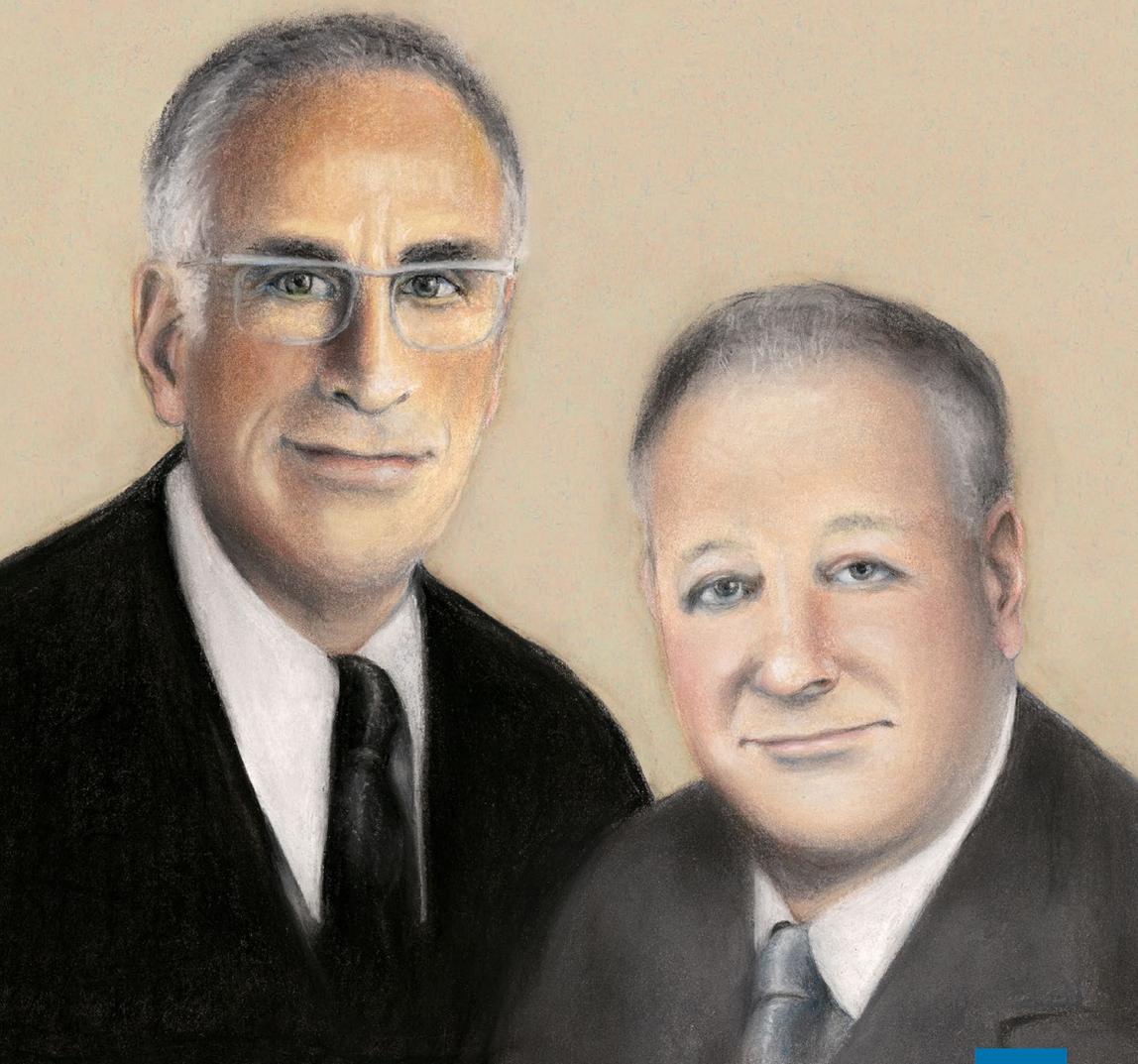


The Essential UCLA SCHOOL OF ECONOMICS



by David R. Henderson and Steven Globerman

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The Essential UCLA School of Economics

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and Steven Globerman*

Fraser Institute
www.fraserinstitute.org
2021

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Printed and bound in Canada

Cover artwork
Leslie Lighthouse

ISBN 978-0-88975-646-5

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Chapter 1

What was the UCLA School?

No person or group poses detailed questions of how the community is to use its resources, and no one imposes comprehensive answers to the questions. Yet such problems—large and small—somehow are solved daily. No agency is appointed to ensure that adequate food reaches every city and is allocated among competing claimants—and yet the people eat.

— Armen A. Alchian and William R. Allen, *University Economics*,
3rd ed., p. 6.

The UCLA School of economic thinking was a strong free-market tradition in late twentieth century economics. Some who observed it from a distance humorously referred to UCLA as “the University of Chicago at Los Angeles.” In some ways it was almost as strong as the University of Chicago School, whose most notable members in the 1960s and 1970s were Milton Friedman, George Stigler, and Gary Becker. In other ways, the UCLA School was even stronger. Armen Alchian, in particular, was one of a kind. His relentless application of economic analysis, especially analysis of property rights, was not replicated anywhere else. In the area of property rights, Harold Demsetz was a close second. The UCLA School was at its zenith from the mid-1960s to the late 1980s.

The UCLA tradition carries on in the work of dozens of economists who earned their PhDs at UCLA during its golden years. Also, because the work spread beyond UCLA, the tradition lives on in the work of scores of economists who had no formal connection with UCLA.

In this short book, we, who both earned graduate degrees in economics at UCLA during the 1970s (Globerman earned his Masters in 1970 and Henderson his PhD in 1976) lay out the most pathbreaking insights that

various members of the UCLA School had, insights that still influence economics today.

The most important economists at UCLA during the 1970s were Armen Alchian, Harold Demsetz, Sam Peltzman, Benjamin Klein, Robert Clower, Axel Leijonhufvud, Jack Hirshleifer, William Allen, and George Hilton.

A distinguishing feature of most of the UCLA economists' contributions is that they were non-mathematical. This was especially notable in an era in which mathematics had almost taken over economics. The major UCLA School contributors used mainly words and occasionally graphs. Another distinguishing feature is their use of basic economic analysis to understand behaviour that had previously not been understood or had even been misunderstood.

The most important member of the School was Armen Alchian, who died in 2013. Alchian taught at UCLA from 1946 until his retirement in 1984. As you will see throughout this volume, Alchian's insights and writings underlie a distinctive theme of the School's approach to economics: in most productive activity, the profit motive, combined with private property rights, successfully aligns the interests of producers and consumers, often in subtle ways.

As Susan Woodward, a former graduate student of Alchian's, has noted, Alchian had no use for formal models that did not teach us to look somewhere new in the known world. Nor had he any patience for findings that relied on fancy statistical procedures. Alchian saw basic economics as a powerful tool for explaining much of human behaviour in both market and non-market settings. Much of Alchian's work was guided by the insight: "You tell me the rules and I'll tell you what outcomes to expect." As Woodward has noted, Alchian believed that a huge amount of human behaviour could be understood if one got straight what the property rights (i.e., the rules) were.

Another major accomplishment of Alchian's was, in collaboration along with his long-time UCLA colleague William R. Allen, the undergraduate textbook *University Economics*. The textbook, the first edition of which was published in 1964, was rare in a way that gave it standing in the economics profession: it taught economics not only to undergraduates but also to graduate students and even economics professors. Many graduate students and economics professors over the years have reported that they learned more economics from that textbook than from any other single book.

Perhaps one quote from a question at the end of a chapter will illustrate how radical (in the sense of going to the root), *University Economics* was:

”Technically speaking, any labor union is a monopoly in the limited sense that it eliminates competition between workingmen for the available jobs in a particular plant or industry. After all, unions are combinations of workingmen to increase, by concerted economic action, their wages, i.e., the price at which the employer will be able to purchase their labor.” (Arthur Goldberg, Justice, Supreme Court of the United States, and formerly Secretary of the Department of Labor and counsel for the United Steelworkers; quoted from AFL-CIO: *Labor United*, New York, McGraw-Hill, 1956, p. 157.) Why did he write “*technically speaking*” and “in the *limited* sense”? Is there some other mode of speaking and is there an unlimited sense of monopoly? (Alchian and Allen, 1972, 3rd edition: 449)

And consider this dramatic way of introducing the economic concept of scarcity in the first two sentences of the book’s first chapter:

Ever since the fiasco in the Garden of Eden, most of what we get is by sweat, strain, and anxiety. Two villains—nature and other people—prevent us from having all we want. (Alchian and Allen, 1972: 3)

The second most prominent member of the UCLA School was Harold Demsetz. Demsetz spent most of his professional life at UCLA and at the University of Chicago. Demsetz made major contributions to the study of property rights and to regulation and antitrust policy. As Sam Peltzman has noted, Demsetz fundamentally revolutionized thinking about the prevailing logic underlying antitrust theory. Prior to Demsetz’s work, economists in the area of what’s called industrial organization were suspicious of big firms whose revenues were a large percent of overall industry revenues. Such firms charged above-competitive prices, they claimed, thereby harming consumers and reducing overall economic efficiency. Demsetz argued that market concentration could reflect the superior efficiency of firms with

large market shares primarily resulting from innovation, and he supported his argument with empirical evidence. Government efforts to break up large firms or restrain their growth was, therefore, likely to reduce innovation and economic efficiency, with consequent harm to consumers. Peltzman argues that Demsetz's work fundamentally altered the hitherto mechanical application of legal restrictions on mergers between relatively large firms to a more "rule-of-reason"-based approach, whereby the potential for efficiency gains was weighed in the balance.

The UCLA School was also prominent in the area of economic regulation. Sam Peltzman and George Hilton challenged the conventional wisdom about the objectives of regulators and the consequences of regulation. The traditional economic justification for government regulation of private sector businesses is that regulations are needed to protect consumers against business abuses such as monopoly pricing, cheating on the quality of products sold, the sale of hazardous products, and misleading consumers through false advertising claims or by failing to disclose important information such as the true annual interest rate on an automobile loan. In the idealized view of regulation, the regulators are informed public-spirited people who work only to promote the social good.

Peltzman and Hilton debunked this idealized view of regulatory behaviour by documenting how regulators pursue their own interests in carrying out their activities and showing that the interests of regulators are often at odds with the social interest. In particular, regulation often stifles competition, resulting in higher prices.

Even when enlisting expert advice, it is extremely difficult for regulators to form a complete and accurate picture of how specific regulations will affect the behaviour of the many individuals and organizations affected. It is impossible, for example, for regulators to forecast how new technologies and new uses of existing technologies will undermine the intent of the regulator. Hilton noted that the regulatory experience is replete with examples of how the non-competitive price structures imposed by regulators encouraged the use of new technologies to circumvent, and ultimately render unsustainable, existing regulatory decrees.

The UCLA School was at the forefront in documenting that inefficient regulations create incentives to avoid those regulations, which often results in new ways of performing the regulated activity, although not necessarily

as efficiently as would be the case in the absence of the regulations. It also documented how efforts to protect and perpetuate regulated monopolies contribute to delays in implementing changes that would improve the economic welfare of large numbers of consumers in order to protect the economic interests of a relatively small number of incumbent producers.

For example, Eckert and Hilton (1972) tell the story of electric street railways, which were the main form of urban public transportation in the early 1900s. Most street railways operated one or a small number of lines that ran along main streets and covered a limited area of the city. Furthermore, in virtually every city, the street railway charged a flat 5-cent fare regardless of the distance a passenger traveled. The rigid layout of street railways and the implicit penalty the flat fee imposed on short-haul commuters encouraged the growth of private jitney services, i.e., individuals who would use their own cars or rented cars to provide transportation services to those who wanted to travel off the main routes covered by the street railways. They also provided for flexible capacity, as more jitneys were available during peak hours and charged rates that were responsive to demand conditions, e.g., higher rates during peak commuting hours and lower rates during off-peak periods.¹

In short order, a large number of privately owned automobiles were competing with street railways. The railways sought protection from municipal governments against this competition. Municipal governments saw benefits to limiting competition. One benefit was the tax revenues they could collect from the monopoly profits earned by regulated street railways that enjoyed exclusive rights to operate on specific routes. Another benefit was that they received political donations and other support from the established and relatively well-funded streetcar owners. For those reasons, they granted protection from competition. Local governments introduced regulations designed to raise the costs of jitney operators and reduce the flexibility of the service they offered. The regulations were especially punitive for short-haul jitney businesses. The result was that most jitneys were eliminated fairly quickly. Eckert and Hilton argue that allowing free entry, while ensuring that jitney operators bore the full costs of their operations, including paying their

¹ Contemporary readers might see a parallel to the rise of companies such as Uber and Lyft in response to the rigidities and relatively high fares that characterize taxicab services in urban centers.

share for street repairs, would have saved society decades of unsatisfactory experience with inefficient alternatives, including buses that operated in much the same way as street railways.

The moral of this and similar stories is that regulators cannot extinguish the incentives of market participants to create economic gains for themselves by providing cheaper and/or more convenient goods and services for customers, and efforts by regulators to thwart the pursuit of those incentives perpetuate economic inefficiencies that make society as a whole economically poorer. In particular, many consumers pay more for the relevant goods and services than they would have paid if markets were deregulated, while established firms often earn higher profits than they would have earned in an unregulated competitive market.

An overview of the UCLA School would be incomplete without mention of Benjamin Klein's work in monetary theory, and Robert Clower and Axel Leijonhufvud's work in macroeconomics. In the 1970s, Klein was one of the early economists who took seriously the idea of competing money supplies. He also, as will be seen in Chapter 7, contributed path-breaking work in industrial organization generally and on the economics of the vertical integration of firms specifically.

Leijonhufvud did some early work arguing that most Keynesians had misinterpreted John Maynard Keynes's *General Theory of Employment, Interest, and Money*. In follow-on work, Leijonhufvud and Robert Clower argued that when existing market prices, especially wages, depart substantially from prices that would equilibrate supply and demand and there are strong frictions that make this equilibration costly, an economy can remain in disequilibrium for an extended period of time. Leijonhufvud had argued that people misinterpreted Keynes's explanation of less than full-employment equilibrium as a problem of insufficient aggregate demand rather than a problem of inflexible prices.

Not to be missed in a summary of contributions by UCLA economists is the work of Thomas Sowell. He wrote his 1975 book *Race and Economics*, a precursor to his much more extensive work on the economics of various ethnic groups, while at UCLA.

In the chapters to follow, we discuss more of the specific contributions of Alchian, Demsetz, Peltzman, Klein, Hilton, and Hirshleifer. We think you

will find it an exciting excursion through the fundamentals of late twentieth century economic thinking.

Chapter 2

Can Property Rights Help Us Understand People's Actions and Even Reduce Conflict?

One of the most fundamental requirements of a capitalist economic system—and one of the most misunderstood concepts—is a strong system of property rights. For decades social critics in the United States and throughout the Western world have complained that “property” rights too often take precedence over “human” rights, with the result that people are treated unequally and have unequal opportunities. Inequality exists in any society. But the purported conflict between property rights and human rights is a mirage. Property rights are human rights.

— Armen A. Alchian (2008), “Property Rights,” p. 422.

How property rights reduce conflict

Should restaurants allow smoking or not? Should schools teach evolution or intelligent design or both? Should insurance companies cover contraception? Should we be able to take off our shoes in your living room?

You might think that that last question doesn't belong with the first three. After all, the first three questions are momentous ones about “public policy.” The last one is only about the rules you have for our behaviour in your living room—a “private policy” question. And your answer to that question will depend on how you want to use your property.

But think about what you just read: Your answer to whether we should be able to remove our shoes in your living room depends on how *you* want to use your *property*. What is implicit here, but obvious to all, is that the choice

is *yours*. We have no say in the matter. That doesn't mean you won't take account of our thoughts and feelings. You will. Let's assume that you find it distasteful for us to take off our shoes, but that you like our company. Let's further assume that telling us that we can't get comfortable by taking off our shoes will mean that we won't want to visit you. You will then trade off your distaste at having us shoeless with the pleasure you take from our company. If one outweighs the other, in your subjective estimation, then you'll choose accordingly.

Notice how property rights solve the problem. It's *your* living room and so you get to choose. How your living room gets used is not a public policy problem.

Although Armen Alchian and Harold Demsetz never, as far as we know, used the shoe example, it's a clear example of the way they reasoned to the conclusion that well-defined property rights solve problems and create harmony.

If property rights are respected, none of the other three questions is a public policy problem either. Consider each in turn.

Should a restaurant allow smoking? We have no idea. Neither do you. Who does? The restaurant owner. The restaurant owner knows that if he bans smoking, he will get more business from non-smokers and less business from smokers. He also knows that if he doesn't ban smoking, he will get more business from smokers and less from non-smokers. He will make that tradeoff and, if he has no particular interest one way or the other, will likely do so in a way that maximizes his net income from running a restaurant.

But don't his employees matter? Yes, they do, and the restaurant owner knows they do and has an incentive to take account of their preferences. If his employees don't like working where there's smoke, he will take account of both the extra wages he must pay to get good employees and the higher turnover of employees. These all factor into his decision. Interestingly, though, a former waitress told one of the authors that even though she doesn't like smoke, she and her colleagues had preferred, as waiters and waitresses, to work in restaurants that allowed smoking. Why? Because, she said, people who smoked also had a higher probability of drinking alcohol and, therefore, had higher restaurant tabs and paid bigger tips.

In short, whether restaurant owners should allow smoking is not a public policy problem. It's a totally private issue, and the person who should

make the decision is the owner. The only reason it looks like a public policy problem is that the government has made it one—by increasingly putting its thumb on the scales and forcing restaurants to disallow smoking.

A true story about two well-known economists is à *propos*. Robert Barro, an economics professor at Harvard University, hates smoke. When he was on the economics faculty at the University of Chicago, at a time when smoking was allowed, he had a “No smoking” sign on his office door. But that’s not all the sign said. One of Barro’s colleagues at the time was Robert Lucas, a brilliant economist who, in 1995, won the Nobel Prize in Economics. Lucas was also a heavy smoker. Barro treasured his conversations with Lucas. So, the full text of sign was: “No smoking, except for Bob Lucas.”

In other words, Bob Barro traded off his intense dislike of cigarette smoke for his intense appreciation of his conversations with Bob Lucas. He made a judgment about how to use his property—his office—based on that tradeoff. That’s similar to the story about how you would use your living room if you valued our company but “disvalued” our being shoeless.

Consider the question of whether schools should teach evolution or intelligent design or both. Your first instinct might be to say that the answer depends on which is true: evolution or intelligent design. But what if what one person thinks is true is something that another person thinks is false? Some people are absolutely sure that evolution is true, while others are absolutely sure that intelligent design explains why we we’re here on planet Earth.

But the only reason this appears to be a public policy problem is that with a prior intervention, governments have made it one. How so? By taxing people, some of whom believe in intelligent design, some of whom believe in evolution, and some of whom don’t know what they believe, to pay for other people’s schooling. In other words, it appears to be a public policy problem because of a prior restriction of people’s right to keep their own property. That’s why there is conflict. People who argue that they shouldn’t be forced to subsidize the teaching of intelligent design have a point. So do those who argue that they shouldn’t be forced to subsidize the teaching of evolution. Thomas Jefferson put it best: “To compel a man to furnish contributions of money for the propagation of opinions which he disbelieves and abhors is sinful and tyrannical.”

If the government got out of schooling and let people choose how and where to spend their money on their children’s schools and on other children’s

schools (we are assuming that, consistent with history, many relatively affluent people who are free to choose how to spend their money would willingly subsidize the schooling of those who are less affluent),² the problem would go away. Those who want to finance the teaching of evolution would do so; those who want to finance the teaching of intelligent design would do so. The conflict would disappear.

Of course, there would still be people who are upset that a school teaches something they disapprove of, but that doesn't mean that there would be conflict. If everyone's property rights were respected, there would be no conflict. There would simply be people who are upset by others' choices.

Consider, finally, a hot-button issue that came up in the United States during the last decade: Should insurance companies cover contraception? That's for each individual insurance company to decide. In making that decision, will they consider the interests of their customers? Absolutely. It's in the insurance companies' interest to do so. How will they think about it? Companies whose owners or managers think it's immoral to cover contraception probably will not cover contraception. They have the right not to do so and their rights should be respected. Most companies will probably think about it the standard way they think about these things: How much are customers willing to pay to get coverage for contraceptives? And how much will it cost the insurance company to provide such coverage, taking account of the fact that covering contraception might save the insurance company money that it would have spent on abortions and on pregnancies brought to term? The insurance companies probably have a lot of information on these issues. We can tell them little that they haven't thought of. But it's not a public policy issue unless the government makes it one. It's a matter for the insurance company to decide. Then customers can decide whether to deal with that company.

This is just a small list of the problems that are apparently "public policy" problems only because the government has chosen to make them so. Private property solves people's problems every day.³

² For a look at how schooling was almost universally provided in England in the mid-nineteenth century (when almost everyone was much poorer than people are today and there was virtually no government involvement), see West (1965/1994).

³ This section is adapted from Henderson (2012).

Using property rights to explain behaviour

Property rights are the core concept underlying most of the major intellectual contributions of the UCLA School. In particular, Alchian, Demsetz, and others emphasized how the existence and strength of private property rights affect economic behaviour.

Walter Williams (2018), a widely published author and professor who studied under Armen Alchian, stated that private property rights contain three components: (1) the owners' rights to make decisions about the uses of their own property; (2) their right to keep and dispose of their property; and (3) their right to enjoy the income, as well as bear the losses, resulting from their decisions. Alchian (1965) defines a system of property rights as a method of assigning to particular individuals the authority to select, for the goods or services owned, any use from a non-prohibited set of uses. Having a property right, therefore, means that the owner enjoys protection against other people acting against the owner's will.

Consider an example that most of us take for granted but that illuminates the point. You regularly take your nice clothing to a dry cleaner that you have come to trust. One day, you go to pick up your best shirt, which you had bought for \$100 just a few weeks earlier. Your tag says the dry cleaner has the shirt, but the employee can't find the shirt. You ask for \$100 in cash so that you can buy a new shirt. The employee refuses. What do you do? We all know the answer. You ask to speak to the manager. But why do you do that? Because the manager has more power over the decision to reimburse than the employee below her has. Chances are that the manager will give you the \$100. But what happens in the unusual case that she doesn't? You then say the magic seven words: "I need to talk to the owner." We all understand, even if only at an intuitive level, why those are the key words. But an understanding of property rights helps us move beyond intuition to a clear theoretical understanding. The reason to talk to the owner is that the owner has the most to gain by keeping his reputation intact or to lose by not being accountable to the customer. The owner is what Alchian calls the "residual value claimant." Economists have shortened the term to "residual claimant." The owner is the residual claimant because he gets all the difference between revenues and costs. This gives him an incentive to care strongly not only about current revenues and costs but also about future revenues and costs.

Alchian (1965) used this focus on property rights to explain the difference between a privately-run and a government-run enterprise. He gave the example of garbage collection. A government bureaucrat is not a residual claimant. If he inefficiently manages a municipally owned garbage collection service, he suffers no direct financial loss other than possibly being fired. But because he is a government official working for a government agency, his boss or bosses, who are also government officials, don't have a strong incentive to fire him. His and his bosses' actions would have to be so egregious that voters demand that their elected officials fire him. But this threat is likely to be much less effective than that faced by the owner of a privately-owned service who would suffer substantial and direct financial losses if the city terminated its contract for the service. And the incentive for good performance would be even stronger if garbage collection companies sold their services directly to customers. In other words, efficient performance is more likely when the property right to the rewards for efficient garbage collection is held privately rather than held collectively by a municipal government.

In *University Economics*, Alchian and co-author Willam R. Allen used property rights to explain the underpricing of tickets to the Rose Bowl. They noted that every year there is a large shortage of tickets to this event. Many people who want them at the face price can't get them. Why does that happen? At the time they wrote, the Rose Festival Association, which sold the tickets, was not privately owned. One third of the ticket receipts went to the association and one third went to each of the participating universities and their athletic conferences. But, they noted, "no person can claim any pro rata part of the proceeds as being 'his.'"

This simple fact, they noted, had huge implications. Why should the decision-makers price higher to reduce or eliminate the shortage when they don't get the gains from that action? Why not instead price low so that they can pay a lower price than otherwise for their own tickets and sell tickets to their friends and associates who are given first dibs? By doing so, they can be "invited to the best places, clubs, and circles."

If this analysis were useful only for analyzing pricing of Rose Bowl tickets, it might be only an amusing example. But, as Alchian and Allen understood, it has far more widespread implications.

Thomas W. Hazlett, a UCLA graduate who studies telecommunications markets and who was for a while the chief economist at the Federal

Communications Commission (FCC), used the “Rose Bowl” analysis to understand the behaviour of a particularly powerful Congressman, John Dingell, a Democrat from Michigan. For many years, as chairman of the House Commerce Committee, Dingell opposed auctioning off valuable electromagnetic spectrum. Instead, he wanted the FCC to give away the licenses for specific uses and for limited time periods. Why? Dingell had a lot of power over the FCC. But if the spectrum were auctioned off, the FCC’s power would be less and so, therefore, would be Dingell’s power. As Henderson put it in discussing Hazlett’s point:

When something is allocated to the highest bidder, the bidders, not the auctioneer, determine who gets it. Therefore, Dingell, who had a big oversight role over the FCC, would find his power over allocation dropping to zero also. Without that power, people wouldn’t invite him to dinners and hunting parties as frequently, would contribute less to his campaign fund, and would return his calls less quickly, if at all. In short, he would be a less important man in Washington, and probably a less wealthy one. (2001: 65)

One of the ideas that comes across loud and clear in Alchian’s writing is the idea that property rights and the whole system of incentives that go along with property rights can explain behaviour of people around the world. In a 1960 article, Alchian and co-author William H. Meckling wrote:

And the men of Kharkov and Karachi are not different from the men of Kalamazoo. The specific objects of wealth and power may differ between Kalamazoo and Kharkov. But if Kalamazoo teems with thieves and brigands while Karachi is serenely industrious, the explanation lies not in differences in goals. Differences in goals will not explain differences in the way individuals pursue those goals. (Meckling and Alchian, 1960: 55-61)

What explains the different ways people pursue goals, Meckling and Alchian pointed out, was the system of incentives, which depends on the system of property rights.

Alchian and Demsetz (1973) even applied basic property rights analysis to explain the barbaric killing of baby seals on the ice floes off Prince Edward Island. They pointed out that Canada’s government “permitted no more than 50,000 animals to be taken.” That was a set-up for a catastrophe. Each hunter knew that once the 50,000 number was reached, he couldn’t take any more. So, each hunter then had the incentive to kill as quickly as possible. They wrote:

The first 50,000 animals are offered on a first-come, first-served basis, a system that is bound to encourage rapid hunting techniques to make a condition for success the degree to which the hunter can be ruthless. (p. 20)

Neither Alchian nor other members of the School claimed that a socially beneficial system of private property rights means that people can use their property in *any* way they deem fit. In particular, their use of property should not physically infringe upon the “legitimate” rights of others to use and benefit from their property.

Consider Alchian’s example of someone who opens a restaurant near an already established restaurant. If the owner of the new restaurant pours smells and smoke into the nearby established restaurant, he violates the property rights of the owner of the established restaurant. The new restaurant’s operation reduces the ability of the incumbent restaurant owner to use his property to its maximum advantage, in this case, serving customers food in an environment free from smoke and foul smells.

But, even aside from smoke and odours, doesn’t the owner of the new restaurant harm the incumbent restaurant’s owner simply by competing for customers? Likely so, although Alchian argues that this apparent intrusion on the incumbent owner’s property right is legitimate. Although private property rights protect private property from physical interference, no immunity is implied for the commercial value of anyone’s property. No one should expect the profits or other benefits he receives from his property to be protected from other peoples’ use of their own private property when the latter usage does not physically limit the former’s use of his or her private property.

Similarly, if your use of your personal property does not physically interfere with the use or sale of our private property, a socially efficient system

of private property rights would not allow us to constrain your use of personal property simply because we find your use objectionable on moral or emotional grounds. Imagine that your neighbour strongly objects on aesthetic grounds to a lawn ornament that you placed outside your house. Should your neighbour enjoy a legal right to have your lawn ornament removed, by force if necessary? What if other neighbours actually enjoy viewing the lawn ornament on their walks past your house?

It is easy to see how objections to other peoples' behaviour based on emotional or aesthetic grounds would lead to the exhaustion of the capacity of regulators and courts to determine legal property rights. The costs to society associated with resolving disputes about property rights based on emotional or aesthetic grounds are likely to far outweigh any benefits to people who feel better off because specific uses of property, such as displaying specific types of lawn ornaments, are banned. Moreover, if specific uses of property are especially objectionable to small groups of individuals, they are free to negotiate with the property owners whose behaviour is objectionable. For example, there may be things you can do for your neighbours who object to your lawn ornaments in return for their "tolerating" those ornaments. This would be a far cheaper way of dealing with property rights disputes than invoking regulatory or legal procedures.⁴

Alchian stresses that individual property rights are supported not only by the states' power to make and enforce laws but also by the "force of etiquette, social custom and ostracism." That's why many potential disputes about specific exercises of property rights are avoided even when laws and regulations do not clearly delineate which specific uses are inconsistent with the public interest. Laws distinguishing between acceptable and unacceptable lawn ornaments are largely unnecessary because society accepts freedom of expression within wide limits as a legitimate right.

The kinds of expression people accept vary over time as social customs change. For example, health experts and others have criticized advertisements lauding specific body types, and the criticism has led many companies to change how they promote their products. No laws or regulations were required to bring about the change. The shareholders of companies affected by

⁴ For the seminal article on how private transactions can resolve disputes about property rights in an efficient manner, see Coase (1960).

the change in society's views about advertising had and have a strong financial interest in acknowledging and acting upon changes in social attitudes. This is a key point in the UCLA School's depiction of property rights. When owners of property rights bear the full, or close to full, benefits and costs of their actions, they have strong incentives to act in the social interest, whether those interests are codified in laws and regulations or in social customs. This is because the failure to do so will usually have adverse financial or other consequences.

Property rights and pollution

Demsetz (1967) was one of the first economists to explain how weak or attenuated property rights can lead to water pollution. A primary function of property rights is to guide incentives to achieve a greater internalization of what economists call externalities. When externalities are internalized, people take account of how their actions physically interfere with other people's property. To illustrate, imagine that there is a chemical plant on one side of a body of water and a fishing lodge on the other side. The chemical plant releases emissions into the water that harm the reproduction of fish, so the lodge cannot offer the same opportunities for successful fishing to its customers as it could if the chemical plant reduced its emissions. If the body of water creates the greatest economic value as a location for fishing resorts, the emissions externality is a source of economic inefficiency. The failure of the chemical plant to take account of the physical damage it imposes on the fishing resort results in an inefficient use of a scarce resource, i.e., the body of water. The externality, in turn, reflects the fact that property rights to the body of water are shared in common by the chemical plant and the fishing lodge.

As noted earlier in the discussion of a neighbour objecting to another neighbour's lawn ornament, if operating a fishing camp is the most valuable use of the body of water, the owners of the fishing camp have an incentive to negotiate with the owners of the chemical plant to get the plant to stop or reduce its emissions. At the extreme, the owners of the fishing resort might simply buy out the owners of the chemical plant and dismantle the plant. Either way, the owners of the fishing resort are either indirectly or directly converting a property right held in common into a property right effectively held by the fishing resort. The outcome is that the body of water will be dedicated to its highest-valued use. What if, on the other hand, the chemical plant's use was the highest-valued use? One might feel uncomfortable with

this result, given the effect on the lake. But even in this case, property rights help. If the chemical plant has full rights to the lake, then it has the incentive to take account of the cost of its damage, not just in the current year, but also in future years. If fishing were to become much more popular in future years, then at some point, it could make sense for the chemical plant to turn the lake over to fishing—and reap the rewards. One might worry that the lake is finished for good. But as anyone knows who followed the evolution of Lake Erie from a highly polluted lake in the 1960s to a very clean lake today, pollution is not forever.

Demsetz recognized that in some circumstances, the costs of transacting may make it uneconomical to convert commonly held property into a private property right so that externalities are “internalized.” As Demsetz puts it, the costs of transacting in the rights between the parties (internalization) may exceed the gains from internalization. In such cases, government regulations on how commonly held property can be used might improve economic efficiency if those regulations are guided by considerations of the economic value of the property in its alternative uses.

Property rights within firms

Demsetz also applied property rights analysis within firms. Large companies rely on managers to operate those organizations in the interests of the owners, who are often a relatively large number of individuals and institutional investors. Shareholders are the property right owners inasmuch as they bear the financial consequences of the decisions made by managers. Therefore, shareholders have an incentive to hire managers who have the specialized knowledge needed to operate the business efficiently. However, shareholders face relatively high costs of monitoring the actions of the managers who run the company, especially when the knowledge needed to run the company is specialized. One way to reduce the need for close monitoring of managers is for shareholders to transfer some of their ownership rights to managers.

Demsetz (1983) noted that one way to align the incentives of managers with the interests of shareholders is to grant stock options to managers or to pay them partly with shares in the company. In this way, managers are made more responsive to the interests of shareholders.

Critics have argued that rewarding managers with claims to partial ownership of the companies they manage, through stock options, creates

incentives for managers to make decisions that increase the short-run profits of those companies at the expense of long-run profits, since the latter might well be realized after current management is no longer employed. This argument assumes that stock markets overvalue short-run profits and undervalue long-run expected profits, a belief for which there is little justification. This view of the inefficiency of stock markets has led many politicians and would-be advocates of “improved” corporate governance to call for limiting or even eliminating the use of stock options as a means to compensate managers.

But Demsetz replied that owners have an incentive to make an efficient tradeoff between doing more active monitoring of managers hired to run the businesses they own and tying management compensation more closely to performance outcomes preferred by the shareholders. Regulatory limits on stock options or other forms of managerial compensation tied to corporate profitability would require owners to do more indirect managing, which would limit the specialization of roles between owners and managers. The net outcome would likely be fewer efficient and profitable companies and greater difficulty in raising financial capital to fund start-ups and help small- and medium-sized companies grow.

The differing objectives of government and private ownership

The main lesson the UCLA School taught in the context of property rights is that legal and regulatory constraints on the ownership and exercising of private property rights are likely to result in inefficient behaviour and outcomes that make society worse off. This is not to say that the School believes that a system of strong private property rights is always preferable to alternative arrangements. Whether it is preferable depends strongly on people’s objectives. Alchian (1965) acknowledged that government and private ownership often have different objectives. In particular, government ownership is focused primarily on redistributing income among individuals, while private ownership is focused on producing and distributing output efficiently. Alchian offered state parks and municipal golf courses as examples. State and local governments that own and operate them typically make them available to patrons at relatively low prices and make the facilities available on a first-come, first-served basis. As a result, willingness to pay does not play the prominent role it ordinarily does in determining who gets the good or service.

Government ownership allows cross-subsidization whereby higher-income taxpayers and non-users subsidize the consumption of lower-income people, since the costs of operating state parks and municipal golf courses are not fully covered by the low prices charged by the relevant government agencies managing those facilities. The residual costs of operating the facilities must be covered through revenues raised by taxes and fees levied on residents, many of whom do not use the facilities. Alchian was careful to note that if cross-subsidization is a more prominent social objective than efficiency, economists cannot say that government ownership of parks and golf courses is inferior to private ownership.⁵

More generally, private property rights may occasionally be costlier to enforce than the benefits of relying upon them would justify. Equivalently, the costs associated with relying on government property rights might be lower than the costs of implementing private property rights. An example is public sidewalks. In major cities, public streets for pedestrians are often extremely crowded during business hours, causing discomfort and delays for users of the streets. A private owner might charge pedestrians to use the streets with prices calibrated to deter peak levels of crowding. However, charging for street access and denying access to non-payers might be prohibitively expensive if major pedestrian thoroughfares and the streets accessing those thoroughfares were operated as privately owned pedestrian “highways.”⁶

In some circumstances, the costs of relying on private property rights to allocate access to and use of streets and roads can be small relative to the benefits of having private owners determine how the assets involved are used and maintained. An example is gated communities, where the use of streets and roads is reserved for use by members of a community association who pay dues to maintain the assets and arrange for managing the assets. Because access to the community’s infrastructure is restricted to members

⁵ An important caveat here is that some forms of cross-subsidization are likely to be more efficient than other forms. For example, government-financed education has traditionally been delivered through government-run public schools that are paid for through tax revenues. However, the use of vouchers, paid for through tax revenues and made available to low-income families, allows lower-income people to pay for their children’s education at privately owned and operated schools. Many economists believe that children from low-income families would receive a better education through a cross-subsidization system that relies on vouchers rather than through the conventional public-school system.

⁶ For an alternate view, though, see Powell (2009, May 4).

of the community association and their approved guests, it is economically feasible to govern the use of the association's assets, including streets, through private ownership. In this case, ownership is shared, much as in a public company, and the arrangement is, in effect, a private club. Usually, a board elected by the association ensures that people pay their dues and obey usage rules.

It is easy to see the advantages of having a relatively small and physically contained community of roads and related infrastructure governed by a system of communally shared private property rights with a relatively small number of owners. It is easier to make decisions about infrastructure than when government owns the infrastructure because private communal ownership avoids the need to petition, and often fight, city hall. Also, members of the community association who are unhappy with how the communally owned property is managed can sell their ownership rights, for example, by selling their houses. They can then relocate to a different gated community rather than having to move out of a city or municipality entirely.

The UCLA School's teachings on property rights are simple, yet profound. Property rights are important for how our scarce resources are used. Different assignments of property rights result in more or less efficient outcomes. Participants in private markets have a vested financial and sometimes social interest in assignments of property rights that result in efficient economic outcomes. Hence governments and regulators should tread carefully lest they intentionally or unintentionally constrain or alter private property rights in the ostensible pursuit of the "public interest."

Chapter 3

How the Profit Motive Reduces Racial and Other Discrimination

Discrimination in choosing employees by reason of race, creed, sex, beauty, or age will be more pronounced in not-for-profit firms than in business firms.

— Armen A. Alchian (2006), “Some Economics of Property,” p. 48.

Go into the London Stock Exchange... and you will see representatives of all nations gathered there for the service of mankind. There the Jew, the Mohammedan [Muslim], and the Christian deal with each other as if they were of the same religion, and give the name of infidel only to those who go bankrupt.

— Voltaire

Murray Wax, an emeritus sociology professor at Washington University in St. Louis told one of us the following story. As a young man in the late 1940s, Wax had been a member of the US Communist Party. While earning his graduate degree in the early 1950s, he applied to the city college system in Chicago for a teaching job and was hired to teach at Wright Jr. College. But just before the academic year was to begin, the City of Chicago’s superintendent of education invited him for a visit. The superintendent showed him a thick dossier that the FBI had gathered about Wax’s earlier political activities and told him that the teaching offer was withdrawn. Figuring that all the government-run colleges in the Chicago area would now be similarly off limits, Wax got a job as a freelance market researcher for two years, and then went to the Toni Company for an additional few years. Neither his clients nor, later, the Toni Company asked, or seemed to care, about his political background. Said Wax,

“I had absorbed all this Marxist teaching, but until then I hadn’t realized this paradox: The corporations didn’t care about my Communist background, but academia—which I had thought of as mine—was willing to not hire me for reasons totally unrelated to my teaching ability.”⁷

That story would not have surprised UCLA economists Armen Alchian and Harold Demsetz. The government-run city colleges of Chicago could discriminate against a high-quality applicant because no one owned the university and, therefore, no one bore a cost for this discrimination. But the ad agency was a for-profit company. If the company passed up the opportunity to hire someone who would do a good job, it wouldn’t do as well financially. By taking longer to find someone as good or by settling for someone less skilled, the company would suffer financially for its decision to discriminate, which is why the company that hired him didn’t ask him about his political background—it didn’t care enough to risk its profits.

In 1957, Gary Becker, then an economics professor at Columbia University, published a path-breaking book titled *The Economics of Discrimination*. The book’s most important message is that an employer who discriminates in hiring on the basis of race rather than on the basis of productivity gives up profits. In other words, there is a cost to discriminating. Becker was careful to note that that does not imply that there will be no discrimination. Some employers are willing to give up profits in order to exercise what Becker called their “taste for discrimination.” But his point was that discrimination is costly for those who do it and that that cost limits the amount of discrimination. The law of demand, which says that when the price of something rises people buy less of it, applies to discrimination as well.

Alchian and co-author Reuben Kessel of the University of Chicago took Becker’s insight and ran with it. In his book, Becker had noted that black people were discriminated against more frequently by monopolistic enterprises. While Becker didn’t see that fact as a puzzle, Alchian and Kessel did. In their famous 1962 article, “Competition, Monopoly and Pecuniary Gain,” they asked, “But why do monopolistic enterprises discriminate against Negroes more than do competitive enterprises?” They went on to point out that there was no good reason, or at least no reason that Becker gave, to

⁷ Phone interview with Murray Wax, August 29, 2000.

expect monopolistic enterprises to discriminate more against black people than competitive enterprises did.

Alchian and Kessel provided the missing logic. Monopolies, they noted, tend to get their monopoly power from the government. Governments often prevent other firms from competing. Public utilities are an example. But often the government, in return for granting monopoly power, regulates the profits of the monopolies. Wrote Alchian and Kessel: “Their cardinal sin is to be too profitable.”

In their article, Alchian and Kessel noted an important implication: “If regulated monopolists are able to earn more than the permissible pecuniary rate of return, then ‘inefficiency’ is a free good because the alternative to inefficiency is the same pecuniary rate of return and no ‘inefficiency.’” In other words, once regulated monopolies bump up against the profit constraint imposed on them by government, they can’t legally earn more and so they “spend” what would otherwise be the additional profits on things that can be considered consumption items. Alchian and Kessel, writing in a less politically correct era, gave a long list of these other items, a list that includes “pretty secretaries,” “lavish offices,” and “large expense accounts.”

Where does racial discrimination come in? As noted above, the cost of racial discrimination limits the amount of racial discrimination that will occur. But if the government constrains firms to earn lower profits than they could otherwise earn, racial discrimination, like inefficiency, becomes a “free good.” Therefore, we would expect to see more racial discrimination in monopolistic firms whose profits are regulated by governments.

Alchian and Kessel tested their hypothesis by analyzing a sample of 224 non-Jewish and 128 Jewish MBA students who had graduated from the Harvard Business School. The graduates were employed in 10 major industry categories. Of the 10, they wrote, the two industries with the greatest regulatory restrictions discouraging efficient production were “transportation, communication and other public utilities” and “finance, insurance and real estate.” Although 36 percent of the MBAs were Jewish, their representation in the two most heavily regulated industries was only 18 percent. The probability of this outcome happening by chance, they noted, was less than

0.0005.8 Attenuating the rights of the owners of the regulated companies to use their property to increase profits had the effect of encouraging anti-social behaviour and outcomes.

Alchian and Demsetz (1973) considered the effects of another way in which government attenuated rights of property owners: rent control. They noted that effective rent control, which is rent control that keeps rents below free-market levels, “prompts landlords to lease their apartments to persons possessing personal characteristics that landlords favor.” During World War II, rent control was common in major American cities. But tie-in sales of furniture and racial discrimination, unlike charging a free-market rent, were legal. The key word in newspaper ads to indicate that the landlord discriminated on racial grounds was “restricted.” Examining apartment-for-rent advertising in a Chicago newspaper, they reported:

[T]he percentage of apartment-for-rent advertisements specifying that the apartment was for rent only on a “restricted” basis or only if the renter purchased the furniture rose from a pre-war low of 10 percent to a wartime high of 90 percent during the period of World War II when rent control effectively created queues of prospective renters. (p. 21)

Unfortunately, they did not report what part of the 10 percent and what part of the 90 percent were in the “restricted” category versus the “furniture” category. Still, the findings in the Chicago newspaper ads were consistent with the idea that rent control had caused the cost of discriminating on racial grounds to fall. Black people could not legally compete for apartments by paying more money and so landlords, who, presumably, were disproportionately white, could satisfy their “taste for discrimination” at a much lower, or even zero, cost.

Free markets and well-defined and well-enforced property rights work especially well at breaking down discrimination when what is exchanged is goods rather than labour. In 1992, one of the authors went to San Francisco’s Candlestick Park to see the Giants play the Cincinnati Reds. To get into the

⁸ For an overview of this study and several other seminal studies on property rights by Alchian, see Henderson (2019).

baseball spirit, and despite the traditional rivalry between the two teams, he wore his blue L.A. Dodgers helmet. He was sitting in the stands when a young man came by selling hot dogs. Because the author was about 40 feet away, rather than try to shout above the din, he put up one finger for one hot dog. The young man looked at him, noticed the Dodgers helmet, pointed to his own head and shook his head as if to say, “No, I won’t sell you a hot dog because you’re a Dodgers fan.” Then he grinned and the author grinned, and he passed the hot dog down the row. Both the hot dog seller and this author knew that he would sell the hot dog. There was no way he was going to refuse to make money off even a Dodgers fan.

The story may sound trivial; no, it is trivial. But the point it makes is important. In our transactions for goods, people gain by ignoring characteristics of those they deal with in order to make money. Many intellectuals and many members of the public dismiss or even attack the profit motive. But the profit motive is a strong incentive for people to treat others well, whatever their skin color, ideology, or preferences about baseball teams.

The baseball helmet story is an amusing anecdote. But apartheid in South Africa was anything but amusing. UCLA graduate Thomas W. Hazlett tells the fascinating story in “Apartheid,” in David R. Henderson, ed., *The Concise Encyclopedia of Economics*. Hazlett notes that the conventional view of apartheid was that it was devised by affluent whites to suppress poor blacks. But the conventional view is wrong. Instead, apartheid, like the colour bar that preceded it, catered to white workers who didn’t want to have to compete with black workers. Indeed, white mine owners were among the strongest opponents of apartheid because it prevented them from hiring lower-wage, but productive, black workers. Hazlett notes that the white mine owners’ self-interest “was so powerful that it led the chamber [of mines] to finance the first lawsuits and political campaigns against segregationist legislation.”

A more recent example that illustrates the Becker and Alchian/Demsetz/Kessel point that well-defined property rights in free markets give even racist employers an incentive not to discriminate is the 2014 case of Donald Sterling. Sterling, the owner of the Los Angeles Clippers basketball team, had made racist comments to his young lover, and she had recorded them and publicized them. But you couldn’t tell that he was racist by looking at his payroll. At the time, the top three players on his payroll, all of whom were black or mixed-race, made a combined \$46 million while the payroll for the

whole 18-person roster was \$73 million. The free market disciplined Sterling not to exercise, in his employment decisions, his “taste for discrimination” (Yglesias, 2015, May 13).

The legal ability of owners of private property to use their human and physical assets to earn income, combined with competition from other owners of similar assets, creates a powerful incentive for those assets to be used efficiently. This is perhaps the most well-known argument for free markets. This is certainly a major theme underlying much of the research done by members of the UCLA School. However, a less well-known theme, but one having no less social importance, is that a system of private property rights combined with competition discourages behaviour that is morally and socially objectionable, perhaps, most notably, discrimination based on race, gender, religion, or beliefs.

Contrary to some contemporary claims that “capitalism” fosters discrimination against women and minority groups, work done by the UCLA School shows just the opposite. Namely, laws and regulations constraining the legal ability of owners of property to use their property to maximize profits, along with government-imposed barriers to competition, *promote* discrimination by reducing or sometimes eliminating the powerful role that competitive free markets can play in penalizing discrimination.

Chapter 4

When Do Property Rights Come About?

A primary function of property rights is that of guiding incentives to achieve a greater internalization of externalities. Every cost and benefit associated with social interdependencies is a potential externality. One condition is necessary to make costs and benefits externalities. The cost of a transaction in the rights between the parties (internalization) must exceed the gains from internalization.

— Harold Demsetz (1967), “Toward a Theory of Property Rights.”

In the early 1960s, the parents of one of the authors left him, his brother, and his sister a lot. Such situations, with one pre-teen (the author) and two teenagers, can lead to a lot of conflict. On one issue, the three siblings figured out how to reduce conflict to zero by defining property rights. The family had a corn popper and all three liked popcorn. But there was a problem. Even when the three agreed on who was to pop the corn and who was to wash the resulting dishes (leaving no unwashed dishes was a strict household rule), each of the three had an incentive to eat quickly out of the common popcorn bowl so that he or she would get the popcorn ahead of his or her siblings. After only a few times in which all three ate popcorn more quickly than they ideally wanted to, they devised a solution. They poured the popcorn from the corn popper in equal amounts into three bowls. Then each had a bowl that was his or hers and each could take his/her sweet time eating. Problem solved. Tragedy of the commons averted. Harold Demsetz would have been proud.

When and why do property rights come about? It’s an important question but it was relatively unstudied by economists before the UCLA School

got its hands on the issue. A pathbreaking article that gave an answer was Harold Demsetz's 1967 "Toward a Theory of Property Rights" published in the *American Economic Review*.

Although economists are known to make unjustified fun of anthropologists, Demsetz took them seriously and read their literature. The specific area Demsetz studied was the development of property rights, or the lack of their development, among Aboriginal Canadians and native Americans. Anthropologist Frank G. Speck, wrote Demsetz, had "discovered that the Indians of the Labrador Peninsula had a long-established tradition of property in land." The Speck article that Demsetz cited had been published way back in 1915. His finding was at odds with what anthropologists knew about Indians in the American Southwest. Anthropologist Eleanor Leacock, noting that difference, inquired further into the situation of the Labrador Indians and wrote up her findings in 1954. According to Demsetz, "Leacock clearly established the fact that a close relationship existed, both historically and geographically, between the development of private rights in land and the development of the commercial fur trade" (1967: 351).

Reading Leacock's article gave Demsetz his "aha" moment. He noted that although the factual basis of the correlation was solid, no theory that he knew of had related private property in land to the fact of the fur trade. But to Demsetz it seemed obvious. And in laying out his insight, Demsetz made a further contribution: he analyzed the tragedy of commons a full year and a half before the famous *Science* article, "The Tragedy of the Commons," by biologist Garrett Hardin. The Hardin article had introduced the concept of the tragedy of the commons. The core idea is that if a commons, that is, an area that no one owns, is unmanaged, people will overuse it. If, for example, no one owns land on which cattle graze, and no one manages the land, cattle owners will overgraze the land and reduce its value. The Hardin article is one of the most-cited *Science* articles ever.

In his version of the idea published earlier in relation to the fur trade, Demsetz wrote:

Because of the lack of control over hunting by others, it is in no person's interest to invest in increasing or maintaining the stock of game. Overly intensive hunting takes place. Thus a successful hunt is viewed as imposing external costs on subsequent hunters—costs

that are not taken into account fully in the determination of the extent of hunting and of animal husbandry. (p. 351)

Later in his article, Demsetz wrote:

It will be best to begin by considering a particularly useful example that focuses our attention on the problem of land ownership. Suppose that land is communally owned. Every person has the right to hunt, till, or mine the land. This form of ownership fails to concentrate the cost associated with any person's exercise of his communal right on that person. If a person seeks to maximize the value of his communal rights, he will tend to overhunt and overwork the land because some of the costs of his doing so are borne by others. The stock of game and the richness of the soil will be diminished too quickly. It is conceivable that those who own these rights, i.e., every member of the community, can agree to curtail the rate at which they work the lands if negotiating and policing costs are zero. Each can agree to abridge his rights. It is obvious that the costs of reaching such an agreement will not be zero. What is not obvious is just how large these costs may be. (1967: 354)

Notice how this anticipates Hardin's later article in *Science*.

Demsetz wrote, "The geographical or distributional evidence collected by Leacock indicates an unmistakable correlation between early centers of fur trade and the oldest and most complete development of the private hunting territory" (p. 352).

Tribes agreed to hunt in their own well-defined areas. Since furry animals aren't migratory, the agreed-upon territorial rights had value. Conversely, grazing animals in the Southwest wandered all over the land, so territorial rights there didn't have as much value. Put differently, in the Southwest, the costs of enclosing grazing animals in a specific geographical area were prohibitively high. Recall that this was many decades before the post-Civil War invention of barbed wire. The lower costs of husbanding fur-bearing forest animals together with the higher commercial value of fur-bearing animals made it productive to establish private hunting lands.

Demsetz summed up the situation of the American Southwest:

Hence both the value and cost of establishing private hunting lands in the Southwest are such that we would expect little development along these lines. The externality was just not worth taking into account. (p. 353)

What is particularly interesting in the hunting example is that the property rights arrangement in Quebec that Demsetz cited arose voluntarily in response to circumstances that made the arrangement efficient. Property rights did *not* come about by government fiat. In furthering their economic interests, people typically choose the property rights regime that best promotes their economic interests.

Interesting also is the fact that Demsetz didn't have the attitude that many people had about American and Canadian First Nations people, namely, that their culture was such a sharing culture that they didn't need or value private property. He noted one clear finding of the anthropological literature that showed the importance of private property in items that were easily claimed and easily protected. He wrote:

Among wandering primitive peoples, the cost of policing property is relatively low for highly portable objects. The owning family can protect such objects while carrying on its daily activities. If these objects are also very useful, property rights should appear frequently, so as to internalize the benefits and costs of their use. It is generally true among most primitive communities that weapons and household utensils, such as pottery, are regarded as private property. Both types of articles are portable and both require an investment of time to produce. (p. 353)

Chapter 5

Firms Exist to Solve Problems

It is common to see the firm characterized by the power to settle issues by fiat, by authority, or by disciplinary action superior to that available in the conventional market. This is delusion. The firm does not own all its inputs. It has no power of fiat, no authority, no disciplinary action any different in the slightest degree from ordinary market contracting between any two people. I can “punish” you only by withholding future business or by seeking redress in the courts for any failure to honor our exchange agreement. That is exactly all that any employer can do. He can fire or sue, just as I can fire my grocer by stopping purchases from him or sue him for delivering faulty products.

— Armen A. Alchian and Harold Demsetz (1972), “Production, Information Costs, and Economic Organization.”

Efficient production with heterogeneous resources is a result not of having better resources but of knowing more accurately the relative productive performances of those resources.

— Armen A. Alchian and Harold Demsetz (1972), “Production, Information Costs, and Economic Organization.”

Economists have long been interested in the following issue: why are some types of economic activity carried out within individual organizations, while other types of economic activity are carried out through market exchanges between independent organizations or individuals.⁹ The obvious answer is that if it is more efficient to carry out transactions within the boundaries of a single organization it will be done that way, and when it is not, transactions

⁹ Perhaps the seminal article addressing this issue is Coase (1937).

will be carried out between independent economic agents. But *why* are some transactions carried out more efficiently within organizations than between organizations? It also raises a related question: why do organizations take different forms? For example, why are so many law firms and accounting firms organized as partnerships or limited liability companies while others are organized as corporations with publicly traded stocks? And why does organizational form matter?

Alchian and Demsetz (1972) provided critical insights on these questions. They viewed organizations like the corporation as a vehicle to elicit specialized and cooperative production, and they identified two key demands that are placed on economic organizations: metering the productivity of inputs and rewarding those inputs. Metering productivity means measuring the contributions that various inputs make to the organization's output. The ideal way to reward inputs is to make the rewards commensurate with their contribution to output, in other words, their productivity. If the economic organization does these tasks poorly, with rewards and productivity only loosely correlated, the organization's productivity will be lower than otherwise, but if the organization does it well, productivity will be higher. They then went on to describe what makes those two tasks difficult and how organizations evolve to handle these problems.

For Alchian and Demsetz, metering costs are associated with cooperative activity involving individuals working as a team while doing specialized tasks. In such circumstances, identifying the outputs due to each individual is difficult. Imagine that you are working with classmates or colleagues to produce a report on a topic. You divide the writing of the report into chapters and each member of the team is assigned a chapter. So far, so good, because you can judge the quality of each person's chapter and reward accordingly. However, there's a fly in the ointment. You spend several days up front brainstorming about the topics to be covered, the presentation style, the length of the presentation, the intended date of completion, and so forth. While the quality and timeliness of each person's chapter is relatively easy to identify, measuring each individual's contributions to the brainstorming is much more difficult.

As a professor of economics and business, one of us typically assigned research papers to small groups of students. Each group had to brainstorm, and each member of a group received the same grade. That meant that the

team's final output was metered but not the output of each individual team member. The concern that almost immediately arose among the students was the problem of how to prevent individual members from shirking or doing less while counting on other members to do more to compensate. Each group had to figure out on its own how to solve that problem. Most groups appointed a leader who would coordinate the activities of the group's members. Since the students formed a cohort that took classes over a two-year period, they learned about each other's particular skills, including management skills. Part of the leader's responsibility was to monitor shirking. The obvious challenge for the group leader was that shirkers could not be thrown off the team and receive a failing grade. However, leaders (and other team members) compared notes with classmates on other teams about who seemed to be shirking on a particular project. Students who were shirkers on a project tended not to be invited to join teams of non-shirkers on future projects. This meant that shirkers were ultimately penalized for their behaviour by being excluded from the more productive teams on future projects.

While imperfect, the arrangement described above was arguably the least costly method of detecting and discouraging shirking for the team production of research papers. The students knew each other's strengths and weaknesses better than the professor did and, as noted, shirkers could be excluded from future projects. Of course, the group leader received no direct reward for coordinating the group's activities. Nor could the leader dismiss shirkers from the group, as also noted above. This obviously weakened the group leader's incentive to detect and discourage shirking, especially if it meant creating conflict with other students who would be part of an ongoing cohort. The arrangement did not eliminate shirking, but other arrangements were likely to be burdensome and costly beyond any benefits they would provide.

In what Alchian and Demsetz called the "Classical Firm," the monitor (or leader) designated to meter the performance of team members has more authority and stronger incentives than the group leaders for the above professor's student research papers. In particular, the monitor in the classical firm is what Alchian and Demsetz refer to as a "residual claimant." The "residual" is essentially the profit that remains after all members of the team are paid an amount commensurate with what the monitor deems to be each member's contribution. The right to claim the residual provides the incentive for the

monitor to identify and discourage shirking.¹⁰ Team members presumably wish to maximize the team's productivity, thereby increasing the payment they will collectively (and individually) receive. They therefore agree to the monitor's status as a residual claimant, as well as the monitor's right to alter team membership by, for example, dismissing shirkers. At the same time, the monitor has an incentive to reward team members commensurate with their contributions to team output, since such behaviour is consistent with maximizing productivity and the profits of the firm. Imagine, for example, that the monitor was perceived to pay team members on the basis of a criterion that was not closely related to the efforts made by individual members of the team. In this case, non-shirkers would think they were being treated unfairly, while shirkers would feel emboldened to continue or increase their shirking. The result would be a continuous decline in productivity and in the firm's profitability, an outcome that is not in the interests of the monitor.

Alchian and Demsetz's Classical Firm is the quintessential small business in which the senior manager is also the majority or sole owner of the business. In fact, while the majority of business organizations in developed countries are relatively small, the majority of output (as measured by revenues) is produced by large, publicly traded companies that have hundreds, if not thousands, of managers and many thousands of shareholders. This organizational form has come in for much criticism from some economists because of what is known as the "principal-agent" problem. Put succinctly, in a widely held public company, there are many residual claimants, i.e., shareholders. If no shareholder owns a large percent of the company, then no shareholder has a strong incentive to monitor the company's managers. As a consequence, the managers have a strong incentive to shirk. Shirking can mean literally not performing the tasks expected, but it more often refers to managers spending company money on products and activities, such as fancy restaurant meals and first-class travel, that make the manager's work life more pleasant but detract from the company's profits. In this case, the interests and actions of the agents (the managers) conflict with the interests of the principals (the shareholders).

¹⁰ The right of the residual claimant to sell the business at some point in the future strengthens the claimant's incentive to build a team of non-shirkers that is likely to be increasingly productive over time, thereby increasing the capitalized value of the firm.

Critics of large companies invoke the principal-agent problem when arguing that large companies are inefficient, and that the economy would be better off if governments limited the size of large companies.¹¹ Demsetz (1983) identified the separation between ownership and managerial control as the key focus for most commentators on the modern corporation. He acknowledged the reality of monitoring costs and the likelihood of shirking in large companies. However, he pointed out that both external and internal forces act to limit the costs of monitoring. Owners that tolerate shirking by their managers effectively accept less efficient production within their companies, which raises the costs of their products to consumers. Conversely, owners that engage in extensive monitoring incur costs that make their investments less profitable. A “happy medium” presumably exists. In this happy medium, the sum of the costs of monitoring plus shirking is minimized. Competition among companies will lead them towards the adoption of the happy medium.

The search for this optimum will lead for-profit firms to adapt their structure. For example, if more monitoring of management promises to lower overall costs and improve the firm’s competitiveness, one should expect to see ownership concentrated in a smaller number of shareholders. As Alchian (1965) argued, shareholders who are passive or indifferent to managerial problems will sell their shares to owners who are willing and able to be more active. This development would reduce shareholders’ incentives to shirk the monitoring duty that falls to owners, since the benefits of closer monitoring are more closely tied to the efforts of owners who do more monitoring. On the other hand, if the opportunities for managers to shirk are less abundant than initially anticipated, less monitoring by owners will improve efficiency. Companies in this situation will be characterized by more dispersed shareholding, which might allow those companies to raise financial capital at a lower cost than would otherwise be the case.

Concentrated ownership has also emerged as a relatively efficient organizational form in service activities such as law firms and engineering firms primarily because the arrangement minimizes the combined costs of monitoring and shirking. Alchian and Demsetz pointed out that in certain types of activities where specialized expertise is the main input to the production

¹¹ An early and seminal critique of large companies on the basis of the principal-agent problem is found in Berle and Means (1932).

process, as is arguably the case for legal services, monitoring costs can be prohibitively high for owners who do not have the specialized expertise in question. In these cases, organizations are frequently structured as limited partnerships, whereby a substantial proportion of the professionals who work in the organization are also owners of the organization. As owners, the limited partners have an incentive to monitor shirking by the professionals working for the organization. They also have the expertise to identify shirking better than would be done by outside shareholders.

Other variations on the principal-agent problem also influence how firms are organized, and the UCLA School has made important contributions to our understanding of these as well. Two important concepts here are moral hazard and opportunistic behaviour. Moral hazard refers to a condition whereby changes in circumstances create incentives for people to act in antisocial ways. For example, if the government increases unemployment insurance benefits relative to wages, or increases the duration of unemployment benefits, some recipients will get pickier about the jobs they accept and, therefore, will remain unemployed longer. The increased benefits and/or duration of benefits make unemployment a more attractive option than it was before, so that taking a longer time to accept new employment is obviously in the best interests of those receiving the unemployment benefits but not in the best interests of the rest of society. Opportunistic behaviour can be seen as a corollary to moral hazard. If circumstances change so that specific parties to an agreement can enjoy certain opportunities that they did not have under prior circumstances, they might have an incentive to formally or informally renege on the original agreement.

Imagine, for example, that a group of investors agrees to construct an oil refinery near a pipeline that is owned by a third party. The pipeline promises the investors very attractive rates to transport refined oil products to the markets for those products. Once the refinery is built, however, it is effectively a hostage to the owners of the pipeline if the only other options to bring their product to market, such as trucks or rail, cost much more. The owners of the pipeline, therefore, have an incentive to renege on the earlier agreement and charge the refinery owners a higher price for transporting the refinery's products.

To be sure, the original investors in the refinery would be aware of the risk that the pipeline owners will act opportunistically once the refinery

is built. Moreover, the owners of the pipeline have an incentive to advance a credible commitment to the potential refinery owners that they will not act opportunistically once the refinery is built. Put simply, both parties stand to benefit from the refinery being built and, therefore, both parties have an incentive to address the moral hazard and the resulting potential for opportunistic behaviour that each party should anticipate prior to any commitment being made to construct the refinery.

Alchian and Woodward (1987) considered situations similar to the refinery-pipeline scenario as examples of problems that organizations face in assembling productive teams where there is long-run value in keeping the team together in the presence of moral hazard and opportunistic behaviour. In this context, the refinery and the pipeline can be thought of as a team to produce and deliver refined petroleum products. Alchian and Woodward sensibly argued that any owner of capital, whether that capital is a physical asset or human knowledge, that foresees its capital asset becoming dependent on the services of other members of a team will seek protection against expropriation, their term for opportunism. One form of protection is common ownership of the dependent assets. In our example, the refinery and the pipeline would agree to merge into a single company or, alternatively, the pipeline company could build and own the refinery as part of a vertically integrated company.

The UCLA School was not unique in recognizing the risks that asset-specific interdependence poses to the formation and sustainability of productive teams and how the range of activities carried out by any organization will partly reflect those risks. Nevertheless, it made a number of unique and important contributions to the theory and practice of antitrust policy.¹² The relevance of ownership integration to address the risks of asset-specific integration is one notable example. The use of restrictive long-term contracts to protect long-lived resources that rely on the continuing service of a unique resource is another. These and other initiatives, which can promote improved efficiency, have been occasionally challenged by government officials charged with protecting the competitiveness of markets.

¹² Oliver Williamson, not a member of the UCLA School, won the Nobel Prize in Economics in 2009 for his work on how the structure and governance features of organizations are influenced by risks of opportunism, as well as on the factors that give rise to those risks. For overviews of his seminal work on this topic, see Williamson (1973 and 1975).

The essence of the School's theory of the firm is similar in spirit to its description of the market system. Specifically, there are real-world costs to engaging in transactions, whether between independent transactors or within individual organizations. This means that any public policy evaluation of how efficiently any set of transactions is being carried out needs to recognize that alternative arrangements will also bear such costs, and that competition combined with private ownership is a powerful process to ensure that the transactions in question are typically carried out in the least costly ways possible.

Chapter 6

The Nirvana Approach

The view that now pervades much public policy economics implicitly presents the relevant choice as between an ideal norm and an existing “imperfect” institutional arrangement. This *nirvana* approach differs considerably from a *comparative institution* approach in which the relevant choice is between alternative real institutional arrangements.

The nirvana approach is much more susceptible than is the comparative institution approach to three logical fallacies—*the grass is always greener fallacy*, *the fallacy of the free lunch*, and *the people could be different fallacy*.

— Harold Demsetz (1969), “Information and Efficiency: Another Viewpoint.”

In the now-famous article quoted above, Harold Demsetz, then back at the University of Chicago after his earlier time at UCLA, presented the “nirvana approach” and contrasted it with the “comparative institution” approach. His term “the nirvana approach” has become famous and most economists who discuss it currently refer to it as the “nirvana fallacy.” The latter term has become so well known that it has earned its own entry in Wikipedia. (Wikipedia even got it right.)

In his 1969 article laying out the problem with the nirvana approach, Demsetz criticized at length a 1962 publication by Kenneth Arrow, who later won the Nobel Prize in economics. Arrow had argued that a free-enterprise economy would underinvest in invention. Arrow then stated the conclusion that he thought followed:

The previous discussion leads to the conclusion that for optimal allocation to invention it would be necessary for the government

or some other agency not governed by profit-and-loss criteria to finance research and invention. (Demsetz, 1969).

After quoting that statement, Demsetz pointed out the key problem: Arrow didn't carefully examine how "the government or some other agency" would solve the problem. He just *assumed* that it would.

Here's how Demsetz put it:

Whether the free enterprise solution can be improved upon by the substitution of the government or other nonprofit institutions in the financing of research cannot be ascertained solely by examining the free enterprise solution. (1969: 2).

That is like a judge in a figure skating contest between two contestants seeing the first contestant's performance and then, on that basis alone, awarding the prize to the (unseen) second contestant.

This, Demsetz noted, is "the grass is always greener" fallacy. We can't know whether the grass on the other side of the fence is greener without examining it. Demsetz did acknowledge that in the last few paragraphs of his paper, Arrow "does discuss some problems in substituting the government for the market." But, Demsetz noted, this does not lead Arrow "to reconsider his allegation of inefficiency in the market."

The free lunch fallacy

That takes us to Demsetz's major point: We can't say that a situation is inefficient if the other likely alternatives to it are not more efficient and could be less efficient. It's a matter for comparison: thus, his term for his preferred approach is "comparative institutions." The question Demsetz always asks is: What institutions get us closest to the desirable outcome?

Demsetz dug further into the Arrow paper, probably, we suspect, because Arrow was already a giant in the field of economics, but mainly, we also suspect, because Arrow was such a clear writer who, in one paper, displayed all the elements of the nirvana approach.

Arrow argued that for private enterprise to yield optimal invention, there must be "commodity-options" so that inventors can redirect risk to other

people who are willing to bear it.¹³ Arrow wrote that a commodity-option is a contract “in which buyers pay an agreed sum and sellers agree to deliver prescribed quantities of a given commodity *if* a certain state of nature prevails and nothing if that state of nature does not occur” (italics in original). Arrow argued that “the real economic system does not possess markets for commodity-options” (1962: 610-611). Demsetz took issue, noting that commodity-options did exist. Imagine how much stronger Demsetz’s empirical case would have been if he had written it in 1974, just after the Chicago Board Options Exchange had come into existence in 1973: commodity options are traded on that exchange. But Demsetz noted an important reason that they didn’t exist as fully as Arrow would have liked: the cost of creating them. Demsetz wrote:

Arrow here has slipped into the fallacy of the free lunch. The word “non-optimal” is misleading and ambiguous. Does it mean that free enterprise can be improved upon? Let me suppose that the cost of marketing commodity options exceeds the gain from adjustment to risk. This would account for their presumed absence. Can it be said that free enterprise results in a nonoptimal adjustment to risk? To make this assertion is to deny that scarcity is relevant to optimality, a strange position for an economist. In suggesting that free enterprise generates incomplete adjustments to risk, the nirvana approach, by comparing these adjustments with the ideal, is led further to equate incomplete to nonoptimal. This would be correct only if commodity-options or other ways of adjusting to risk are free. In this way, the nirvana approach relies on an implicit assumption of nonscarcity, but since risk shifting or risk reduction cannot generally be accomplished freely the demonstration of nonoptimality is false. (1969: 3-4)

In short, the fact that many commodity-options do not exist is, far from being a market failure, a market success. Markets weed out goods and services whose costs exceed their value.

¹³ The idea here is that because not all people have the same attitude to risk, it makes sense for those who are more risk averse to pay less risk averse people for bearing risk. Commodity-options achieve that transfer of risk.

Even if there were commodity-options, argued Arrow, the free market would still underinvest in information. Arrow gave two reasons: risk aversion and moral hazard.

The “people could be different” fallacy

Demsetz pointed out the “people could be different” fallacy in each. If people are risk averse, noted Demsetz, then “the taste for risk reduction must be incorporated into the concept of efficiency.” Risk is something that people, all else equal, would like to avoid.

Moral hazard, a term from insurance, refers to the fact that when people are insured against a bad outcome, they make less effort than otherwise to avoid that bad outcome. When moral hazard arises in insurance markets, argued Arrow, insurance is “incomplete.” Certain things are left uninsured.

Demsetz didn’t challenge the fact of moral hazard—it is a well-known problem. What he pointed out, though, is that moral hazard is a cost of providing insurance and therefore should be treated like any other cost. Moral hazard, he wrote, “is not different from the cost that arises from the tendency of men to shirk when their employer is not watching them” (1969: 7). He also compared the moral hazard problem to the problem posed by the cost of mining iron ore:

Some iron ore is left unearthed because it is too costly to bring to the surface. But we do not claim ore mining is inefficient merely because mining is not “complete.” Some risks are left uninsured because the cost of moral hazard is too great and this may mean that self-insurance is economic.

Arrow has fallen prey once again to the “free lunch fallacy.”

Of course, Arrow could point correctly to the fact that if insurance did not tempt people to underinvest in care, there would not be a problem. But then, noted Demsetz, Arrow’s reasoning would be committing the “people could be different fallacy.”

Demsetz did not dogmatically argue that free markets are necessarily preferable to some degree of government intervention. What he did do, though, was practice what he preached. Because Demsetz advocated a “comparative institutions” approach, he proceeded to compare institutions.

Consider, for example, attitudes to risk. Demsetz wrote:

The psychological propensity to be risk averse, if it is present, is found in employees of government as well as in employees of private enterprise, and a government probably is averse to political risks. (1969: 9)

Moreover, Demsetz noted, government officials are often much *more* risk-averse than are businesses in the private sector. He pointed out that creating a better postal service “seems to be technologically possible and economically promising.” But because politicians are “very averse to the risk of being voted out of office” they hold back on improvements that might lead to layoffs of postal employees.

The nirvana approach in real life

Demsetz’s work probably shifted the economics profession somewhat in the direction of humility when it came to advocating government policy. Consider, for example, Joseph Stiglitz, who was co-winner of the Nobel Prize in economics in 2001. Stiglitz is far from a member of the UCLA School. Stiglitz often advocates government intervention to “solve” market failures. But a careful reading of his 1988 textbook *Economics of the Public Sector* shows that even he at least grappled with the problem of inducing government institutions to carry out efficient policies rather than politically popular policies or policies driven by interest groups. For example, after noting that most of the benefits of federal rice subsidies go to rich rice farmers, he pointed out that a more efficient policy to help rice farmers would be simply to give each rice farmer a fixed sum that does not depend on the amount of rice the farmer grows. Although Stiglitz did not elaborate on why this would be a more efficient policy, economists know the argument well. Such a policy would end the artificial incentive to grow more rice. The problem with a straightforward subsidy, noted Stiglitz, is a political problem: such grants “would expose the true distributive implications of the program, that is, that most of the benefits accrue not to the poor rice farmers, but to the rich” (Stiglitz, 1988: 167). In other words, the political system purposely hides the facts about who benefits. It should be noted, though, that even though a fixed sum payment to each rice farmer is more efficient than the system that Stiglitz criticized, it is

less efficient than the policy of not subsidizing rice farmers at all. The fixed payment would require taxes and all taxes that are used in the United States today distort people's consumption and or production decisions and, thus, create an inefficiency that economists call deadweight loss. Moreover, Stiglitz did not address why the subsidies exist in the first place. The fact that they exist or, at least, did exist when he wrote, is itself evidence of the inefficiency of the government sector.

In another section of his book, Stiglitz also showed evidence that he understood the problem with the nirvana approach. In discussing natural monopoly, he noted a policy that economists have advocated for about a century: have the government “provide a subsidy and insist that the firm charge a price equal to marginal cost.” He continued:

Such a policy is sometimes referred to as “first-best.” It ignores, however, the question of how the revenues required to pay the subsidy are to be raised; it assumes, in particular, that there are no distortions associated with raising this revenue. Moreover, it assumes that the government knows the magnitude of the subsidy that will enable the firm to be viable (Stiglitz, 1988: 185)

Later Stiglitz stated:

[T]he political mechanism is a far from perfect means for allocating resources, since it is subject to manipulation by special-interest groups. Further, any regulations and rules devised in the public sector have to be enforced by a bureaucracy with all of the limitations noted earlier. (Stiglitz, 1988: 220)

Unfortunately, economists today still engage in the nirvana approach. Consider an example of market failure in one of the popular textbooks in public finance, the 9th edition of Harvey S. Rosen and Ted Gayer's *Public Finance*. Rosen and Gayer write:

In reality, markets for certain commodities may fail to emerge. Consider, for instance, insurance, a very important commodity in a world of uncertainty. Despite the existence of firms such as

Aetna and Allstate, there are certain events for which insurance simply cannot be purchased on the private market. For example, suppose you want to purchase insurance against the possibility of becoming poor. Would a firm in a competitive market ever find it profitable to supply “poverty insurance”? The answer is no, because if you purchased such insurance, you might decide not to work very hard. To discourage such behavior, the insurance firm would have to monitor your behavior to determine whether your low income was due to bad luck or goofing off. However, to perform such monitoring would be very difficult or impossible. Hence, there is no market for poverty insurance—it simply cannot be purchased. (Rosen and Gayer, 2010)

Notice the similarity between their argument and the one Arrow made almost half a century earlier. Rosen and Gayer, like many economists, have failed to check their nirvana approach.

More recently, economist Mark Thoma used the nirvana approach when he wrote:

All participants must also have perfect information about the market. If the buyer does not know the exact quality of art, wine, or health care services, if a home-buyer is unaware of a big problem with a house, if a seller misrepresents the quality of a good (a fake watch instead of a real one, or a tipped scale), if a service provider does not have the credentials that are claimed, and so on, then the market will be distorted – people will pay more than they would have if they had been informed.

Despite free market rhetoric, we want government to intervene to ensure that weights and measures are accurate, there is no fraud, people are truthful about their credentials, and known defects in a product are disclosed to buyers. In some cases, as with wine or art quality, there is little government can do beyond ensuring that that the type of grape or the artist is accurately represented,

etc., but when government can intervene and prevent information problems, it improves market outcomes. (2015, June 30)¹⁴

Thoma's writing above is one of the purest recent examples of the nirvana approach. Notice his extreme assumption in the first paragraph: all market participants must have *perfect* information. Notice also that in his solution, Thoma doesn't say *how* the government will effectively prevent information problems. Government is just *assumed* to work well. Thoma even asserts that we want the government to ensure that there is *no* fraud. That wish is extremely unrealistic.

Private enterprise and conditions of imperfect information

While Demsetz used knowledge creation to illustrate his argument, the more general point is that criticizing private enterprise because it functions under conditions of imperfect information and resulting transaction costs is nothing more than wishing away facts of life. Alchian (1969) developed this point further in a discussion of unemployment. The existence of unemployed labour, he argued, is not necessarily a failure of private enterprise. Alchian highlighted the relevance of the costs of gathering and disseminating information. In the case of labour markets, it is costly for jobseekers to obtain information about their best opportunities. Timely information about pay, working conditions, and the durations of available jobs, noted Alchian, does not come cheap. It requires searching, and searching takes time and effort. A worker often faces a choice between staying employed full time while searching for a job in his spare time and quitting the job to search full time. In many cases, trying to gather job market information can be more drawn out if one stays employed full-time. This is particularly so if one's wages are reduced because, say, his or her employer is having economic problems. A lower wage means the opportunity cost of engaging in a full-time job search is reduced.

More generally, Alchian argued that seemingly unemployed assets such as vacant apartments or unsold cars sitting on used car lots do not indicate malfunctioning markets. Unemployed assets can be part of a seller's inventory which, in turn, reduces the costs of information to potential buyers. An alternative to holding inventory is to change prices on a minute-by-minute

¹⁴ The authors thank Matt Gilliland for this example.

basis to ensure that, say, landlords never have any apartments at any time that do not have tenants. Would this make prospective renters better off? Not necessarily. In addition to having to search for information about the availability of rental apartments, prospective renters would have to continuously inform themselves about changes in supply and demand conditions in the rental housing markets in which they are interested in order to try to forecast rental prices. Most prospective renters would find the costs of becoming a fully informed real estate specialist prohibitive and, as a result, landlords would find themselves with fewer prospective renters. Holding inventories that generate no direct income is a cost to sellers that ultimately will be shared with those who rent or buy the items in inventory. However, customers might well prefer paying a higher rental or purchase price in order to invest less in needed information and expertise about market conditions. If so, then unemployed assets may well indicate market success rather than market failure.

It is worth summarizing the main points of this chapter. The UCLA School does not argue that private markets are perfectly efficient. Rather, it argues that it is inappropriate to measure the performance of private markets against some unattainable standard of perfection. Public policy should be guided by realistic alternatives.

Chapter 7

Does the High Market Share of a Few Companies Imply Market Power?

I do not suggest that we abandon the search for private conspiracy, but I do think that it is time to pay much less attention to the structure of industry and virtually no attention to the notion of nongovernmental barriers to entry. A commitment to the machinery of competitive organization requires that we generally accept the consequences of effective competition. For antitrust, this means that market share and profits can be expected to shift in favor of successful rivals.

— Harold Demsetz (1989), “Two Systems of Belief About Monopoly,” p. 110.

Governments in countries with advanced economies typically have laws ostensibly designed to prevent anti-competitive behaviour by private sector businesses, and also have agencies to enforce the relevant legislation. These laws are generally referred to, especially in the United States, as antitrust laws.

In Canada, the federal government’s Competition Bureau investigates potentially anti-competitive business behaviour and determines whether a case against the behaviour should be brought before the competition tribunal. The latter is an administrative body consisting of a judge and lay experts who hear and decide cases brought by the Competition Bureau.

In the United States, the two main pieces of antitrust legislation are the Sherman Act and the Robinson-Patman Act. The Federal Trade Commission (FTC) and the US Department of Justice (DOJ) enforce federal antitrust laws.

State attorneys-general may also bring federal antitrust suits on behalf of individuals residing within their states or on behalf of the state as a purchaser. Private suitors can also bring antitrust suits. Indeed, law and economics scholar Fred McChesney points out that for every antitrust suit brought by government, private plaintiffs bring ten (McChesney, 2008).

Structure, conduct, and performance

For many decades, the “Structure-Conduct-Performance” (SCP) paradigm¹⁵ dominated antitrust theory and practice. The SCP paradigm basically maintained that if a relatively small number of firms has a large market share, those firms will refrain from competing with each other, particularly with respect to reducing their prices. As a consequence, consumers will pay higher prices and producers will earn higher profits than would be the case if a larger number of firms each had a relatively smaller market share.

The structure of a market in the SCP paradigm was identified by its concentration ratio. The latter is basically a measure of the share of a product or geographic market that is accounted for by the largest firms in that market. Thus, the 4- and 8-firm concentration ratios are the percentage of total revenues earned by all firms producing a specific product or selling their product in a specific location that is accounted for by the 4 and 8 largest firms, respectively.¹⁶ General rules of thumb were used to identify when concentration ratios were “too high.” If they were too high, went the argument, antitrust authorities should prevent additional mergers or acquisitions and should monitor specific business practices that might be anti-competitive.¹⁷ The empirical justification for relying on the SCP paradigm was the statistical observation that profitability in various industries was positively correlated with the industries’ concentration ratios. This led many economists to conclude, without much other evidence, that firms in relatively concentrated markets were likely charging consumers above-competitive prices and reaping “unjustifiably” high profits as a result.

¹⁵ For an overview of this paradigm, see Bain (1968).

¹⁶ A more detailed measure of concentration (the Herfindahl Index) takes into account the market shares of all firms in a market.

¹⁷ A merger occurs when two organizations agree to combine into a single entity. In the case of an acquisition, one organization buys the other organization.

But Demsetz had a different idea. In *A Conversation with Harold Demsetz*, a 2008 interview with UCLA law professor Mark Grady, Demsetz tells of something he heard at the University of Chicago that led him to work he did at UCLA. Someone at the University of Chicago's Quadrangle Club had asserted that the only company making money in the auto industry was General Motors. At the time, GM was by far the largest auto company in the United States. And if the assertion were true, reasoned Demsetz, then the large profits in concentrated industries would be due not to concentration per se but to better performance by the larger firms.

Demsetz decided to delve into this idea by systematically looking at data on profits of large firms in concentrated industries. The result was his 1973 article, "Industry Structure, Market Rivalry and Public Policy." The article suggests that the relationship between profits and larger firms runs in the opposite direction. Under competitive market conditions, he argues, specific firms might develop differential advantages due to innovations that either lower their costs or give their products advantages over other products. Lower costs will lead directly to higher profits for those innovating firms. Superior products would allow innovating firms to charge higher prices than their competitors, which, in turn, would increase the former's profits given that average costs do not increase commensurately. At the same time, the competitive advantages of innovative firms will contribute to increased market concentration as those firms take away market share from their less efficient competitors. In his research paper, Demsetz provided empirical evidence that higher price-cost margins reflect superior efficiency which, in turn, is linked to resulting increased market concentration.

Large firms may also enjoy a competitive advantage over small or medium-sized firms because of economies of scale. These exist when the cost per unit for producing any product declines as a larger number of units is produced. Economies of scale are linked to a number of potential phenomena including increased specialization and learning-by-doing. Increased specialization involves dedicating labour and physical capital to specific tasks, which reduces downtime and other inefficiencies as capital equipment and labour do not need to be relocated or re-tooled to perform alternative tasks. Learning-by-doing refers to efficiency improvements that arise as workers learn through

repeated experience how to perform specific tasks more efficiently.¹⁸ Both economies of scale and learning-by-doing can help explain Demsetz's (1973) empirical findings that large firms in concentrated industries have lower costs than medium and small firms in those industries, while large firms do not have a cost advantage in unconcentrated industries. Large size alone does not give an advantage to companies in a particular industry. If the large size is *not* due to economies of scale or learning-by-doing, the large company has no advantage. Indeed, if the large company has higher costs than small companies, its size will fall because it will lose market share to smaller, more-efficient firms.

The SCP paradigm could be a two-way phenomenon. That is, increased concentration could lead to higher prices associated with limited competition at the same time that the lower costs and other advantages enjoyed by large firms could contribute to increased concentration over time. Both phenomena would result in a positive relationship between concentration and profitability, albeit with much different implications for antitrust policy. Peltzman (1977) helps disentangle the nature of the empirical relationship between concentration and profitability by examining how concentration is related to price on the one hand, and to average cost on the other. In Peltzman's framework, the relationship identified between concentration and price reflects the ability of firms to charge above-competitive prices, while the relationship between concentration and average cost reflects efficiency advantages enjoyed by firms in concentrated industries. Based on his empirical findings, Peltzman argues that a positive relationship between concentration and price can be identified. However, it is dwarfed in statistical importance by the relationship between higher concentration and lower average cost.

Demsetz's famous 1973 paper, buttressed by Peltzman's empirical work, fundamentally overturned the widespread interpretation of the SCP paradigm. In particular, it undermined the conventional wisdom that relatively high levels of industrial concentration signal much weaker competitive behaviour and likely inefficient performance. Indeed, it cautions that precisely the opposite inference might be appropriate in many cases. This insight has been incorporated into the practice of antitrust law. The evaluation of proposed mergers and acquisitions, as well as business practices that

¹⁸ Alchian (1963) was one of the first economists to document the empirical importance of learning-by-doing in his study of the production of aircraft frames.

are identified in law as being potentially anticompetitive, incorporate both a wider range of criteria beyond industry concentration ratios and also take into account the potential for larger firm size to promote increased efficiency.

The important role of transactions costs

Demsetz and Peltzman's work primarily provides empirical evidence challenging the conventional wisdom that antitrust authorities should discourage or prevent mergers and acquisitions because allowing only a smaller number of firms in a market will primarily result in higher prices that hurt consumers. The UCLA School also provides novel theoretical explanations for why mergers and acquisitions could improve economic efficiency, thereby making consumers better off. Klein, Crawford, and Alchian (1975) did seminal research on this idea. They emphasized the role of transaction costs as an important influence on whether people choose to do business with each other as members of a single organization or transact as independent units using contracts or other legal commitments to govern the transactions. The presumption is that they will choose the method of doing business that is most efficient, taking transaction costs into account.

Klein, Crawford, and Alchian noted that one source of transaction costs is "post-contractual opportunism." One party to a set of market transactions might take advantage of another party because of the latter's investments in assets whose use is specialized to the transactions in question. Consider our earlier example of several oil wells that are located along a separately owned pipeline that leads to a cluster of independently owned refineries with no alternative crude supply at comparable cost. Once all the assets are in place—the wells are drilled and the pipeline and refineries are constructed—the oil-producing properties and the refineries are specialized to the pipeline.

The owner of the line of pipe between the oil wells and the refineries has substantial bargaining power, since the cost of constructing a new competing pipeline is quite high. Because the wells have already been drilled, the costs of doing so have already been incurred. That means that the pipeline owner could drive the price it pays for crude oil down to a level that covers the current costs of production but doesn't cover the already-incurred (or "sunk") costs of building the well. At the delivery end of the pipeline, the pipeline owner could demand a higher than agreed-upon price for delivering the crude oil to the refineries, since the refinery owners would find it extremely expensive

to abandon their current refineries and rebuild them elsewhere. Therefore, once the oil producers and oil refiners have made their investments, those investments are essentially hostages to the pipeline owner.

Of course, the owners of the oil wells and refineries would be aware of this risk before making their investments, and they would presumably require some reliable protection against the realization of that outcome. They might, for example, enter long-term contractual agreements with the pipeline owner that lock in the price that the pipeline owner will pay for oil and the price that the pipeline owner will charge refiners for crude oil delivered to them. But the cost of negotiating and enforcing such contracts could be quite high. It might need to allow for contingencies such as temporary reductions in service for maintenance of the pipeline or changes in prices paid for or charged by the pipeline related to changes in costs of operating the pipeline. It would also, of course, need clauses that cover changes in the world price of oil. Identifying and including all potential contingencies into a contract would be time consuming and litigating any disputes would likely be expensive.

Another way of dealing with the hostage problem would be for the oil producers and refiners to minimize the investments they make up front. For example, refiners might build much smaller refineries to minimize the sunk cost investments that could be implicitly grabbed by the pipeline owner. The problem is that smaller refineries would likely be less efficient than large refineries because the former cannot take advantage of economies of scale. Furthermore, with less crude oil needed to be carried to small-scale refiners, both the pipeline and the oil drillers might also operate at a scale that is less than efficient. In short, while costs associated with structuring and enforcing contracts might be reduced, other costs would be higher.

Another way to address concerns about post-contractual opportunism would be common ownership of the stages of the process from oil production through refining. Such common ownership is what economists call vertical integration. Because there would be a single owner of the various stages of the industry from oil production through refining, the incentive of that single owner is to maximize the combined efficiency and profitability of all of the stages taken together, rather than maximizing the profits of any one stage. A merger among the various companies would increase concentration in the oil producing and refinery segments. However, it would also lead to increased

efficiency in those sectors, thereby illustrating Peltzman's point that increased concentration can lead to lower average costs. Furthermore, if the refineries involved in the merger compete against other refineries located elsewhere, the price to consumers need not increase.¹⁹

The UCLA School's main insight is, again, that evaluating transactions carried out in private markets requires the economist to pay attention to real-world conditions. In the case described above, transaction costs may promote mergers and acquisitions because the latter are the most efficient way to address transaction costs even as they reduce the number of independently owned firms competing in a market. Antitrust restrictions on mergers based on the SCP paradigm may, therefore, lead to less efficient outcomes and higher prices for consumers. The School's contributions to a more robust understanding of transaction cost-based motives for mergers were a major intellectual underpinning for a more tolerant attitude on the part of antitrust authorities towards mergers and acquisitions, especially those related to vertical integration.

A recent example is the acquisition of Time-Warner, a large media company that, among other things, owns the CNN cable channel, by AT&T, a very large communications company. The US government sought to block the acquisition on grounds that AT&T would gain substantial market power in supplying entertainment content and would use that power to restrict access that other content distributors (e.g., other cable, streaming, and mobile phone companies competing with AT&T) would have to Time-Warner's products at competitive prices. AT&T argued that the large number of existing producers of programming content meant that Time-Warner enjoyed no power to charge above-competitive prices for its content prior to the acquisition and that the acquisition would not change that condition. It further argued that combining the creation and distribution of entertainment content would improve the quality and variety of programming available to consumers by combining AT&T's knowledge about consumers' viewing preferences on various distribution platforms, for example, mobile phones, with Time-Warner's

¹⁹ For a similar discussion of how the merger between General Motors and its main supplier of auto bodies contributed to improved efficiency by addressing post-contractual opportunism in the most efficient manner possible, see Klein (1988).

expertise in creating programming content. In June 2018, a federal judge ruled against the US government and in favour of AT&T.

Resale price maintenance and advertising

The Competition Act in Canada and US antitrust legislation identify a number of business practices as potentially anti-competitive, and the relevant government agencies have periodically taken actions to compel businesses to cease and desist from those practices. An example is where manufacturers require that retailers charge a minimum resale price for the manufacturers' products. For example, manufacturers of expensive watches, such as Rolex, often request stores selling their watches to set their prices at or above a specific minimum price. This practice is clearly a strategy to limit price competition in the retail market for, say, Rolex watches, which, in theory, should be bad for consumers. Another example is territorial restrictions whereby a manufacturer gives an exclusive right to a specific retailer to sell the manufacturer's product in a particular location. By limiting competition among different retailers in the location, the manufacturer is seemingly limiting price competition for the product in question, which would also seem to hurt the consumer.

But these practices raise an obvious question: why do manufacturers sometimes find it in their interest to limit competition in the “downstream” or retail segment of their industries? It doesn't make sense on its face for manufacturers to want retailers of their product to compete less. After all, if the manufacturer of a fancy watch wanted to straightforwardly exploit its market power, it could charge the retailer an above-competitive wholesale price and exploit its privileged position directly in the price it charged to its immediate customers, i.e., the retail stores that sold its watches.

The first economist to explain this paradox was Lester Telser of the University of Chicago in his 1960 article “Why Should Manufacturers Want Fair Trade?” Members of the UCLA School expanded on Telser's insight. Telser and the UCLAers shed important light on the rationale for practices that seemingly limit competition at the retail level by again appealing to real-world conditions surrounding market exchanges.²⁰ Specifically, information costs play a prominent role in helping us understand business practices such

²⁰ See Klein and Leffler (2009) for a discussion of the business practices discussed in the remainder of this chapter.

as territorial restrictions. Consider, for example, why a company such as Caterpillar, that makes very expensive earth-moving machines, might assign exclusive rights to specific retailers to sell and service its machines in particular locations. A customer spending hundreds of thousands of dollars on a piece of equipment wants to be confident that the machine will work as advertised. Furthermore, he wants to be confident that if anything goes wrong with the machine, it will be serviced quickly and properly.

Now imagine that Caterpillar allows a large number of dealers to sell its earth moving machines. Indeed, imagine it will sell its machines at wholesale to any retailer willing to pay the wholesale price. The task of vetting the retailers of Caterpillar's machines will then fall to the potential customers. While word-of-mouth and other sources of information can help inform potential customers about which Caterpillar dealers are more or less reliable, individual retailers have an incentive to free ride on the efforts of other sellers of Caterpillar machines to provide needed services. Such efforts include holding inventories of replacement parts to facilitate quick and lasting repairs. Those dealers who save money by free riding can afford to charge somewhat lower prices than dealers who provide the full set of services that are complementary to the sale of a very expensive piece of equipment. The incentive to free ride exacerbates the problem facing customers who want to do business with a "high-quality" dealer and are willing to pay for the high quality they receive. Specifically, potential customers must determine whether and to what extent a lower price charged by one dealer relative to another reflects a more efficient operation of the former dealership rather than lower quality after-sales service. The costs of gathering and evaluating information about the quality of different dealerships are likely to discourage some, perhaps many, potential customers from buying an expensive Caterpillar machine and cause them to buy a cheaper alternative.

Conversely, if Caterpillar assigned a single retailer in, say, the province of Alberta, the exclusive right to sell and service Caterpillar products, the free-rider problem would be significantly mitigated. The retailer holding the exclusive franchise in Alberta would have an incentive to sell Caterpillars while providing the full range of services that customers desire and are willing to pay for. This is because the retailer holds a very valuable property right granted it by Caterpillar; if that retailer cut corners in providing the services customers thought they had paid for, Caterpillar could revoke the retailer's right to sell

and service Caterpillars. At the same time, potential consumers would recognize that the exclusive retailer's incentive is to provide the level and quality of service that are commensurate with the price paid for Caterpillar machines. In this case, the exclusive territorial arrangement provides valuable information to customers about the quality of service they can expect if they buy Caterpillars. Customers who want higher quality machines will be better off under the exclusive territorial arrangement than they would be if Caterpillar sold its machines at wholesale to any would-be dealer of its products. When customers are better off, their satisfaction leads to higher retail demand and, therefore, feeds back to higher demand for Caterpillar products.

Some economists and many consumer advocates criticize advertising, arguing that much of it is wasteful. The pharmaceutical industry in particular has received substantial criticism for "wasting" money on advertising and then charging higher prices for their drug products to recoup their advertising costs.²¹

A stream of studies in the 1960s and 1970s focused on whether advertising was designed primarily to "inform" potential buyers about products' objective features and advantages or it was primarily aimed at making emotional appeals to consumers' vanities and aspirations.²² The underlying premise was that if advertising were primarily lifestyle oriented rather than informative, that would support the criticisms of advertising. That is, advertising that did not provide factual information about a product was unlikely to inform consumers about the product's features, price, and other attributes and would therefore, even if profitable, be socially wasteful.

The UCLA School made an important contribution to the debate surrounding advertising by highlighting the role that advertising plays in assuring consumers about the quality of products when it is costly to obtain information about the quality and reliability of products. Indeed, Klein and Leffler (2009) argue that the debate about whether advertising is primarily informative or aspirational is, at best, beside the point. In their view, the primary role of advertising is to build a product's brand name. In this regard, advertising can be seen as a stream of sunk cost investments that will pay off for a company *only* if that company stays in business long enough and can charge a

²¹ A review and critical evaluation of this argument is provided in Philipson (2016).

²² See Santilli (1983) for an overview of the debate about the nature of advertising.

sufficiently high price to recapture those investments. To stay in business for a long time, the company needs to deliver products whose quality is commensurate with the prices charged. A company seeking to cut corners and cheat on quality runs the risk of severely damaging its brand name. That would mean that it may not recapture the outlays it has made on advertising and promotion over the years. In short, firms selling more heavily advertised and often higher priced products use advertising to signal to consumers that they will provide reliable products and engage in honest dealing lest they depreciate the brand names they have spent so much money developing.

Conclusion

The contributions of the UCLA School to a better understanding and application of competition policy are consistent with its other contributions to our understanding of the economic world. Economic transactions take place in a world of uncertainty, imperfect information, and transaction costs. Buyers and sellers have strong incentives to structure transactions to address those issues. Critical evaluations of how transactions are structured need to take account of the motives for, and consequences of, the relevant initiatives taken.

This does not mean that the School minimizes the role of monopoly. On the contrary, members of the School were among the leaders in pointing to government, with its coercive power, as the main source of monopoly. Demsetz pointed out that for a monopoly to be sustained, the industry must be able “to restrict or retard the expansion and utilization of productive capacity.” This is much easier to do, he noted, when the industry can recruit the government to coerce potential entrants. He pointed out that the Department of Agriculture uses taxpayer funds to police restrictions on various crops, causing food prices to be higher than otherwise, something that could not happen in a competitive unregulated farm sector. He also pointed to the now-defunct Civil Aeronautics Board, which enforced a cartel among domestic airlines. He wrote, “An investment by industry to obtain government aid to monopolize is likely to yield much more control than the investment of the same sum without the aid” of government (Demsetz, 1989: 108).

It is perhaps most fitting to let Demsetz have the final word. He asserted in his 1973 article that any attempt to fine-tune business behaviour (other than prohibiting collusive agreements to fix price) is likely to do more harm than good to consumers. He argued that long-lasting characteristics of

the unregulated business world almost certainly reflect underlying efficiencies, and that industries that have been highly concentrated for years without government protection have done so only because producers in those industries serve consumers better than any seemingly feasible alternative industrial structure. If that had not been so, competition would have given rise to an alternative structure. The only important source of long-lasting monopoly, he concluded, is government.

Chapter 8

Regulation: The Economics of Unintended and Intended Consequences

The one result of this study that can be put forward most confidently is that auto safety regulation has not affected the highway death rate.

— Sam Peltzman (1975), “The Effects of Automobile Safety Regulation.”

The “jitney” episode of 1914-1915, wherein private automobiles were used as rivals to street railways, is typically treated in histories of American urban transportation either as an historical aberration, or at most, as an incident which inseminated the engineering design of early buses. Rather, we shall attempt to demonstrate in this paper, the jitney episode was central to the history of urban transportation, and more specifically, that the policy of putting down the jitneys led directly to much of what is looked upon as most unsatisfactory in contemporary urban transport.

— Ross D. Eckert and George W. Hilton (1972), “The Jitneys.”

The UCLA economists who added the most to our understanding of regulation were Sam Peltzman and George Hilton.

Unintended consequences

One theme of much of their work is the idea of unintended consequences. Legislators and regulators, with little of their own wealth at stake, often fail to think through or simply don’t care about the unintended consequences

of the policies they favour and enforce. Even those who might care are not omniscient. So even if they have good intentions, they will still often cause consequences that are at odds with their stated goals.

Sam Peltzman's first major contribution to the literature on the unintended consequences of regulation was his famous path-breaking study of the effects on drug development of regulation by the Food and Drug Administration (FDA).

Prior to 1962, the FDA could prevent a pharmaceutical company from selling a drug only on grounds of safety. But after the thalidomide tragedy of the late 1950s and early 1960s in which hundreds of babies, mainly in Europe, were born with drastically shortened or no limbs after their mothers took the drug, the federal government introduced a law that required evidence of drug efficacy. Notice the irony. Thalidomide turned out to be unsafe, not ineffective. Indeed, it was quite effective at its intended use, namely, helping pregnant women deal with morning sickness. But proponents of increased regulation used the tragedy to push for a regulation on efficacy.

The particular regulation was the 1962 Kefauver Harris Amendment to the Federal Food, Drug, and Cosmetic Act. In the early 1970s, Sam Peltzman, then a young professor at UCLA, wondered if the regulation would slow the rate of introduction of new drugs. After all, additional compliance costs make drug development more expensive. So he compared the number of new chemical entities that the FDA had approved before the 1962 law with the annual number approved after the law. The result? According to the Peltzman's analysis, had the pre-1962 law trend continued, there would have been about 40 new drug approvals each year. Instead, there were only 16, a 60 percent drop (Peltzman, 1974).

One might hope that it was mainly bad or ineffective drugs that were weeded out. But no such luck. Peltzman estimated that, at most, the percentage of ineffective drugs being marketed before 1962 was 10 percent. As a result of the Kefauver-Harris Amendment the percentage may have dropped to 5. Yet the 60 percent drop in all drugs meant that patients never had access to many drugs that would have been efficacious. Peltzman commented that the effects of the 1962 law were as if "an arbitrary marketing quota... had been placed on new drugs after 1962" (1974: 45).

For those who think that regulation causes good effects, Peltzman's results presented a puzzle. Why *weren't* there more ineffective drugs on the

market and why *didn't* the FDA have a salutary effect? Peltzman answered, “The penalties imposed by the marketplace on sellers of ineffective drugs before 1962 seem to have been sufficient to have left little room for improvement by a regulatory agency” (1974: 45).

Peltzman concluded that the costs of the 1962 law exceeded the benefits, writing, “It appears that a form of ‘shot-gun therapy’ has been applied to the problem of ineffective drugs: for the sake of excising (part of) the potentially offending 10 percent, 60 percent of potential innovation is eliminated” (1974: 87).

Peltzman’s second major contribution to the understanding of the unintended effects of regulation was his 1975 study of the effects on traffic safety of a slew of US National Highway Traffic Safety Administration regulations on the design of cars. In the mid to late 1960s, the federal government made a number of safety features mandatory. These included seat belts for all occupants, an energy-absorbing steering column, a penetration-resistant windshield, a dual braking system, and a padded instrument panel. In his study, Peltzman stated that the goal of the mandates was to reduce traffic fatalities and serious injuries sustained as a consequence of vehicle accidents. But he found something different. Fatalities were not reduced at all. Instead, deaths of vehicle occupants fell but those of pedestrians and motorcycle drivers rose. Peltzman’s tentative explanation was that by reducing the probability of being killed in a given accident, the mandates caused drivers to drive more “intensely.” His finding became so well known that economists started referring to the “Peltzman effect.” Later studies found that drivers with anti-lock brakes tended to follow the cars in front of them more closely. A 2010 study of NASCAR accidents found that the “mandated use of a head-and-neck-restraint system has almost completely eliminated serious driver injury, while simultaneously increasing the number of accidents per race” (Pope and Robert D. Tollison, 2010).

Due in part to Peltzman’s work, studying unintended effects of various regulations has become a cottage industry.

Intended consequences: Regulation as a political market

One of the UCLA School’s main contributions to our understanding of the regulatory process is that it shows how regulators behave. Rather than acting as all-knowing promoters of the social good, regulators act in their own

self-interest. Specifically, while in their positions, regulators seek to maximize political support, which translates into more secure on-the-job tenure, larger agency budgets and higher salaries, and greater immunity from the scrutiny of legislators. Hilton (1972) was one of the earliest scholars to point out how regulators can benefit from their regulatory experiences after they leave the agency. He noted that few people make careers as regulators. Their relatively short tenure makes them concerned with what they will do after they leave their regulatory positions. If regulators want lucrative jobs, then friendly relationships created with organizations regularly appearing before the regulatory agency, particularly companies subject to regulation, are arguably more valuable to regulators than building a reputation for being knowledgeable and effective regulators.

Early critics of the regulatory process emphasized the concept of “regulatory capture,” whereby the financial interests of the companies being regulated dictated regulatory decisions. Beyond the potential interests of regulators in seeking future employment in the regulated industry, the basic logic behind this view of regulation was the concentrated benefits/dispersed costs paradigm. Producers tend to be in concentrated groups and consumers tend to be in much larger, dispersed groups. Producers have much to gain individually by dominating the regulatory process while consumers have less to lose as individuals. So even if a regulation causes more harm to consumers than it creates in gains to producers, producers will dominate the regulatory debate. Indeed, consumers might not be represented at all and might not even know about the regulations.

Peltzman disputed neither the idea that producers are frequently beneficiaries of the regulatory process nor that regulators pursue their self-interest and not some ideal perspective of the social good. Instead he provided a more general view of the economics of the regulatory process. In Peltzman’s model of regulation, the regulator redistributes wealth among various contending groups in order to maximize political support. That insight is probably the single most salient contribution to economists’ understanding of the regulatory decision-making process.

In his groundbreaking 1976 article, Peltzman explained the regulatory process as a market in which the forces of supply and demand determine the winners and losers from the wealth-transferring decisions of regulators. Both companies and consumers demand favorable decisions from the regulator.

Their representatives, who are often lobbyists or organizations representing specific groups such as retirees (AARP) or environmentalists (the Sierra Club, for example), supply financial and other support to politicians who are likely to appoint and empower regulators who will take actions favourable to the groups they represent. A key conclusion of Peltzman's model is that the outcome of the supply and demand process is that producers need not emerge as the sole beneficiaries of the regulatory process. Rather, because the cost of organizing into a cohesive lobbying group is only one factor influencing who will obtain favourable regulatory outcomes, the distribution of benefits and costs from regulatory decisions is likely to be more diffuse than the concentrated/dispersed paradigm predicts.

Consider, for example, the Canadian Radio and Television Commission (CRTC), Canada's version of the US Federal Communications Commission. The CRTC restricts foreign broadcasters from supplying Canadians with broadcast services sent directly from outside of Canada. This protects Canadian broadcasters from competition with foreigners, allowing them to charge higher prices for advertising. However, the CRTC does not allow Canadian broadcasters to capture all of the financial gains from the protection they are provided. In particular, they must produce and distribute a significant amount of "Canadian content." Broadcasters must favour Canadians who work in the film, television, and music industries, even though it would be cheaper and more profitable for Canadian broadcasters to license foreign programming, mainly from US copyright holders.

In short, the CRTC engages in cross-subsidization. In exchange for protection from foreign competition, Canadian broadcast distributors must "share" some of the higher profits that they earn from the effective monopoly position created by the regulator with Canadian producers, performers, writers, and other contributors to domestic programming. The "losers" are Canadian consumers who pay higher prices for their subscriptions to cable and satellite distributors, and (indirectly) higher prices for products that are advertised on Canadian distribution outlets.

The idea that regulators primarily engage in cross-subsidization rather than address suspected market failures is now a firmly established idea among academics and others who study regulation. It has received much empirical support, which we shall elaborate upon shortly.

Other economic consequences of regulation

Peltzman's general model of regulation leads to other insights about how regulators behave. As mentioned, cross-subsidization is an important feature of regulation, as regulators balance the demands for wealth distribution from various groups against the political benefits the regulators receive from those groups. For reasons Peltzman's model explains, the pervasive tendency is to subsidize relatively high-cost customers through the regulated pricing system, while penalizing relatively low-cost customers. For example, it is more expensive per customer to connect rural telecommunications users to the carrier's network than it is to connect urban telecommunications customers. However, the prices that rural customers pay do not cover the costs of serving them, while urban customers generally pay more than the cost of serving them.

Such cross-subsidization would be difficult to carry out over any extended period of time if new competitors were allowed to enter. Where consumers are being charged prices well above costs, the high resulting profits would attract new entrants the way honey attracts ants. This entry by new competitors would drive down prices in that segment of the market. That would, in turn, reduce, and ultimately eliminate, the net revenues used by the regulator to subsidize high-cost customers through relatively low prices. Hence, a ubiquitous feature of regulation is barriers to new firm entry set by the regulator. Calls for such barriers frequently arise from existing regulated firms. The reason is that they're stuck serving unprofitable segments and they need to generate higher profits on the lower-cost segments. The only way they can do so is if regulators protect them from competition in those segments. The inevitable result is that much time and money are spent on legal and lobbying efforts by both would-be entrants and incumbents. Furthermore, delays occur in the introduction of new goods and services, as well as in more efficient ways of providing the regulated service in question. This harms the lower-cost consumers and even, in some cases, all consumers.

Many statistical and case studies over decades support the basic insights of Peltzman's general model of regulation, and it is well beyond the scope of this monograph to review this extensive literature. Rather, we will briefly summarize a few of the contributions that the UCLA School has made to this empirical literature.

George Hilton is a relatively unsung member of the School who performed early and academically valuable historical studies of the effects of

transportation regulation. As discussed briefly in Chapter 1, in one of his most well-known studies, he and colleague and former UCLA student Ross Eckert documented the rise and decline of urban street cars in North America (see Eckert and Hilton, 1972).

By the early 1900s, urban public transportation in North America was provided almost exclusively by street railways. Most street railways operated one or a small number of lines serving a limited area of a city. The street railways enjoyed monopoly positions protected by franchise rights granted by the city and were regulated by municipal and state regulatory bodies. In virtually every major city, the street railway charged a flat 5-cent fare regardless of distance. This fee structure was a subsidy from riders who traveled short distances to those making longer trips, since operating costs were at least partially related to the distance the street railways needed to travel. This cross-subsidy was in the interest of municipalities since it made it more economically feasible to extend the geographical boundaries of cities by increasing the feasible home-to-work distance. The physical growth of cities, in turn, facilitated a growth of the municipal government's tax base. In addition, the street railways paid franchise fees to city governments.

After around 1914, a growing number of privately owned automobiles were competing with street railways. The faster autos attracted many short-distance passengers from street cars. Furthermore, the so-called jitneys competing with street cars offered customers more flexible destination service, since they were not physically restricted to travelling along specific street routes. The supply of jitneys available to commuters could also be rapidly increased during peak travel times. In short, jitneys offered commuters distinct advantages and were particularly attractive to commuters whom the flat fee structure penalized. Unsurprisingly, the street railways asked regulators for protection from these new competitors. Regulators imposed costly restrictions and fees on jitney drivers, making jitneys unprofitable to operate. The measures imposed were especially punitive for part-time drivers and those operating short-haul routes.

Eckert and Hilton continue their story by noting that buses eventually displaced street cars. However, the linear bus routes and the same flat-fee structures that street railways used led to bus transportation being largely displaced by private (i.e., not-for-hire) automobiles. The authors conclude that allowing free entry while ensuring that jitney operators and all other

users of the streets for transport services bore the full costs of their road use, e.g., road repairs, traffic signaling systems, and the like, would have given society the benefits of competition in urban transportation and saved consumers decades of unsatisfactory experience with inefficient—and very expensive—alternatives.

Peltzman (1968) assesses the effects of the suppression of competition by regulation in the US commercial banking industry. Specifically, he examines the effects of inter-state and intra-state restrictions on branch banking. In the period he studied, banks could not operate branch offices in some states, while in most other states, the number and location of branches were restricted. Furthermore, new banks wanting to enter faced daunting restrictions. The regulations, therefore, protected local banks in many cities and towns from competition. While the ostensible justification was that locally owned banks were essential to ensure lending and deposit services to small communities, the regulatory restrictions allowed the perpetuation of an inefficient banking structure, since banking as an industry was characterized by economies of scale. Furthermore, because regulation protected them from having to compete with larger banks, smaller local and regional banks could charge higher loan fees to borrowers, while offering depositors lower interest rates. In short, restrictions on banking competition were very costly and achieved a dubious purpose.

Final thoughts on regulation

The UCLA School does not contend that markets are perfect. As noted in Chapter 6, though, the UCLAers do not fall for the “Nirvana approach.” They contend that imperfections of various sorts are a fact of life and that a failure to produce an “ideal” economic outcome is insufficient for one to conclude that governments should intervene in private market transactions. The burden of proof is on critics to show that the government intervention proposed will produce “better” results for society, where “better” identifies an institutional arrangement that results in greater value for members of society than any other arrangement. While many instances of potential market failure, including environmental pollution and global warming, can be identified, such identification does not imply the necessity for government regulation. In this regard, the School argues that arrangements invoking market incentives to address perceived problems such as global warming are likely to be

preferred alternatives to government regulation. For example, most economists believe that a revenue-neutral carbon tax is a better way to address the problem of carbon emissions than is a command-and-control system of government regulation.

It is appropriate to leave the last word to George Hilton. He asserted that, as a general rule, regulation should not be expected to produce consequences that are in the public interest. Rather regulation can be expected to produce a monopoly and/or to perpetuate services that would fail a market test. He states, “[R]egulation is the worst possible organization as an industry, one to which all of the alternatives are preferable” (Hilton, 1972: 53).

Chapter 9

Do Firms Need to Maximize for the Model to Fit?

Realized positive profits, not *maximum* profits, are the mark of success and viability. It does not matter through what process of reasoning or motivation such success was achieved. The fact of its accomplishment is sufficient. This is the criterion by which the economic system selects survivors: those who realize *positive* profits are the survivors; those who suffer losses disappear.

— Armen Alchian (1950), “Uncertainty, Evolution, and Economic Theory.”

Imagine the following situation. You and many other people in a city—let’s say Chicago—want to leave Chicago by car. You have many routes to choose from. But, it turns out, of all the routes you and others might choose to drive, only one route has gas stations. What will happen? People who don’t use that one route will not get very far. The only drivers who will go far are those who choose the route that has gas stations.

This is obvious, right? Why bother discussing it? Because in a justly famous article, “Uncertainty, Evolution, and Economic Theory,” in the 1950 *Journal of Political Economy*, Armen Alchian uses the driving-from-Chicago example to help explain why economists can predict the behaviour of people who run firms, even if those people don’t have perfect information. Of course, firms *don’t* have perfect information and so Alchian’s reasoning is important.

The controversy and Alchian’s resolution

The setting for Alchian’s article, his first major submission accepted by a top journal, was a heated debate in economics journals in the 1940s about whether

it was reasonable to assume that firms maximize profits. Defenders of that assumption argued that firms acted as if they maximized profits. Some critics of the assumption argued that the fact of uncertainty meant that they *couldn't* maximize profits. Alchian took a different perspective from that of either the defenders or the critics. He did not argue that firms act as if they maximize profits. And he agreed with one critic, Gerhard Tintner, that when firms' managers cannot have certainty, the very concept of profit maximization is suspect.

But, argued Alchian, that does not mean that we can't predict the behaviour of firms. Akin to the evolution that Charles Darwin studied, when firms "evolve," those that make what, in retrospect, are good decisions, even if the decisions are random, will do better and be more likely to survive than those that make bad decisions.

That's where his driving-from-Chicago example comes in. Imagine that everyone who leaves Chicago randomly chooses a route. An economist predicts that those who chose the route with gas stations will get far and those who chose gas-station-free routes won't. The economist's prediction will be a good one.

Now back to firms. Imagine that the supply of labour falls, so that wage rates rise. In economic theory, efficient organizations would respond to the increase in wage rates by substituting, at the margin, capital inputs, such as machinery and equipment, for labour. So the result of the higher wages would be less employment of labour.²³

Now imagine that no organization initially responds in this textbook manner, but that some firms are operating, for whatever reason, with a lower labour-to-capital ratio than other firms. Assume that all firms start with the same costs. Now, as a consequence of the increase in wage rates, the firms with a lower ratio of labour to capital will have lower costs than the other firms. This, in turn, means that the former will have a higher probability of survival in the competitive process. The end result is that surviving firms will operate with lower ratios of labour to capital much as would have been the case had managers *deliberately* substituted capital for labour as textbook descriptions of efficient management behaviour would prescribe.

²³ That, by the way, is why so many economists over the decades have been critical of increases in the minimum wage. They want people who want to work to have jobs.

Alchian makes clear that he does not believe that people make decisions randomly, even if they are not fully informed about the circumstances surrounding their decisions or unable to know in advance the consequences of their decisions. To some extent, decision-makers will be guided by “successful” behaviour that they see around them and will adopt that behaviour to the extent they can. New behaviours that produce more efficient or preferable outcomes than existing behaviours will also be imitated, a process that Alchian calls “adaptive behaviour to innovation.”

But his point is that even if firm managers made decisions randomly, the competitive process would weed out firms that made retrospectively bad decisions and that the firms that made retrospectively good decisions would be more likely to survive.

The result is important. An economist need not assume that firms maximize profits. Economists are able to predict behaviour of the firms that survive without the strong assumption of profit maximization.

Behavioural economics

Decades after Alchian’s original insight, a school of thought in economics identified as behavioural economics came into the spotlight. The unifying theme of the literature on behavioural economics is that people’s reasoning is imperfect, susceptible to error, and amenable to corrective measures implemented by regulators or others in authority. A notable example was the regulation implemented by New York City to ban large soda beverages (drinks over 16 ounces) on grounds that sugary drinks contributed to obesity and the associated health risks.²⁴

Two behavioural economists have won the Nobel Prize in Economic Sciences: Israeli psychologist and economist Daniel Kahneman, who shared the Prize in 2002, and University of Chicago economist Richard Thaler, who won it in 2017. Much of the research done by Kahneman, Thaler, and others focused on identifying psychological biases and cognitive limitations that lead managers and consumers to make decisions that are inconsistent with improving their material or non-material welfare.

²⁴ In a 2014 decision, the New York Court of Appeals ruled that the city’s ban exceeded the scope of its regulatory authority.

Thaler offers the example of a person who buys a pair of shoes only to realize after wearing them that they are uncomfortable. A rational decision in this circumstance would be to get rid of the shoes, perhaps by selling them to a used clothing store or donating them to a thrift shop. Thaler argues, however, that most people leave their ill-fitting shoes in their closet rather than acknowledge that they made a bad purchase. Economists refer to this bias as a sunk cost fallacy. Kahneman's frequent co-author and Stanford Professor, Amos Tversky, gives another example. He documents through experimentation that subjects who lose a theater ticket that they purchased for, say \$10, on the way to the theater are unlikely to buy a replacement ticket; however, if they lose \$10 in cash on their way to the theater to buy a ticket, they are still likely to buy a ticket. Tversky reasoned that in the first case, people saw themselves as paying \$20 for a theater ticket that should have cost \$10, whereas they did not have that bias when they lost \$10 in cash. Behavioural economists refer to this phenomenon as putting money into mental silos when it is more rational to think of money as being fungible, i.e., useful for any financial transaction.²⁵

Alchian never addressed the arguments of behavioural economists directly. But his framework addresses the main concern raised by their arguments, namely, that conventional economic models that assume rational maximizing decision-making have limited predictive content and are poor guides to public policy. Indeed, in a sense, Alchian anticipated modern behavioural economics by acknowledging that most managers of firms do not and, indeed, cannot operate as pure profit-maximizers given the uncertainty and incomplete information characterizing the business environment. However, as discussed above, Alchian argued persuasively that predictions from economic models that assume rational decision-making would be reasonably predictive over time. The reason is that the for-profit environment selects for success. Firms whose managers implement strategies that lead to higher profits, whether the strategies were chosen intentionally or by accident, do better in the marketplace, while firms that make worse decisions do worse and may even disappear.

In his book *Misbehaving: The Making of Behavioral Economics*, Thaler gives an example that illustrates the point directly above. He and Cade Massey,

²⁵ These and many other so-called anomalies in logic are discussed in Thaler (2016b). Tversky tragically died in 1996 at the relatively low age of 59.

a fellow behaviouralist, did extensive work to estimate the value of top draft picks in the National Football League draft relative to the value of lower draft picks. They concluded that the best strategy for a team owner is to trade away first-round picks for additional picks later in the draft and to lend picks in the current year for better picks in the next year. They had a chance to consult with Washington Redskins (now the Washington Football Team) owner Daniel Snyder, who seemed to follow what they were saying. Whatever Snyder's understanding, he didn't follow their advice. Snyder traded up to get quarterback Robert Griffin III. In retrospect, with all RG3's injuries, it turned out to be a very bad choice. But Thaler's and Massey's point doesn't depend on retrospective thinking: their powerful evidence said in advance that this would almost certainly be a bad choice. The result: the Washington Redskins had a string of losing seasons. They didn't disappear, as some failing firms do, but they did do badly.

While Alchian focused his argument on firms, his basic logic applies to consumer behaviour as well. People who persist in indulging inefficient biases will not necessarily "perish," but will likely enjoy a lower material and non-material standard of living than their peers who, by accident or design, make "better" decisions. Some of the former will be motivated to imitate the latter's behaviours much as individual inefficient businesses will try to imitate the initiatives of innovative and prospering firms.

Also relevant, and consistent with the UCLA School's belief in the effectiveness of private markets to address problems that arise from imperfect information and transactions costs, organizations will emerge to help individuals make more efficient decisions as consumers and investors because it will be profitable to do so.²⁶ A contemporary example is Zillow, an online real estate company. A particular bias that behavioural economists identify, one that accords with the "endowment effect," is homeowners' propensity to value their homes above the amounts that potential buyers are willing to pay for those homes. Zillow provides free home estimates that are created through sophisticated Artificial Intelligence algorithms. The credibility of Zillow's estimates is strengthened by a complementary service offered by

²⁶ For an extensive discussion of how private sector organizations can help address the decision-making biases of individuals as discussed in the behavioural economics literature, see Manne and Zywicki (2014).

Zillow: Zillow is also a buyer of homes at offer prices that are only slightly below their published estimates of the market values of those homes. This is a powerful example of how private sector organizations can improve the efficiency of individual decision-making.

Another example relates to the bias of over-optimism. Behavioural economists have noted that individual investors tend to make consistent mistakes in choosing stocks. In particular, they tend to believe that they are better than average investors or they entrust their money to investment managers who they believe are better than average investors. But theory and evidence document that the overwhelming majority of investors, including professional investors, can earn higher returns *only* by accepting greater risks. Hence, spending time and money trying to be a better than the average investor makes active investing a losing proposition. It is no surprise that an alternative method of investing emerged and has, over time, become the dominant way that individuals invest in stocks: index funds. Index funds are low-cost investment vehicles that hold large and diversified portfolios of stocks. Managers of index funds don't attempt to "outperform" other investors by trying to pick winners and avoid losers. Instead, they try to duplicate the average return of a large portfolio of stocks, while minimizing the transactions costs associated with ongoing management of the portfolio.

It must be acknowledged that behavioural economics has had an impact on public policy. Regulators have implemented policies to "nudge" people to make what the regulators believe are better decisions. Notably, the British government established a Nudge Unit in 2010 to encourage people to alter their behaviour across a variety of activities. Perhaps the most prominent application of the nudge principle was the introduction of automatic enrollment for pensions in public- and private-sector organizations. Rather than having people opt into voluntary pension plans, "nudgers" designed the choice architecture so that people were automatically enrolled unless they chose to opt out. The government's motivation for the nudge was the belief of policymakers that individuals were not saving enough money for retirement. This specific nudge was subsequently adopted by many public and private sector organizations in other countries.

While Alchian's article was written long before the Nudge Unit was established, his article challenges the British government's implicit rejection of the premise that efficient behaviour emerges as an evolutionary market

process. While government regulators may believe that most individuals are too short-sighted to adequately save for retirement, many people do not want to live in penurious conditions in their old age and will learn the value of saving from the experiences of older family members and friends, especially those who failed to save. Indeed, a recent study of US households reports that the overwhelming number of those households save at least as much as they need to maintain their pre-retirement standard of living (see Zywicki, 2017).

Neither Alchian nor other members of the UCLA School would expect regulators to be free of biases or to have better information about how individuals should promote their well-being than the individuals themselves. Indeed, Alchian's article effectively argues that government actions are unlikely to promote more "efficient" conduct than would otherwise take place precisely because, unlike private sector participants, bureaucracies do not face selection pressures to abandon failed policies and adopt good ones.

Chapter 10

Can Economies Recover Quickly from Disaster?

Substantively, the historical review here suggests an extraordinary resiliency of human populations and social structures. It is of course impossible to prove that social breakdown will never occur in the aftermath of disaster, especially when we contemplate the unprecedented catastrophe of nuclear war. But the lurid picture of post-disaster regression to savagery, that staple of fiction and of popular thought, can draw no support from the historical record.

— Jack Hirshleifer (1987), *Economic Behaviour in Adversity*, p. 6.

Jack Hirshleifer, one of the key members of the UCLA School, was ever the empiricist. In the early 1960s, when decision-makers in the US military were concerned about the after-effects of a nuclear war, Hirshleifer did a pioneering study for the US Air Force on the “causes, characteristics and consequences of important historical disasters.” The study, formally titled *RAND Corporation Memorandum RM-3079-PR*, was published in April 1963 and was later reprinted in his 1987 book *Economic Behaviour in Adversity*.

While works of fiction often depicted a descent into savagery after a major catastrophe, Hirshleifer found the opposite: when property rights were fairly secure and governments avoided economy-wide price controls, societies were relatively peaceful and economies recovered quickly.

Among the cases Hirshleifer studied were the Soviet economy after the New Economic Policy of 1921, following the period of “War Communism,” and the so-called German Economic Miracle after World War II. In both cases the economies adjusted relatively quickly to massive deregulation, and the resulting economic growth was substantial.

The Soviet Union and the new economic policy

Soon after the Bolsheviks managed to oust the relatively moderate provisional government run by Alexander Kerensky, the Soviet Communists began their policy of War Communism. Under War Communism, which lasted from 1917 to 1921, the Bolsheviks proceeded in two steps. They first took over the so-called “commanding heights” of the economy. The commanding heights, wrote Hirshleifer, were “a relatively small number of large factories located mainly in the major cities.” The Bolsheviks then proceeded to take over almost the whole rest of the economy. The government requisitioned all agricultural output that it judged to be above the farmers’ level of subsistence and rationed it to the urban population at below-market prices. A policy of high inflation made these prices meaningless, and the Communists then shifted to simply giving away food. The government also conscripted labour. Hirshleifer pointed out that the entire economy was run as if it were an army and “the process of voluntary exchange was rejected and prohibited.”

As Hirshleifer documented, the result was economic disaster. By 1920, Russian industrial output was only 20.4 percent of its level in 1913. The gross yield of crops in 1920 was 54 percent of the average level between 1909 and 1913, and the numbers of horses, cattle, and sheep, and goats were all down by double-digit percentages. Incentives matter: with little incentive to produce for others, given that they couldn’t charge, farmers reduced production. When governments give away food and don’t allow free markets in food, there are always shortages, and the case of the Soviet Union was no exception. When that happens, black markets inevitably arise. Hirshleifer pointed out that town dwellers obtained well over half of the food they consumed through illegal channels.

The Soviets, seeing the economy collapse and concerned about maintaining their political power, tried the New Economic Policy. The first big step was in agriculture, in which well over half of the labour force worked (Katkoff, 1957). In March 1921, the Soviets ended compulsory requisitions of food and replaced them with a proportional tax in kind on farm production. That was a major step. Compulsory requisition of food above a certain level, Hirshleifer notes, is the equivalent of a 100 percent tax above that level. A proportional tax, by contrast, is what we now call a flat tax rate. The Soviets also legalized private exchange of agricultural and industrial products, abandoned central planning of the economy, and ended conscription of labour.

The result was an economic boom. By 1923, industrial output was 75 percent above its 1920 level and agricultural output was up by 17 percent. Later, of course, all of this was reversed when the Soviets went back to full-on Communism with all its problems.²⁷

Post-World War II Germany

When Germany emerged from the Second World War, its economy was in shambles. Allied bombing plus ferocious battles fought on the land, mainly between Soviet and German armies, had caused massive destruction. The bombing and fighting ended with Germany's surrender on May 8, 1945.

But fighting and bombing were not the only causes of destruction. Just as the Allied governments did in World War II, Adolf Hitler also had imposed economy-wide price controls on most goods and services. Those controls caused massive shortages.

What happened after the war? Hirshleifer writes:

The decision to maintain and enforce the National Socialist system of ceiling prices was made on a four-power basis shortly after the surrender. (1987: 67)

Each of the four Allied governments—the Soviet Union, the United States, France, and Great Britain—controlled a “zone” of German territory.

Hirshleifer points out that the post-war price ceilings were “initially based upon a Hitler price freeze dating as far back as 1936,” but that liquid funds had risen more than ten-fold over that time. Germany's central bank, the Reichsbank, like central banks of most of the countries at war, had multiplied the money supply. With over ten times as much money chasing roughly the same amount of output, but with prices not being allowed to rise, the result was economy-wide shortages. This also meant that money was not very useful. Even people who had a lot of Reichsmarks couldn't do much with their money if sellers were not legally able to charge them high prices.

²⁷ For a beautiful and moving treatment of the problems with Communism, see Spufford (2010). Spufford, though not an economist, shows a deep understanding of Communism as an economic system and as a wrecker of havoc with family life. The book is somewhere between novel and history, with real and made-up characters.

What happened in Germany is reminiscent of the old butcher joke. A man goes into a butcher shop and asks, “How much is the filet mignon?” The butcher answers, “Twelve dollars a pound.” “Twelve dollars a pound?” says the customer, “I can get it across the street for ten dollars a pound.” “Then why don’t you buy it there?” asks the butcher. “He doesn’t have any,” replies the customer. The butcher replies, “Well, when I don’t have any, I charge eight dollars a pound.”

The American authorities, under US General Lucius D. Clay, understood the need for a “currency reform” that would bring the money supply back in line with prices, notes Hirshleifer, but the Soviets refused to agree.

As a result, many Germans came close to starvation. Hirshleifer presents a table, based on data he got from Lucius D. Clay’s book *Decision in Germany*, showing the number of daily calories that food rationing in Germany was designed to give Germans. The number was low, rising from 950 in July 1945 to 1,550 calories in October 1946, and dropping to 1,040 in April 1947 (Hirshleifer, 1987: 60).

Table 1 Food Rationing in Postwar Germany (General Clay’s comments)

Date	Remark
July 1945	US Zone ration set at 950 to 1150 calories. Only 950 distributed.
August 1945	Official ration set at 1550 calories. Not met.
Winter 1945/46	1550 calorie ration met for a few months.
February 1946	Downward trend resumed.
May-June 1946	Low point, 1180 calories.
End of June 1946	Increase to 1225 calories.
October 1946	1550 calorie ration met.
January 1947	Fusion of British and US zones prevents maintenance of 1550 calorie ration.
April 1947	Authorized allowance dropped to 1040 calories.
June 1947	Ration started upward again.
April 1948	1550 calorie allowance met.
July 1948	Ration set at recommended 1990 calorie level.

Source: Hirshleifer, 1987, table 1.19: 60, from Lucius D. Clay (1950), *Decision in Germany* (Doubleday): 263-270.

The food shortages due to price controls were so severe that some people grew their own food and others traveled to the countryside on weekends to barter for food. Yale University economist Henry Wallich writes:

Each day, and particularly on weekends, vast hordes of people trekked out to the country to barter food from the farmers. In dilapidated railway carriages from which everything pilferable had long disappeared, on the roofs and on the running boards, hungry people traveled sometimes hundreds of miles at [a] snail's pace to where they hoped to find something to eat. They took their wares—personal effects, old clothes, sticks of furniture, whatever bombed-out remnants they had—and came back with grain or potatoes for a week or two. (1955: 65)

But once the three other governments dropped the Soviets, General Clay had some running room and on June 20, 1948, used it to implement a currency reform. He substituted a smaller number of deutsche marks for the old Reichsmarks, causing a 93 percent reduction in the money supply. This meant that much less money was chasing goods and so the controlled prices were not as far below what the free-market prices would have been. That made shortages both less common and less extreme. That same Sunday, the German Bizonal Economic Council, at the urging of Clay's economic advisor Ludwig Erhard, passed a price decontrol ordinance that allowed Erhard to eliminate price controls. Over the next few months, Erhard eliminated the economy-wide price controls.

Well after Hirshleifer wrote his study, journalist Edwin Hartrich (1980) related the following story about Erhard and Clay. In July 1948, after Erhard, on his own initiative, abolished food rationing and ended all price controls, Clay confronted him:

Clay: "Herr Erhard, my advisers tell me what you have done is a terrible mistake. What do you say to that?"

Erhard: "Herr General, pay no attention to them! My advisers tell me the same thing." (Hartrich, 1980: 4)

Hartrich also tells of Erhard's confrontation with a US Army colonel the same month:

Colonel: "How dare you relax our rationing system, when there is a widespread food shortage?"

Erhard: "But, Herr Oberst. I have not relaxed rationing; I have abolished it! Henceforth, the only rationing ticket the people will need will be the deutschemark. And they will work hard to get these deutschemarks, just wait and see." (1980: 13)

The currency reform, along with abolishing price controls, worked to eliminate all of the shortages that had been caused by price controls. Further, as US economist Walter Heller, later President John F. Kennedy's chairman of the Council of Economic Advisers, noted at the time, to "remove the repressive effect of extremely high rates, Military Government Law No. 64 cut a wide swath across the [West] German tax system at the time of the currency reform" (Heller, 1949: 218).

David R. Henderson (2008) writes:

The corporate income tax rate, which had ranged from 35 percent to 65 percent, was made a flat 50 percent. Although the top rate on individual income remained at 95 percent, it applied only to income above the level of DM250,000 annually. In 1946, by contrast, the Allies had taxed all income above 60,000 Reichsmarks (which translated into about DM6,000) at 95 percent. For the median-income German in 1950, with an annual income of a little less than DM2,400, the marginal tax rate was 18 percent. That same person, had he earned the Reichsmark equivalent in 1948, would have been in an 85 percent tax bracket.

The effects of the currency reform, price decontrol, and large cuts in marginal tax rates were almost instantaneous. Hirshleifer quotes Wallich:

Observers, left-wing as well as right-wing, agree that it transformed the German scene from one day to the next. On June 21,

1948, goods reappeared in the stores, money resumed its normal function, black and gray markets reverted to a minor role, foraging trips to the country ceased, labour productivity increased, and output took off on its upward surge. (Hirshleifer, 1987: 71)

As evidence that foraging trips to the country ceased, Hirshleifer points out that “short-haul railroad passenger traffic dropped immediately to less than 40 percent of its pre-reform volume.”

Wallich writes, “The spirit of the country changed overnight. The gray, hungry, dead-looking figures wandering about the streets in their everlasting search for food came to life” (1955: 71). Hirshleifer quotes Heller, writing in September 1949: “It has unquestionably proved an economic success. It quickly re-established money as the preferred medium of exchange and monetary incentives as the prime mover of economic activity” (1987: 71).

Local disasters

Hirshleifer also studied localized disasters. Here’s what he wrote about the aftermath of the Allied fire-bomb raids on Hamburg in 1943:

As a specific instance, the fire-bomb raids on Hamburg in July and August 1943 were highly intense community-wide disasters. As normally occurs in such situations, people proved tougher than structures. The raids destroyed about 50 percent of the buildings in the city, whereas the 40,000 people killed were less than 3 percent of the population at risk. About half the survivors left the city. Some 300,000 returned in the recovery period, while around 500,000 were permanently evacuated to other areas throughout Germany. A “dead zone” of the city was closed off so that repairs could be concentrated in less seriously damaged areas. Electricity, gas, and telegraph services were all adequate within a few days after the attacks ended. Water supply remained a difficult problem, however, and tank trucks had to be used. The transit system recovered only partially because of serious damage and abnormally heavy traffic, but mainline rail service resumed in a few days. On the seventh day Hamburg’s central bank reopened and business began to function normally. Hamburg was not a dead

city. Within a few months, the U.S. Strategic Bombing Survey reported, the city had recovered 80 percent of its former productivity. (Hirshleifer, 2008)

After such local disasters, noted Hirshleifer, there is an outpouring of support within and across communities. Immediately within the affected area, Hirshleifer wrote, “a strong feeling of community identification is generated, promoting cooperative and unselfish efforts toward repair and relief activity.” Also the crisis “calls forth an outburst of generous assistance, both personal and material,” from outside the affected zone. He also notes the emergence of leaders: “The abdication of conventional leadership often leads to the rise of emergent leaders, who are frequently those with less emotional involvement, or with some specialized knowledge or talent” (Hirshleifer, 2008).

Of course, we should be careful not to generalize to the future. In our increasingly interdependent world in which so many activities depend on the internet, it would be possible for those who want to disrupt to plant worms and viruses. Nevertheless, even in such hypothetical cases there is enormous scope for those who want to make money and those who want to be charitable to step up.

We have seen this range of behaviour during the COVID-19 pandemic. People’s fear of being with others in public, plus heavy-handed government lockdowns, have driven the incomes of waiters, bartenders, hairdressers, and gym workers down, often down to zero. In response, people who have been able to maintain their income have engaged in a huge outpouring of charity. They have given tips to restaurants workers providing takeout food and to hairdressers working outside that are often equal to or greater than the original charge.

Chapter 11

Concluding Comments

Once one understands certain aspects of competitive markets, one would view many institutions that people object to in a more sympathetic light.

— David R. Henderson (2019), “Economics Works.”

The quoted passage beginning this chapter underscores an important sub-theme of Armen Alchian’s work and, by extension, the work of the UCLA School. Scholars often see the economists of the UCLA School as ferocious defenders of free markets. They typically are. However, the claim should be qualified. Leading researchers of the UCLA School never claimed that free markets operate perfectly and always achieve textbook efficiency. As the earlier chapters in this book have shown, Alchian, Demsetz, and other members of the School acknowledged that phenomena such as imperfect information, transactions costs, and opportunism are pervasive. The critical issue that such phenomena raise, given real-world conditions, is whether a system relying upon well-defined property rights and private transactions results in more-efficient economic outcomes than a system that relies upon government prescriptions and regulations. The major contribution of the economists from the UCLA School is their careful and wide-ranging explanations and demonstrations of how and why private property rights and market competition are typically the most efficient institutional arrangement in an imperfect world characterized by scarcity.

The imperfections that characterize free market transactions do not magically disappear when government intervenes. Critics who argue that free markets are subject to “failures” that justify government interventions typically assume (usually implicitly) that the government intervention they favour will cause real world imperfections to disappear or that politicians

and bureaucrats are better than market participants at addressing imperfections. The UCLA School, particularly Harold Demsetz, identified how this approach to public policy issues was misleading and mistaken. Critics should not assume just because one institutional arrangement is imperfect that it cannot be preferable to alternative institutional arrangements.

In this regard, much of the empirical research done by the UCLA economists discussed in this volume documents, across a range of industries and market activities, that government intervention in the form of antitrust policies and regulations typically results in less rather than more efficient outcomes. This is not a surprising conclusion given the importance that the UCLA School placed on incentives that property rights and freedom of exchange create. If institutional arrangements do not reward efficient behaviour or if they fail to punish inefficient behaviour, one should anticipate greater inefficiencies than if the opposite were the case. The right to claim the benefits of more efficient decisions or else suffer the financial punishment of inefficient behaviour is a strong motivator for participants in private and competitive markets. This incentive is largely lacking for government bureaucrats.

The competitive imperative to use private property efficiently results not only in better economic outcomes but also frequently in better social outcomes. This is a gratifying finding of research by Alchian and Kessel, among others. They showed that the freedom to gain financially from efficient production in combination with market competition discourages racial and religious discrimination.

The economic benefits of market competition do not depend upon market participants having perfect information or being totally rational “calculating machines.” In what was arguably the first major academic contribution of the UCLA School, Armen Alchian persuasively argued that market outcomes would, over time, approximate the predictions from the first principles of economic models.

Over many productive years, the UCLA School built upon the fundamental insight that incentives matter enormously to human behaviour and that the nature and scope of property rights affect incentives in important ways. Public policies across a range of activities continue to benefit from this insight. We can say confidently that you, the reader, have benefited also.

In the last paragraph of their justly famous textbook, *University Economics*, Armen Alchian and William Allen wrote:

And that, gentle readers and young scholars, is the end of the book. What did you expect? A pot of gold?

That was, we suspect, William Allen's famous sense of humour at work. Behind the humour, though, whether they intended it, is a nugget (pun intended) of truth. Those who truly understand the insights from the UCLA School so that they can apply them to their own lives and to their understanding of the world, may have indeed figuratively obtained a pot of gold.

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ISBN 978-0-88975-646-5
Printed and bound in Canada.

Citation David R. Henderson and Steven Globerman (2021). *The Essential UCLA School of Economics*. Fraser Institute.

Cover artwork Leslie Lightheart

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Publisher's acknowledgments

The Fraser Institute would like to express its gratitude to the Lotte and John Hecht Memorial Foundation for its support for *Essential Hayek* (2015) and *Essential Adam Smith* (2018), which established the foundation for the extended Essential Scholars series. We would also like to thank the John Templeton Foundation, along with the Lotte and John Hecht Memorial Foundation, for their support of this specific volume, *The Essential UCLA School of Economics*.

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