positions in large numbers which, on the one hand, answered fairly well to the theoretical pattern of monopolist behavior and, on the other hand, fully justified the wave of indignation that impressed even the great Elizabeth.

Nothing is so retentive as a nation's memory. Our time offers other and more important instances of a nation's reaction to what happened centuries ago. That practice made the English-speaking public so monopoly-conscious that it acquired a habit of attributing to that sinister power practically everything it disliked about business. To the typical liberal bourgeois in particular, monopoly became the father of almost all abuses—in fact, it became his pet bogey. Adam Smith,[20] thinking primarily of monopolies of the Tudor and Stuart type, frowned on them in awful dignity. (. . .) And in this country monopoly is being made practically synonymous with any large-scale business.

[20] There was more excuse for that uncritical attitude in the case of Adam Smith and the classics in general than there is in the case of their successors because big business in our sense had not then emerged. But even so they went too far. In part this was due to the fact that they had no satisfactory theory of monopoly which induced them not only to apply the term rather promiscuously (Adam Smith and even Senior interpreted for instance the rent of land as a monopoly gain) but also to look upon the monopolists' power of exploitation as practically unlimited which is of course wrong even for the most extreme cases.

The theory of simple and discriminating monopoly teaches that, excepting a limiting case, monopoly price is higher and monopoly output smaller than competitive price and competitive output. This is true provided that the method and organization of production—and everything else—are exactly the same in both cases. Actually however there are superior methods available to the monopolist which either are not available at all to a crowd of competitors or are not available to them so readily: for there are advantages which, though not strictly unattainable on the competitive level of enterprise, are as a matter of fact secured only on the monopoly level, for instance, because monopolization may increase the sphere of influence of the better, and decrease the sphere of influence of the inferior, brains,[21] or because the monopoly enjoys a disproportionately higher financial standing. Whenever this is so, then that proposition is no longer true. In other words, this element of the case for competition may fail completely because monopoly prices are not necessarily higher or monopoly outputs smaller than competitive prices and outputs would be at the levels of productive and organization efficiency that are within the reach of the type of firm compatible with the competitive hypothesis.

There cannot be any reasonable doubt that under the conditions of our epoch such superiority is as a matter of fact the outstanding feature of the typical large-scale unit of control, though mere size is neither necessary nor sufficient for it. These units not only arise in the process of creative destruction and function in a way entirely different from the static schema, but in many cases of decisive importance they provide the necessary form for the achievement. They largely create what they exploit. Hence the usual conclusion about their influence on long-run output would be invalid even if they were genuine monopolies in the technical sense of the term. (. . .)

In the short run, genuine monopoly positions or positions approximating monopoly are much more frequent. The grocer in a village on the Ohio may be a true monopolist for hours or even days during an inundation. Every successful corner may spell monopoly for the moment. A firm specializing in

[21] The reader should observe that while, as a broad rule, that particular type of superiority is simply indisputable, the inferior brains, especially if their owners are entirely eliminated, are not likely to admit it and that the public's and the recording economist's hearts go out to them and not to the others. This may have something to do with a tendency to discount the cost or quality advantages of quasi-monopolist combination that is at present as pronounced as was the exaggeration of them in the typical prospectus or announcement of sponsors of such combinations.

paper labels for beer bottles may be so circumstanced—potential competitors realizing that what seem to be good profits would be immediately destroyed by their entering the field—that it can move at pleasure on a moderate but still finite stretch of the demand curve, at least until the metal label smashes that demand curve to pieces.

New methods of production or new commodities, especially the latter, do not *per se* confer monopoly, even if used or produced by a single firm. The product of the new method has to compete with the products of the old ones and the new commodity has to be introduced, i.e. its demand schedule has to be built up. As a rule neither patents nor monopolistic practices avail against that. But they may in cases of spectacular superiority of the new device, particularly if it can be leased like shoe machinery; or in cases of new commodities, the permanent demand schedule for which has been established before the patent has expired.

Thus it is true that there is or may be an element of genuine monopoly gain in those entrepreneurial profits which are the prizes offered by capitalist society to the successful innovator. But the quantitative importance of that element, its volatile nature and its function in the process in which it emerges put it in a class by itself. The main value to a concern of a single seller position that is secured by patent or monopolistic strategy does not consist so much in the opportunity to behave temporarily according to the monopolist schema, as in the protection it affords against temporary disorganization of the market and the space it secures for long-range planning. Here however the argument merges into the analysis submitted before.

Glancing back we realize that most of the facts and arguments touched upon in this chapter tend to dim the halo that once surrounded perfect competition as much as they suggest a more favorable view of its alternative. (. . .)

If we try to visualize how perfect competition works or would work in the process of creative destruction, we arrive at a still more discouraging result. This will not surprise us, considering that all the essential facts of that process are absent from the general schema of economic life that yields the traditional propositions about perfect competition. At the risk of repetition I will illustrate the point once more.

In this respect, perfect competition is not only impossible but inferior, and has no title to being set up as a model of ideal efficiency

Perfect competition implies free entry into every industry. It is quite true, within that general theory, that free entry into all industries is a condition for optimal allocation of resources and hence for maximizing output. If our economic world consisted of a number of established industries producing familiar commodities by established and substantially invariant methods and if nothing happened except that additional men and additional savings combine in order to set up new firms of the existing type, then impediments to their entry into any industry they wish to enter would spell loss to the community. But perfectly free entry into a new field may make it impossible to enter it at all. The introduction of new methods of production and new commodities is hardly conceivable with perfect—and perfectly prompt—competition from the start. And this means that the bulk of what we call economic progress is incompatible with it. As a matter of fact, perfect competition is and always has been temporarily suspended whenever anything new is being introduced. (. . .)

The firm of the type that is compatible with perfect competition is in many cases inferior in internal, especially technological, efficiency. If it is, then it wastes opportunities. It may also in its endeavors to improve its methods of production waste capital because it is in a less favorable position to evolve and to judge new possibilities. And, as we have seen before, a perfectly competitive industry is much more apt to be routed—and to scatter the bacilli of depression—under the impact of progress or of external disturbance than is big business. In the last resort, American agriculture, English coal mining, the English textile industry are costing consumers much more and are affecting total output much more injuriously than they would if controlled, each of them, by a dozen good brains. (. . .)

In this respect, perfect competition is not only impossible but inferior, and has no title to being set up as a model of ideal efficiency. It is hence a mistake to base the theory of government regulation of industry on the principle that big business should be made to work as the respective industry would work in perfect competition."[22]

[22] Capitalism, *supra* note 1, at 78-106.

III. PASSAGES FROM EDWARD S. MASON'S CRITIQUE OF 1951

Mason (1899-1992) was a good friend and a member of what Schumpeter called his "inner circle" of younger colleagues. Along with two other Harvard economists (E.H. Chamberlin and Joe S. Bain), Mason was one of the pioneers of industrial organization theory. He and Bain led the development of the structure-conduct-performance paradigm that dominated the sub-field of industrial organization from about the late 1940s to the 1980s, when it began to yield to game theory and other approaches.

The following excerpts comprise about 20 percent of Mason's article in *The Review of Economics and Statistics*.[23] This issue was dedicated to Schumpeter and its contents were devoted entirely to his work (he had died in 1950). In addition to Mason, the 14 contributors comprised something of an all-star lineup of the profession at that time: Paul Samuelson, Alvin Hansen, Jan Tinbergen, Gottfried Haberler, Fritz Machlup, Seymour Harris, E.H. Chamberlin, Erich Schneider, Arthur Marget, David McCord Wright, Wolfgang Stolper, Arthur Smithies, and A.P. Usher. Six of these economists had been Ph.D. students of Schumpeter's.

Overall, the authors were appropriately generous, but most pulled no punches in their evaluations. Tinbergen, for example, argued (correctly) that Schumpeter was not really a mathematical economist. Chamberlin argued (incorrectly) that Schumpeter had misunderstood his work on monopolistic competition. Mason, as is evident in the following passages, credits Schumpeter with real insight but contends that he provides no practical guide to antitrust policy. This is a fair assessment within the limits of the structure-conduct-performance framework in which Mason was writing, although part of the last sentence in his first paragraph (on the necessity of market power for innovation) is a gross distortion of Schumpeter's thinking. On the whole, Mason's comments go far in explaining why, for so long, Schumpeter's analysis had so little impact on competition theory (footnotes are quoted as cited):

> "These chapters [VII and VIII of *Capitalism, Socialism and Democracy*] which bring together and sharpen earlier views on the role of the large firm in the competitive process, represent one of the most effective as well as most drastic critiques extant concerning traditional patterns of anti-trust thought. The critique is drastic and effective because it plausibly undermines the two main pillars of the traditional ideology: first that market power is the proper object of

[23] Edward Mason, *Schumpeter on Monopoly and the Large Firm*, 33 Rev. Econ. & Stat. 139-144 (1951).

Schumpeter maintains that his argument is not a case against all anti-monopoly policy but only a particular variety of policy

attack since power means the ability to exploit; and, second, that the preservation of competition, meaning the exclusion of position of market power, will assure the efficient use of resources. The essence of Schumpeter's position is that market power is necessary to innovation and that innovation is the core of effective competition. (. . .)

Schumpeter maintains that his argument is not a case against all anti-monopoly policy but only a particular variety of policy. There may be "cases of restrictive or regulating strategy" that have "that injurious effect on the long-run development of output which is uncritically attributed to all of them."[24] He does not, however, give us much help in determining what business practices or strategies might be expected to produce expansive rather than restrictive results. What he has to say in criticism of existing policy constitutes a challenge that every serious student of the "monopoly problem" must take to heart. But whether his view of competition as the process of "creative destruction" could be made to yield principles applicable by government agencies and the courts in pursuit of a "rational" as opposed to a "vindictive" anti-monopoly policy is a different matter.

American anti-trust policy, as distinguished from the anti-monopoly policy of most other countries, purports to be—and to some extent is—an attack upon positions of market power. Whereas legislation and administrative practice elsewhere has emphasized *abuse* of power, including the charging of unreasonable prices, as the proper object of attack, and has recognized the possibility of "good" monopolies, American practice, within certain areas at least, has attacked market power as such. "The reasonable prices fixed today—may become the unreasonable prices of tomorrow" runs the language of a famous anti-trust decision.[25] And with respect to certain kinds of agreements in restraint of trade, i.e., certain attempts to secure a position of market power, the judicial position has been that they are unreasonable and illegal *per se*.

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[24] Capitalism, *supra* note 1, at 91.

[25] U.S. vs. Trenton Potteries Co. et al. 273 U.S. 392.

Needless to say, however, U.S. anti-trust policy has not been entirely consistent. Large firms enjoying a position of market power have remained immune, while associations with much less power have been broken up. (. . .)

Schumpeter is on surer—and also more important—ground in his evaluation of the results of innovation, that is to say, the relation of innovation to effective competition. Here he denies completely the significance for public policy purposes of any standard of evaluation derived from pure competition, marginal cost-price relationships, or other formulations of static economic analysis. His general position is best stated in a proposition quoted with approval by Pigou.

> A system—any system, economic or other—that at every point of time fully utilizes its possibilities to the best advantage may yet in the long run be inferior to a system that does so at no given time, because the latter's failure to do so may be a condition for the level or speed of long-run performance.[26] (. . .)

During the nineteenth century innovation, according to Schumpeter, was typically the product of new firms. "The new processes do not, and generally cannot, evolve out of the old firms, but place themselves side by side with them and attack them."[27] In the twentieth century epoch of "trustified" capitalism, however, innovations issue from existing firms and, as indicated above, usually from large ones. Furthermore, although the creation of giant firms represents a high form of innovating ability that could not be expected to be brought to fruition except in a capitalism that gives full scope to exceptional talent, the process of concentration ends up by making innovations quasi-automatic.

> It meets with much less friction, as failure in any particular case loses its dangers, and tends to be carried out as a matter of course on the advice of specialists. Progress becomes "automized," increasingly impersonal and decreasingly a matter of leadership and individual initiative.[28] (. . .)

[26] The quotation is from CAPITALISM, *supra* note 1, at 83. It is cited in A.C. Pigou, LAPSES FROM FULL EMPLOYMENT 71 (1945).

[27] "The Instability of Capitalism," 28 ECON. J. 384 (1928).

[28] *Ibid., Cf.* also *Der Unternehmer in der Volkswirtschaft von heute, in* STRUKTUR WANDLUNGEN DER DEUTSCHEN VOLKSWIRTSCHAFT, I (1928), p. 303, where these ideas are worked out in greater detail.

Particularly serious difficulties are presented when the attempt is made to apply Schumpeter's analysis in the field of public policy

Particularly serious difficulties are presented when the attempt is made to apply Schumpeter's analysis in the field of public policy. Here the problems presented are what to do about a specific agreement in restraint of trade, a particular combination of hitherto independent firms, or a concrete set of business practices. If one took at face value his admonition that, since we are dealing with an organic process that takes time, a judgment on the consequences of any particular part of it—say a combination of hitherto independent firms—can only be an historical judgment, as these consequences "unfold over decades," and a partial judgment, since the repercussions reverberate throughout an economy which is in process of "organic development," informed public action would clearly be impossible. However, Schumpeter assures us that what he is opposed to is not every anti-monopoly policy but only certain kinds of monopoly policy.[29]

What a "sensible" as opposed to a "vindictive" anti-monopoly policy would presumably emphasize are mainly the possibility that various restrictive activities may be a necessary concomitant to innovation with its accompanying investment decisions, and that a firm producing new products and processes may be a more effective stimulant to efficient behavior on the part of others than a large number of routine competitors. What this appears to boil down to in terms of practical application is a useful admonition that the existence of a large firm or a few large firms in a market is not necessarily incompatible with effective competition. (. . .)

Schumpeter most certainly exaggerated the extent of the influence exerted on American business organization and business practices by anti-trust policy. Furthermore, he painted a picture of anti-trust objectives and of the ideological justification of these objectives that is in many respects distorted and out of focus. Nevertheless, his powerful attack on the limitations of static economic analysis as an intellectual foundation for a public anti-monopoly policy is highly salutary and profoundly correct. And his discussion of the political environ-

[29] Capitalism, *supra* note 1, at 134.

ment in which public policy toward business organization and business practices actually gets shaped is a useful corrective to the thinking of those colleagues who conceive that policy can be divorced from politics. Finally, although it is difficult to the point of impossibility to derive from Schumpeter's "process of creative destruction" an analytical framework on which applicable and effective anti-trust standards might be built, his analysis suggests lines of research and invokes considerations that must play a role in formulating an acceptable public policy in this area."

IV. CURRENT USE OF SCHUMPETER'S THEORIES

For three decades after the appearance of Mason's article in 1951, relatively few economists read or cited Schumpeter. But then the Schumpeterian revival began in earnest. In a retrospective analysis of *Capitalism, Socialism and Democracy*, published in 1981, another all-star lineup once again paid tribute to his work. His great student Paul Samuelson wrote that "a century after Schumpeter's birth, we take his writings seriously and treat them as living contributions to contemporary debate."[30] In 1983, the centennial of the birth of both Keynes and Schumpeter, *Forbes*[31] ran a cover story, written by Peter Drucker, arguing that it was Schumpeter, not Keynes, who would provide the better guide to the economic changes that were beginning to engulf the world. In 1984, the German economist Herbert Giersh suggested in the *American Economic Review*[32] that the Age of Keynes was about to yield to the Age of Schumpeter. In the 1991 edition of his best-selling *The Worldly Philosophers*,[33] Robert Heilbroner devoted an entire chapter to Schumpeter, and concluded that more than any other great economist depicted in his book, "Schumpeter speaks to us with a voice that is unmistakably contemporary." Time has proved all of these judgments correct.

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[30] Paul Samuelson, *Schumpeter's Capitalism, Socialism and Democracy* in Schumpeter's Vision: Capitalism, Socialism, and Democracy After 40 Years 21 (Arnold Heertje, ed., 1981).

[31] Peter Drucker, *Schumpeter and Keynes*, Forbes 124 (May 23, 1983).

[32] Herbert Giersh, *The Age of Schumpeter*, 74 Am. Econ. Rev. 103-109 (1984).

[33] Robert Heilbroner, The Worldly Philosopher: The Lives, Times, and Ideas of the Great Economic Thinkers 291 (6th ed., 1991).

Before we get too enthusiastic about Schumpeter's work as a beacon of public policy, however, we should keep in mind three caveats:

1. Grand social theorists are not always reliable guides in specific cases. Their ideas can easily be distorted, either deliberately or inadvertently, in service to some immediate goal that the theorists themselves would not have supported. Karl Marx, for example, who urged that "workers of the world unite," would never have endorsed the "socialism in one country" doctrine set forth by Nikolai Bukharin and adopted by Joseph Stalin in 1925, let alone the Stalinist terrors that became institutionalized in 1927. The same point holds true of great economists who did not aspire to grand social theory. Many ostensibly "Keynesian" public policies—especially in the U.K. and the U.S. between about 1950 and 1980—would not likely have been approved by Keynes had he been alive to evaluate them.

2. In the case of Joseph Schumpeter, he addressed so many topics over so long a period (his first work appeared in 1905, his last posthumously, in 1954), that he frequently adjusted his thinking. He wrote so voluminously during this half-century that it is not hard to find apparently contradictory statements in his work, most of which reflect altered external conditions. This characteristic is so pronounced in Schumpeter's writings that it calls to mind the famous lines from the poet Walt Whitman's *Song of Myself* (1851):

   > "Do I contradict myself?
   > Very well, I contradict myself.
   > (I am large, I contain multitudes)."

3. Beyond arguing against mindless trust busting and the conflation of big business with monopoly, Schumpeter very seldom addressed antitrust concerns directly. His central interests had much less to do with industrial organization per se than with entrepreneurship, innovation, business cycles, and the history of economic analysis. The courses he taught at Harvard were mostly on economic theory and on the history of economics as a discipline.

During the 1960s, before Schumpeter's work was taken up for purposes of antitrust analysis, a substantial related literature began to develop around what, unfortunately, became known as "the Schumpeter hypothesis." This alleged hypothesis held that large firms were better at innovation than small firms. Numerous articles appeared—many from prominent scholars—either supporting or attacking the hypothesis. But, as Anne Mayhew correctly pointed out in 1980, Schumpeter had never even formulated such a hypothesis.[34]

Throughout his career, Schumpeter admired entrepreneurial startups, and he almost surely would have been delighted by phenomena such as the evolution of Silicon Valley, a center of creative destruction if there ever was one

It is true, as is evident in the quoted excerpts from *Capitalism, Socialism and Democracy*, that Schumpeter thought that certain kinds of innovation required teams of researchers. But it is equally clear from his writings that he believed innovation could emerge from almost any source: the lone entrepreneur (the New Man founding a New Firm); the medium-sized company; or the giant corporation with its institutionalized R&D labs.

Throughout his career, Schumpeter admired entrepreneurial startups, and he almost surely would have been delighted by phenomena such as the evolution of Silicon Valley, a center of creative destruction if there ever was one. As for whether he would have taken the side of a company such as Microsoft in its major antitrust suits, it's impossible to say. From the totality of his writings, and allowing for certain self-contradictions, it seems likely that he'd have admired Microsoft greatly in its early years, but would then have turned his preferences to some (not all) of its many scrappy challengers.

[34] About 20 useful articles have appeared on the misnamed "Schumpeter hypothesis." Some of the most useful are Franklin Fisher and Peter Temin, *Returns to Scale in Research and Development: What Does the Schumpeterian Hypothesis Imply?*, 81 J. Pol. Econ.56-70 (1973); F.M Scherer, *Schumpeter and Plausible Capitalism*, 30 J. Econ. Literature 1416-1433 (1992); and Tom Nicholas, *Why Schumpeter was Right: Innovation, Market Power, and Creative Destruction in 1920s America*, 63 J. Econ. Hist. 1023-1058 (2003). Part of this debate is analyzed in David Reisman, Schumpeter's Market: Enterprise and Evolution, Ch. 5 (2004). A particularly good example of the frequent misreadings of the "Schumpeter hypothesis" is J.B. Rosenberg, *Research and Market Share: A Reappraisal of the Schumpeter Hypothesis*, 25 J. Ind. Econ. 101-112 (1976): "Schumpeter believed that technological innovations are more likely to be initiated by large rather than small firms" at 101. This statement, and many like it from other scholars, is incorrect, but plausible from a selective reading of Schumpeter's sometimes contradictory and ambiguous language. See the useful corrective by Anne Mayhew, *Schumpeterian Capitalism versus the "Schumpeterian Thesis"*, 14 J. Econ. Issues 583-592 (1980). Mayhew points out that most of the support for the existence of the "Schumpeterian thesis" derives from a single sentence on p. 106 of Capitalism, Socialism and Democracy—a sentence which is often taken out of context and which does not begin to express the complexity of Schumpeter's thinking. That sentence is: "What we have got to accept is that . . . [the large-scale establishment] has come to be the most powerful engine of . . . progress and in particular of the long run expansion of total output."

It is here that Schumpeter's enthusiasm for history becomes most relevant to his stance toward competition policy. One of the many lessons of history, as the Cambridge historian F.W. Maitland once said, is that "What is now in the past was once in the future." To put it another way, we simply cannot know with much certainty what the long-term consequences of particular antitrust decisions are going to be. Often the losers of the case turn out to be winners over the long haul, and vice-versa. In the landmark cases of Standard Oil and American Tobacco in 1911, for example, the companies lost and were forcibly split up; but both became more efficient over the long run. Conversely, U.S. Steel won its prolonged case in 1920 (in large part because it had stopped competing as fiercely as its constituent company Carnegie Steel had done). But by 1938 it had lost about two-thirds of the market share it had held at the time of its formation in 1901.[35]

In the case against IBM that began in 1969, antitrust pressures forced the company, over time, to alter its monopolistic practices. Had that not occurred, it seems unlikely that innovation in information technology would have grown at the blinding speed we now take for granted. The same is true of the 1984 breakup of AT&T under antitrust pressures. At the time of that breakup, many economists believed it to be a tragic mistake—some because it endangered (and ultimately killed) Bell Labs, one of the nation's finest centers of R&D. Yet we now know that for IBM, its competitors, and AT&T's successor firms, the long-term consequences of antitrust pressures unleashed immense entrepreneurial energy that otherwise might have remained dormant. That energy produced exactly the types of innovations that we most identify with Joseph Schumpeter.

A similar historical uncertainty emerges when we apply the "what is now in the past was once in the future" test to the related subject of deregulation. During the three decades since that movement began in the 1970s, the unanticipated consequences have been almost as numerous as the intended ones. In the case of airlines, the results have been painful but mostly positive; for railroads and trucking, clearly positive; for telecommunications, very positive; for electric utilities, mixed but on balance likely negative; for financial institutions, numerous innovations (complex derivatives, structured investment vehicles, credit default swaps), but some of them potentially catastrophic for the national economy.

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[35] F. M. Scherer has often pointed out this pattern of unexpected consequences from wins and losses in big antitrust cases, including most of those mentioned here. On U.S. Steel, see also Thomas K. McCraw & Forest Reinhardt, *Losing to Win: U.S. Steel's Pricing, Investment Decisions, and Market Share*, 1901-1938, 49 J. Econ. Hist. 593-619 (1989).

These judgments themselves, of course, must be tentative and premature. Only in the long term can we be more certain. And Schumpeter almost always thought in the long term. This characteristic could hardly be more conspicuous than in the quoted passages from *Capitalism, Socialism and Democracy*, in which he writes of the "meaningless job" of drawing economic conclusions "*ex visu* of a point of time," about "a situation that is sure to change presently." Judges and juries must inevitably draw economic conclusions in antitrust cases, but it is not what Schumpeter chose to do. He almost never expressed an opinion of how pending legislation should be decided, and it is very hard to imagine his taking part in any case as a consultant or expert witness.

Schumpeter had been trained at the University of Vienna as a lawyer as well as an economist, but he had left the practice of law in 1908—a step that tells us a great deal about his preferred way of thinking. In the area of competition policy, his main fear during the 1930s and 1940s was of what he called "indiscriminate trust busting." No such eventuality came to pass, as we now know, despite some unwise Supreme Court decisions during the 1940s. From the vantage point of our own time, indiscriminate trust busting seems the precise opposite of what has occurred since the 1940s.[36]

In 1943, a year after the appearance of Capitalism, Socialism and Democracy, Schumpeter wrote in his diary, "Two kinds of people I distrust: architects who profess to build cheaply, and economists who profess to give simple answers." So it would be quite an irony if his name became attached to a particular approach to antitrust. Economists and others are free to invoke his name in specific cases, of course, but in doing so they should tread carefully—very carefully.[37]

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[36] Schumpeter used this phrase not only in CAPITALISM but also in his presidential address to the American Economic Association in December 1948. See his discussion of the monopoly question in Joseph Schumpeter, *Science and Ideology*, 29 AM. ECON. REV. 347-349 (1949). Italics in original.

[37] One of the best articles on this question is Michael Katz & Howard Shelanski, *"Schumpeterian" Competition and Antitrust Policy in High-Tech Markets,* 14 COMPETITION 47 ff. (2005). Less impressive is Michael Carrier, *Two Puzzles Resolved: Of the Schumpeter-Arrow Stalemate and Pharmaceutical Innovation Markets*, 93 IOWA L. REV. 393 (Feb. 2008), which, like many of the articles cited in note 34 above, makes the mistake of identifying Schumpeter's position as favoring industry concentration as a means to innovation.