

1 Economic Welfare and the Evolution of Property Rights

The economic system in what we usually call Western industrialized countries is based on private property. Property rights extend not just to small items for personal use or larger items for one's immediate family such as dwellings; they also extend to means of production, and land and its various resources. It can be argued that property rights to means of production and land is a fundamental reason for the success of this economic system. This arrangement also is, or has been, highly controversial. Socialism arose in protest against it and its perceived injustice. That perception was not without foundation. The Industrial Revolution made those who owned land and means of production immensely rich, but it is doubtful whether it made others poorer, at any rate in absolute terms. Pre-industrial societies were anything but affluent and egalitarian. Some individuals have always been able to get an edge over others, either by birth or by knowing how to maneuver themselves into positions of power and privilege. The Industrial Revolution and the economic development that followed raised the living standards of all nations in which it took place and brought "the common man" riches that his ancestors eking out a precarious subsistence would never even have dreamed of.

Yet the societies undergoing the Industrial Revolution or having just emerged from it were marred by a skewed distribution of wealth and the class struggle which it generated. Less than 100 years ago, socialism was a still untested dream of a more just and harmonious society. Many believed in it and offered their lives for it. As the practical experiments with socialism got under way, first in the Soviet Union and later in other countries, the dream became harder to believe. It finally ended in a nightmare, and the experiment collapsed when the Soviet Union, the first socialist state,

fell apart. Most of the few remaining states with a nominal association with socialism are now busy distancing themselves from its economic principles and practices.

What brought the experiment down? Could it have ended otherwise? The diehards would say that socialism has not really been tried yet. Even if the downfall of the Soviet Union has many and complex causes, one seems most important: the socialist system simply was not productive enough. The material standard of living in the affluent “West” further and further outpaced that in the socialist “East.” Even if the socialist East did its best to keep out Western media, awareness of the difference trickled down to the general public in the socialist countries, and members of their elite who traveled abroad became painfully aware of it.

This was not always so evident. In the 1950s and the 1960s, when Sputnik went aloft and the Soviet Union demonstrated the quality of its science and the prowess of its technology to the entire world, many people in the capitalist West, economists among others, believed that the socialist economies might one day overtake the capitalist economies in terms of material production. The economic growth of the Soviet Union seemed impressive; the fact that it still lagged behind the United States could be explained by a lower starting level and the devastation of World War II. The famous American economist Paul Samuelson published a diagram in the 1961 edition of his classic introductory textbook showing that the Soviet Union might overtake the United States in gross national product by the year 2000. The text accompanying the diagram reveals the undecided nature of the economic contest between the two superpowers at the time. “All seem to agree that [the Soviet Union’s] recent growth rates have been considerably greater than ours as a percentage per year. . . . It will be evident that the Soviet Union is unlikely to overtake our real GNP for a long time to come, and our per capita welfare level for a still longer time to come. . . . [O]ur two systems are on trial in the eyes of many uncommitted underdeveloped nations.” But Samuelson concluded “on a note of optimism. . . . Our mixed economy—wars aside—has a great future before it. Writing a textbook some 30 years ago, one could not have said all this: looking around at the shrinking international trade network, at the collapsing banking structure, at the grim specter of poverty midst plenty, some might then have despaired over the future of free societies.”¹ This last quotation may serve to remind us that, however productive capital-

ism may be, it will survive in democratic societies only if it succeeds in distributing its fruits reasonably equitably.

Private property rights are not the whole story behind the success of Western capitalism; the issue is immensely more complicated than that. Pre-industrial societies did not lack private property rights; they lacked a technology and an organizational framework that would have made it possible to use such rights productively. What capitalism and the Industrial Revolution accomplished was to mobilize the surplus value produced by labor (i.e., the value over and above what was needed to maintain and reproduce the labor force) for investment, making a still greater surplus possible. Many societies of the past were rich and produced substantial surplus value, but that value was appropriated by a predatory and unproductive ruling class and by the church or other religious or ceremonial institutions. The cathedrals of Europe, the pyramids of Egypt, and the temples of Thailand are among the legacies of this past. And societies did not have to be very productive to do this; the Easter Islanders converted their meager surplus production to carving statues out of their mountains and transporting them over long distances to the places where they were erected, their stony faces staring sternly at the lowly inhabitants who lived in primitive huts they could not even enter upright. How the limited technological knowledge of the Easter Islanders enabled them to do this still boggles the minds of those who try to understand it.

That private property should be among the keys to general prosperity is more than a little paradoxical. Private property is a manifestation of self-interest and greed; if we were happy to share everything, there would be no reason for private property. It is indeed paradoxical that a system based on self-interest and greed has proven itself superior to socialism, which is based on shared interests and common ownership. Dreamers of all ages have found it difficult to come to terms with this. No one has, perhaps, expressed it more eloquently than the famous French romantic Jean-Jacques Rousseau²:

The first man, having enclosed a piece of land, [who] thought of saying "this is mine" . . . was the true founder of civil society. How many crimes, wars, murders; how much misery and horror the human race could have been spared if someone had pulled up the stakes and filled the ditch and cried out to his fellow men: "Beware of listening to this impostor. You are lost if you forget that the fruits of the earth belong to no one!"

And no one has replied more eloquently than Rousseau's countryman Voltaire, who scribbled this in the margin³:

What? He who has planted, sown, and enclosed some land has no rights to the fruits of his efforts? Is this unjust man, this thief to be the benefactor of the human race? Behold the philosophy of the beggar who would like the rich to be robbed by the poor!

And in a letter to Rousseau, Voltaire added this⁴:

I have received, monsieur, your new book against the human race, and I thank you. No one has employed so much intelligence to turn us men into beasts. One starts wanting to walk on all fours after reading your book. However, in more than sixty years I have lost the habit.

Private property and self-interest constitute a powerful incentive mechanism. Being assured of the fruits of his efforts, the owner of a piece of land, a factory, or a mineral deposit has an obvious interest in taking good care of it and using it in the most productive way. Furthermore, a system of ordered and accepted property rights avoids devastating struggles over what would otherwise come into and remain in one's possession through taking and defending by force. Finally, as was emphasized by Hernando de Soto, secure property rights make it possible to "mobilize" property by using it as a collateral for credit to initiate new, productive projects or expand existing ones.⁵

Would humanity have chosen an economic system based on self-interest as a driving force and private property as a mode of organization if we were to design it from scratch, not knowing what would work and what would not? Probably not. Chances are that we would find it repugnant, and that we would instead go for a system with a more sympathetic appeal, one based on common property and care for our fellow human beings (this is what socialism was supposed to be about). But market capitalism was not designed from scratch, and it did not descend upon us all of a sudden. Market capitalism has evolved over a long period of time, through small changes and adaptations of institutions, and historians can probably argue endlessly about what got it going. It is, as the Scottish philosopher Adam Ferguson put it about jurisprudence, a "result of human action and not of human design."⁶

Another reason why the victory march of market capitalism is somewhat surprising is that this system seems to be a recipe for chaos rather than coordination. In capitalist market economies there is no single coordinat-

ing institution; decisions are made by individuals, on the basis of their (or their employer's) self-interest. It is not obvious how all these decisions interweave into a coherent whole capable of satisfying human needs in an acceptable manner. As Thomas Schelling has aptly noted, there are many cases where the overall consequences of individual decisions are unexpected and maybe unacceptable, yet unintended.⁷ The sum of individually innocuous parts can be evil. Worries about the coordination failures of market capitalism have compelled many economists to propose that the state should govern the economy in some detail. Indeed, there have been times, especially during the Great Depression, when capitalist market economies did not seem to be functioning well, as the above quotation from Samuelson alludes to. Today, however, few ideas have lost currency to a degree comparable to the "economics of planning."

That social welfare can be maximized through individual pursuit of private interest has been known since Adam Smith if not longer. Smith's famous phrase "as if guided by an invisible hand" does little, however, to explain how the coordination problem is solved, and it must still be regarded as a bit of a mystery how in fact this is achieved in a market economy. To some extent coordination may be fortuitous and specific in time and space; coordination failures such as the Great Depression have in fact happened, and rags and riches continue to coexist, more so in some places than in others. The advantage of the market economy lies perhaps first and foremost in making use of information where it is available, as emphasized by Hayek, and its release of individual energy through its appeal to individual gain. The seeking of self-interest is, however, like a powerful beast. If it runs amok, it may destroy; if it is tamed and harnessed, it will do useful work. Market capitalism works wonders when it is well tamed and harnessed. Unfettered capitalism is not a pretty sight. The Russia that emerged from the wreckage of the Soviet Union is a warning example.

So, in order to fulfill its role as a useful system of organizing economic activity, market capitalism has to be supplemented with a governance structure that channels its energies for the common benefit. The productivity of the system is one aspect, the distribution of its results another. All market capitalist societies are characterized by unequal distribution of wealth, but as long as the system is perceived as delivering the goods in a reasonably equitable manner this can be tolerated, and even welcomed if

it is seen as a precondition for productivity. At least in democratic societies, an economic order that is perceived as grossly unfair is not likely to last long, and in authoritarian societies elites resting on bayonets always lead an uncertain existence.

Despite the usefulness of and the powerful incentives associated with private property rights and market transactions, there are limits to how far they can and should extend. It is possible to come up with economic arguments in favor of slavery; the slave owner would have a stronger incentive than an employer of free labor to provide his slave with skills because the slave could not voluntarily change masters, but few of us would think that the argument stops there. Modern medicine has created a basis for a market in organs, but does that mean that people should have a right to sell themselves (or their offspring) in parts? Many people today are desperate enough to find that an attractive proposition.⁸ But in between clear-cut cases there are many which are less so; there is an element of judgment in how property rights should be defined and circumscribed and what should be left to markets to sort out and what should not. The subject of this book provides a fairly clear-cut case: as long as we regard fish primarily as a source of food and other material benefits, the problem in fisheries worldwide is absence of property rights and market transactions rather than the opposite.

Origins of Property Rights

How did private property arise? Did someone, as Rousseau put it, put down stakes or dig a ditch and say “This is mine” while others just said “Lo and behold”? Hardly. Private property is the outcome of the stronger arrogating to themselves a piece of land or whatever and keeping what they have built or made or occupied by being ready and able to defend it. This was a collective effort. In primitive societies one tribe defended itself against another tribe. Later the lord and his men defended themselves against other lords and their followers. Leadership, undoubtedly, has always been important; some have always been “more equal than others.” Sometimes leadership institutions become fossilized. There was a time when kings led their forces into battle, a time when being a king was a risky occupation.⁹ In those modern democratic societies that have not dispensed with them altogether, kings are ceremonial institutions.

Private property rights to land probably developed as a practical institution. The tribal chieftain rewarded his most trusted men with rights to certain pieces of land. The strengths of these rights have evolved over time; feudal lords fought with the crown for stronger rights, tenants with the lords. In medieval villages in England and much of Europe, much land was held in common, but individual families had private or semi-private plots scattered around, sometimes on a rotational basis. They had obligations to render services to the lord, sometimes converted into payments, whereof tenancies.

Even if much of the development of property rights is lost in the mist of unrecorded history, we do have written accounts of how property rights have been established in new, uninhabited lands or in lands sparsely settled by what in earlier times would have been called primitive tribes. When the Norwegian settlers came to the uninhabited island they named Iceland, rules were developed with regard to how much land each individual could claim. Men could take as much land as they could enclose by bonfires in one day, women as much as they could tow a cow around over the same period.¹⁰ These rules applied to the leaders (and even in those days, women could be leaders); each leader had in his or her household a band of laborers and slaves. Needless to say, the latter got no land except at the discretion of the leader. Gradually, and undoubtedly for practical reasons, some of them got their own plots, and the slavery disappeared. In the United States, groups of settlers often appear to have come to agreement among themselves about rights to land and to minerals. Sometimes these "rights" were to land claimed by other settlers of European origin and hence tenuous. Hernando de Soto tells of how such grassroots and squatter rights came to be recognized and incorporated into the law of the land, sometimes reluctantly and against opposition by other claimants.¹¹ Lately we have seen massive privatization of state property in the former Soviet Union and its former satellites.

What these episodes tell us is that the development of property rights is a social process shaped by the power structures in society. The Viking society was ruled by chiefs but was democratic to a degree. The American settler society was without chiefs. Government in the United States has prided itself of being by the people, of the people, and for the people, and in a society so founded it was undoubtedly difficult to oppose rights developed and recognized by people at large. The power structures shaping the

privatization of Soviet state property have been described in many books.¹² That process has not been a pretty sight, which does not necessarily mean that other avenues were open. The privatization process in Russia is probably best understood as a process where the old elite associated with the command and control economy was deliberately replaced with a new elite based on private property, in order to cement the new power structures. Ironically, the same individuals appear to have been equally comfortable within both elites.

What these recorded events do not tell us about, however, is the primeval development of property rights. Settlers of new lands take their history with them, and they can be expected to apply those parts of it which they find appealing and practical. Private property certainly existed in Viking-age Norway, and the European settlers in North America knew of property, even if they themselves had none in the Old World; perhaps for that reason it was all the more important. The reformers of Russia got their property notions from the capitalist world. Individual property rights are not known in all primitive societies, but power and influence are not necessarily equally distributed. It is possible to view economic history as a victory march of property rights. Gradually private property has become accepted as the normal order of things, supported by those who wield power in society. In primitive societies the club or the spear decided; in more developed and ordered societies it was wealth and organization; wealth and custom could command the armies necessary to suppress any rebellion against the prevailing order. But even in present-day democratic societies private property has come to be accepted as the normal order of things, despite being unequally distributed, presumably because it has shown itself to be a more productive way of organization than socialism.

Besides the recorded history of settlements on new lands, we have several examples of how property rights have changed form on land that previously was common. This has happened as a result of technological changes or changes in demand, making it worthwhile to claim individual property rights to previously common land or to change the form of land tenure. In the English enclosures, as a result of a rising demand for corn, common pastures were claimed by individuals, fenced in, and turned into farms. In Scotland, increased demand for wool made it more profitable to turn the Highlands into grassland for flocks of sheep than to extract rents from subsistence farmers and squatters, who were forcibly driven away. In the

1870s, the invention of barbed wire made it possible to contain herds of cattle, making it worthwhile to claim individual property rights to what was previously common grassland in the American West. Let us look a little closer at the English enclosures and the Scottish clearances, because these examples of privatizing the commons are in many ways parallel to what has been happening in the oceans in recent decades.

The English Enclosures

The English enclosures occurred over centuries, beginning in the fifteenth century or possibly earlier.¹³ Enclosure involves dividing common fields into private plots and fencing them off. In medieval England there were two types of common fields. One was the open fields under tillage where crops would be rotated on a certain schedule. Each household had its own parcels of the common field, not one but many and scattered. After the crops had been harvested the field was opened as a common pasture for the animals kept by the villagers. This kept the villagers to a common schedule of sowing and harvesting. Advantages of consolidating holdings into a contiguous plot for each owner was one reason why enclosures came to be preferred. Consolidation permitted the tillage of “balks,” land which was left unused between the plots. It also permitted economy of transportation, described as follows by a seventeenth-century observer: “Disorder appears thereby, the intermixt and dispersed lands, lying here one and there another. . . . So likewise in carriage of manure and harvest stuffe, and also other carriages, the labour is lost, which might be saved, if each man’s land lay together.”¹⁴

Another source of productivity gain lay in being released from the strictures of a common schedule, which could hinder experimenting with a new crop rotation. Turnips, for example, were harvested later than other crops and would have interfered with common grazing in the open field. And some farmers did not adhere strictly to the common schedule; they plowed their fields late and trespassed the already sown fields of others to the latter’s detriment.

The other type of common fields was the common pasture where the villagers grazed their animals. The incentive to put too many animals on the common pasture has been put succinctly by Hardin.¹⁵ Peasants will continue to add cattle on the common pasture as long as the animals

survive and produce enough meat or milk for the owner of an additional animal. But each additional animal eats grass that other animals could have eaten. Beyond a certain point the entire stock of cattle produces less meat or milk than fewer animals could have done. The peasants may end up with a cattle herd that just barely survives, and by their injudicious actions they might push themselves and their families to the edge of existence or even beyond. Some commons were “stinted,” i.e., the number of animals each could keep was limited, but even about those commons there are stories to the effect that they were overgrazed.¹⁶

Enclosure of the common pasture involved dividing it into private plots which subsequently often were tilled and used for crop production. Enclosure could also involve reclaiming unused land such as forests and fens and turning them into arable land. This was the result of marginal land acquiring value because of rising demand for agricultural products, through population growth and industrialization. The earliest enclosures (mid fifteenth and early sixteenth centuries) were, however, a different kind of response. In the fourteenth century, England was ravaged by the Plague, as was the rest of Europe. The population diminished and labor became more scarce. Fields under corn were converted to pastures for raising sheep. This is a bit similar to what happened much later in the Scottish clearances for other reasons than declining population. Concern arose over depopulation in some places:

The towns go down, the land decays;
Of corn fields, plaine lays;
Great men maketh now-a-days
A sheepcot of the church.¹⁷

From these times we have the adage “enclosures make fat beasts and lean poor people,” an indication that all did not share equally in the gains from enclosures.¹⁸ There are reports of uprisings against enclosures in the sixteenth century.¹⁹ One author wrote of “the poor who, being driven out of their habitations, are forced into the great towns, where, being very burdensome, they shut their doors against them, suffering them to die in the streets and highways.”²⁰

Privatized and enclosed common grazing fields were turned to crop cultivation or better utilized for livestock. Claims of enormous productivity gains can be found in the literature. For an example, see table 1.1. This

Table 1.1

Example of productivity changes due to enclosure. Source: Report on enclosures, Committee of the Board of Agriculture, 1794, quoted from Scrutton 1887, p. 121.

	Weight (pounds)	
	1710	1790
Cattle	370	800
Calves	50	148
Sheep	28	80
Lambs	18	50

puts some empirical blood into Hardin’s famous fable, but much more than that was involved. Privatization made improvement of land worthwhile. One interesting case is the draining of fens in Yorkshire and Lincolnshire. This was entrusted to Cornelius Vermuyden, a Dutchman. (Where but in the Netherlands would one find an expert on drainage and dikes?) This was not welcomed by the commoners living by these fens, who

led a kind of predatory life, fishing and shooting wild fowl, a lazy, lawless existence, almost in a state of nature. They kept a few geese, some sheep if well off, and perhaps even a horse. They had freedom to range over a large tract of land, which they had hitherto called their own; and any change which would compel a settled and labourous life appeared to them odious, and they opposed it with the vigour that an open air career had given them.²¹

In our day and age these would be called lifestyle arguments. Vermuyden was promised one-third of the reclaimed land for himself, but he had to contend with various kinds of sabotage from the commoners. Similar incidents occurred when the fens in Cambridgeshire were drained.

The early enclosures proceeded by agreement among those who shared the common field. Undoubtedly some of those who “voluntarily” acceded to an agreement had their hands forced by those who had more at stake and were more powerful; indeed there are stories to this effect.²² The first recourses to having Parliament approve of enclosures were made in order to overcome the resistance of a minority. Were they just recalcitrant, or did they stand to lose from the process? After 1700 the process of having Parliament approve of enclosures became more and more frequent. That enclosures brought considerable economic benefit can be concluded from the facts that recourse to Parliament was expensive and not all petitions

succeeded. In addition, hedges had to be planted, and sometimes ditches had to be dug. It appears that the parliamentary procedure provided some safeguard against unfair treatment of those who were affected by the process; however, those who had least wealth also could least afford to plead their case before Parliament.²³

The increased involvement of Parliament finally resulted in a general enclosure act being passed in 1801. Enclosure commissioners were appointed to oversee all enclosures. One of their tasks was to make sure that the division of the land was fair. This probably strengthened the hand of those who had least wealth; the commissioners investigated each case and held hearings on the spot. Practice could, however, differ. One thorny question was the treatment of those who had no legal titles to the common but had used it nevertheless, living nearby. Sometimes the commissions regarded their interests as legitimate, sometimes not. Increased recourse to the commons by such landless trespassers may in fact have been one reason for enclosure. Some contemporary commentators had harsh words about them: "The men who usually reside near a common are the depredators of the neighbourhood; smugglers, sheep stealers, horse jockies and jobbers of every denomination here find their abode."²⁴ Not all contemporary observers would have agreed that the poor were well served by preserving the commons. One put it this way: "Where wastes and commons are most extensive there I have perceived the cottagers are most wretched and worthless and accustomed to rely on a precarious and vagabond subsistence."²⁵ A description, *mutatis mutandis*, of some open-access fisheries of our time? Today we would call this a poverty trap.

As time went on, considerations other than agricultural productivity came to have a bearing on the enclosure process. The growth of congested cities, and especially London, created a need for open spaces for recreation for townspeople, it being "much better for them to have such places left open to them, than to be shut out and left to no other resource than the alehouse."²⁶ In the latter half of the 1800s opposition to enclosures grew for precisely this reason, leading in 1865 to the formation of the Commons Preservation Society. We may detect here a certain parallel with latter day developments with respect to creation of exclusive use rights in fisheries, particularly in the United States. As public use aspects of fish resources have become more prominent (recreational fisheries, fish as wildlife) the development toward exclusive use rights has slowed down,

these being instrumental for raising commercial productivity but not for other purposes.

The enclosures were controversial; many were concerned that they made the rich richer and the poor poorer, although few probably doubt their wealth enhancing effect. It has been alleged that the productivity gains resulting from the enclosures enabled England to withstand the vagaries of climate variations much better than the subsistence agricultural economies on the continent of Europe, such as France.²⁷

Like the present-day process toward rights-based fishing, the enclosure process had its strange twists and turns and far-fetched arguments. Some felt enclosures would interfere with the fox hunts. One supporting argument was that the hedges would halt the advance of invading armies.²⁸ Legislators could, then as now, be capricious and throw out proposals for no apparent good reason. The first general enclosure bill was proposed by the Committee of the Board of Agriculture in 1794 and passed by the House of Commons but was thrown out by the Lords, who detected an anti-church attitude in the bill because it proposed a conversion of tithes.²⁹ Perhaps it was a vicarious argument; for some reason, some “private interests” were against the bill.

The Scottish Clearances

The clearances in Scotland in the late 1700s and the early 1800s were more brutal than the latter-day English enclosures. The clearances did not require any legislation by Parliament; it was enough for the landowners to discontinue their leases and serve eviction notices on their tenants. Some of the estates in Scotland were almost like mini-kingdoms within the United Kingdom; for a time, the estate of the Duchess of Sutherland exceeded a million acres (over 4,000 square kilometers).

Yet the Highland clearances abound in ironies and paradoxes.³⁰ The Scottish Highlands, even as late as the early nineteenth century, were a Malthusian world where population growth was tempered by recurrent famines. The rural idyll was punctuated by barbarous codes and customs. There is a report of a Highland widow remembering her first two husbands with pride; they had both died an honorable death, being hanged as cattle thieves.³¹ The only way to improve the lot of the Highlanders was through raising the productivity of the land. This required radically new ways in

using the land and a resettlement of many if not most of its inhabitants, either in new towns on the coast or by emigration. What made the problem particularly acute was that the rising demand for wool in the wake of the Industrial Revolution, together with a new breed of sheep, had made the Highlands much better suited for grazing sheep than for any other activity. For this the smallholders and cottagers of the Highlands would only be in the way.

The grandest experiment in reshaping the Highland economy occurred in Sutherland in the 1800s. The Duchess of Sutherland had married Lord Gower, who inherited one of the greatest fortunes in England and was to become known as Lord Stafford. His wealth was brought to bear on the transformation of Sutherland, but with modest returns.³² The Duchess planned to relocate her redundant Highlanders to towns on the coast and to have them engage in fishing and manufacturing. The intellectual fathers of this proposition were two entrepreneurs from the south shore of the Moray firth, William Young and Patrick Sellar. Young was a successful industrialist, Sellar a lawyer educated in Edinburgh and influenced by classical Scottish political economy of the eighteenth century. Their ideas would today be called a win-win proposition. The rents of the land could be increased many times over by replacing the Highlanders with sheep. The lot of the Highlanders could, in turn, be improved by engaging them in more productive work, be it fishing or manufacturing.

This was, needless to say, a good thing for the Duchess to believe in. She wanted greater income from her estate, and she desired to improve the lot of her subjects. But when push came to shove, the Highlanders proved recalcitrant, preferring to go on living in their old and established ways. Many would not leave their cottages voluntarily, and in the end some were evicted through burning their dwellings to the ground. Lives were lost; Sellar was in fact charged with manslaughter and the gallows cast a shadow over him until he was acquitted.

Sellar leased a large tract of land from the Duchess of Sutherland and became one of the most successful entrepreneurs in Britain at the time. His thoroughness in clearing the land of its tenants was undoubtedly boosted by his personal need to get them out of the way; he had borrowed a large sum of money at a high rate of interest and could not afford to lose much time in waiting to stock his farm with sheep. He saw himself as a major

improver, a man of a new and enlightened age, and had little but contempt for the Highlanders' archaic and unproductive ways:

... they lived in family with their piggs and kyloes, in turf cabins of the most miserable description; spoke Gaelic only, and spent their time, chiefly, in winter converting potatoes and a little oatmeal into this manure; and in summer converting this manure again into potatoes.³³

His views on what now would be called restructuring were unambiguous:

... if Ground be unsuited for tillage, it is wrested from the possession of 50 ignorant persons, who keep upon it, God's plants in a state of decay, and His creatures in the most abject and pitiable state of misery; and it is put into the possession of one man; who, if he mean to pay his increased rent, must, and he will guide the whole, to health, happiness and prosperity—the former rude occupants draining together into villages, and they and their descendants prosecuting those branches of industry, for which this particular district or country where they happen to be situated, is best adapted.³⁴

Sellar's outspokenness and success turned him into a celebrated hate figure for all rural romantics and defenders of the old ways and culture of the Highlands. He has been the bogeyman of innumerable stories and movies, and occasional profaning of his grave continues to occur to this day. His antagonists were a sundry lot. Karl Marx, in *Das Kapital*, used the clearances in Sutherland as an outstanding example of oppression and exploitation by agrarian capitalists. One of Sellar's main antagonists and defenders of the old ways of the Highlands was Stewart of Garth, who for a time was a general in the British army and who had much appreciation for the warrior tradition of the Highlanders. He has been described as a relatively liberal leader of his troops, having "found it necessary to have only two shot and one hanged in his entire regime with his regiment."³⁵ Stewart died as governor of Santa Lucia, the profits from his family's slave-operated plantations in the West Indies, as the Caribbean Islands were then called, having been insufficient to secure his finances.

In 1852, after the clearances in Sutherland had passed their zenith, the second Duchess of Sutherland (daughter of the first Duchess and Lord Stafford) hosted Harriet Beecher Stowe, the author of *Uncle Tom's Cabin*, on her anti-slavery lecture tour of Britain. The irony was not lost on Karl Marx, who dabbled as a correspondent for American newspapers at that time. It is possible to find quotations from the first Duchess of Sutherland

which indicate an attitude toward the Highlanders probably not very different from that of benevolent and enlightened slave owners in the antebellum South. The Highlands used to be a fertile ground for recruitment of soldiers, but when her tenants responded unenthusiastically to the recruitment drives to raise an army against Napoleon the Duchess remarked, disappointedly, that the people “need no longer be considered a credit to Sutherland, or any advantage over sheep or any useful animal.”³⁶ In clearing her land for sheep farms, she did not want to disband the peasantry or drive them to emigration, but “a proper degree of firmness” would be necessary, and the clearances would at any rate provide an opportunity to “get rid of them in case[s] of bad conduct.”³⁷

Mrs. Stowe responded vigorously to the attacks on her association with the Duchess, referring to “ridiculous stories” about the Duchess and adding that “one has only to be here, moving in society, to see how excessively absurd they are.”³⁸ Mrs. Stowe’s movements in society did not extend to the Highlands, but no doubt she had hospitality to pay.

Despite their infamy, the clearances in Sutherland were by no means the worst.³⁹ Many of those who were cleared came out better, and certainly their descendants gained. Some settled on the coast and became fishermen; others emigrated to better climes and more fertile soils in Canada and Australia, where, in breaking new ground, the aboriginal inhabitants were cleared away.

But sheep farming in the Highlands came and went. After a few decades, the Highlands became more valuable as a hunting ground for the rich and noble, and sheep gave way to deer. And the crofters gained political clout. They formed a political party of their own and gained great leverage in a hung parliament in 1885. This resulted in the Crofter Act of 1886 by which crofter tenants gained a permanent and inheritable possession of their crofts. The Crofter Act did little, however, to alleviate poverty in the Highlands, and it is regarded by some as having obstructed progress by freezing the tenancy structure of 1886.⁴⁰ However that may be, it is an illustration of how the evolution of property rights is shaped by the power structures in society. In the early days the crofters of the Highlands had little influence in the British Parliament, and the Scottish lairds could ultimately rely on state power to evict their tenants. In a society where the common man had a greater influence, such as the United States of the same period, informal rights of tenants and squatters would have had a

better chance of being recognized. Whether more democratic governments generally are more conducive to a definition and enforcement of property rights promoting economic growth and welfare than less democratic ones is a different question, however.

Enclosures on the Sea

The enclosures and the clearances and the debates they gave rise to have many features in common with enclosures on the sea in our times. Instead of hedgerows and ditches, boundary lines have been drawn on sea charts. But inside the exclusive economic zones of individual countries, fish are often still a common resource for the residents of the countries involved. The tragedy of the commons has certainly not been absent from those commons, not necessarily by way of reducing the total catch of fish but rather through increasing the cost of fishing and foregoing a more productive use of labor and capital. Industry and governments have realized, sometimes belatedly, that there are gains to be made from privatizing the commons. The way this has taken place is through exclusive fishing rights, although usually not of a territorial kind. The debate about this privatization and its effects harks back at what happened during the enclosures and the clearances. Not everyone gains in equal measure. Some perceive a loss and oppose privatization. Recourse has been made to parliamentary processes to seal agreements within the industry (e.g., the American Fisheries Act). Part-time fishermen have sometimes been “cleared” away without any compensation (New Zealand). Academics, journalists and other commentators, not necessarily having any personal stake in the fishing industry, have become engaged in a debate on the perceived unfairness of the private use rights. And there is little doubt that the exclusive use rights have resulted in major gains in efficiency. In fact we only have to substitute the words “fish” and “fisheries” for “land” and “agriculture” to make Gonner’s words from 1912 an up to date comment on present-day fisheries policy⁴¹:

Of even greater importance was the change whereby agriculture from being a means of subsistence to particular families had become a source of wealth to the nation . . . From this point of view the retention of a system which withheld land from its best use was an obstacle to general progress only to be defended by arguments equally applicable to any improvement or invention in a productive process.

The enclosures and clearances and similar episodes have given rise to what has come to be known as the economic theory of property rights.⁴² This theory holds that property rights become established when the benefits of claiming and enforcing them surpass the costs thereof. How the benefits and the costs count depends on the power structures in society at each time and place. The losses of the Highlanders were not a factor to be reckoned with in the clearances. But even if all costs and benefits are appropriately accounted for, establishing property rights over what has become a scarce resource due to technological development can increase the wealth of society. Private property rights will ensure that the object is put to the most productive use and that its future productivity is not jeopardized through excessive use in the short term, provided the rights are good for the long term. One need look no further than to the difference between the way people take care of owner-occupied versus rented dwellings to see how property rights incentives work.

The oceans were the last commons to be enclosed. For the most part, the fish resources of the oceans used to be common property, to be enjoyed by anyone who had the audacity and the equipment necessary to go after them. There were good reasons for this. Fishing technology was for the most part so primitive that the effect of fishing was of limited consequence; the abundance of fish was influenced more by environmental fluctuations in the ocean than any human activity. It may now seem strange, but even as recently as the late 1800s biologists could debate whether fishing had any effect at all on the abundance of fish stocks. The leading British biologist at the time, Thomas Huxley, was firmly of the view that fishing did not much matter.⁴³ The benefits of claiming property rights to fish in the sea were thus of doubtful value. Furthermore, the costs of claiming such rights were high. Navies would have had to be assigned to monitor foreign fishing vessels and to drive unauthorized vessels away. The attempts by King Charles I to take a cut from the Dutch fisheries off the coasts of England and Scotland were not particularly successful.⁴⁴

Even so, exclusive rights to fisheries were claimed in various places around the world. The lords of feudal Japan gave exclusive fishing rights to designated villages.⁴⁵ This, however, was for the purpose of appropriating the fruits of other people's work rather than for managing fish stocks as scarce resources. Interestingly enough, these feudal rights have evolved

into exclusive rights now held by fishermen's cooperatives in the inshore fisheries of Japan, an arrangement apparently quite successful in preventing overfishing and, in some cases, enhancing the productivity of the fisheries through improving fish habitat. In the Pacific there existed in various places exclusive rights to fishing spots.⁴⁶ To what extent this had the effect of preventing overfishing, consciously or not, is uncertain; rather than the fish being scarce it may have been the case that certain spots had better fish aggregations than others so that good location and not fish was a scarce commodity. Such traditional rights have tended to become eroded as cash economies have developed in these places.

Even in Great Britain there were attempts at claiming exclusive rights for the crown to fish out to a distance certainly exceeding 3 nautical miles but otherwise not clearly defined. This is a bit ironic, given the role Britain later played in arguing that everything outside 3 nautical miles was high seas with free access to anyone, but boils down essentially to the elementary fact that nations' positions on international law are simply projections of their national interests. The reason for this claim was perhaps not so much a concern that fish stocks were being depleted by foreign fishermen as a desire to take a cut from the value that they were wresting out of the seas around Britain and to weaken a competitor and a potential enemy. In the 1600s, Charles I, Charles II, and Oliver Cromwell tried to impose fees on the Dutch herring fleet off the coasts of England and Scotland.⁴⁷ They fought three wars with the Dutch, partly over the fisheries issue. Their attempts at establishing a British herring industry came to little, however; the Dutch had superior technology, better access to markets, or whatever that made their fisheries profitable but the British not. For hundreds of years the Dutch sent a veritable armada of vessels to the British Isles for fishing, mainly for herring. In those days the herring fisheries were an important industry. It has been alleged that the herring fisheries were the main source of wealth for the Hanseatic League (Baltic Herring) and the Dutch Provinces of Holland and Zealand in the 1400s and the 1500s.⁴⁸ But the herring fisheries had their ups and downs; the fishery off Scania in the Baltic collapsed in the 1400s, and the herring off Bohuslän, since 1658 a province of Sweden, disappeared in the late 1500s and was not seen again for 70 years. Were there environmental factors at work, or was the fishing technology at this early age capable of engineering a stock collapse, as

happened with the herring stocks in the Northeast Atlantic in the 1960s? It is too late now to tell.

As the fishing technology improved, particularly with the invention of the steam trawler in the 1800s, the signs that fishing could indeed harm the productivity of fish stocks became clearer. By the early 1900s fisheries biologists in Europe generally agreed that fishing did indeed affect fish stocks. The inadvertent fishing moratoria in the Northeast Atlantic brought about by the two world wars provided further evidence that it could do so in a harmful way; fish catches improved and the fish stocks bounced back after the wars were over.⁴⁹ The idea that open access to the sea outside 3 miles was harmful for the fisheries gained ground. A book by Thomas Wemyss Fulton, lecturer at the University of Aberdeen, published in 1911 argued forcefully that the 3-mile limit gave insufficient protection to fish stocks. The book cited cases where English or Scottish fisheries regulations had pertained over areas further out than 3 miles and had in fact been applied to domestic fishermen while foreign fishing vessels could fish up to 3 miles, because of the emphasis Britain put on the 3-mile limit internationally. This gave rise to the possibly first incident of fishing under a flag of convenience; in the early 1900s, trawlers from Hull fished in the Moray Firth in Scotland with impunity under the Norwegian flag, avoiding a Scottish ban on trawling in the firth.

Gradually, certain countries began to claim a wider fisheries jurisdiction than 3 miles. Many countries in fact never accepted the 3-mile limit, at least not for fisheries. Norway and Sweden claimed 4 miles, and Norway enclosed all seas inside its archipelago along the coast and closed two wide fjords: the Vestfjord between the mainland and the Lofoten islands and the Varangerfjord in Finnmark. This was contested by Great Britain, and the case went to the International Court of Justice in the Hague, which ruled in Norway's favor. Iceland also wanted a similar limit and to close off the Faxa Bay, an area with good fishing. Needless to say, the impetus behind these claims was the growing realization that fishing was having an adverse effect on the fish stocks and that foreign fleets had to be displaced to make room for more domestic fishing. After World War II, a process got going by which the international law of the sea would be changed beyond recognition.

Thus, what we in effect have here is a case that fits the economic theory of property rights perfectly. As a resource becomes more scarce, the bene-

fits of claiming property rights exceed the costs of doing so and the time is ripe for enclosure. But the enclosure process is shaped by the way people and states arrange their relationships. The enclosure of the seas was different from the English enclosures and the Scottish clearances. If for nothing else, it had to be because this involved interaction between sovereign states and not one between subjects of a single state.