Just Distribution

The distribution of wealth and income is always a contentious issue. But it is also crucially important. Why?

First, people who are too poor will not care about sustainability. Why should they worry about the welfare of the future when they are not even able to provide for their own basic needs? Throughout the world, the excessively poor are forced to mine soils, clear-cut forests, overgraze grasslands, and tolerate excessive pollution just to survive. And as we have seen, the impacts of these activities are not merely local; they have global consequences.

Second, people who are excessively rich consume large amounts of finite resources, possibly depriving future generations of the basic means of survival. Even the economists most reluctant to make interpersonal comparisons cannot deny that the marginal utility of consumption for those below subsistence is far higher than for those buying increasingly frivolous luxury goods.

Third, if we care about sustainability, we care about intergenerational distribution. We do not want to force the future to live in poverty simply so we can consume more luxuries. Yet what ethical system can justify a concern for the well-being of those yet to be born, while not caring for the well-being of those alive today?

Finally, we know that the economic system cannot grow forever on a finite planet. We must limit growth to ensure the well-being of the future, but one cannot ethically tell poor people they must continue to suffer deprivation to ensure that the future does not suffer. If the pie must cease to grow, then we are ethically obliged to redistribute it.

If distribution is so important, then why is it so contentious? Many people believe that in a free market society, people have wealth because they have earned it, and it is unjust to take from people what they have

earned with the sweat of their brows. We agree that in general distribution policies should not take away from people what they have earned through their own efforts and abilities. However, people should not be able to capture for themselves values created by nature, by society, or by the work of others. And they should pay a fair price for what they receive from others, including the services provided by government, and for the costs they impose on others. In addition, we must recognize that a less unequal distribution of resources may generate public goods such as economic stability, lower crime rates, stronger communities, and better health (as discussed in Chapter 15), and society should pay for public goods. If we follow these principles, the resulting distribution should be both just and sustainable.[1]

Distribution must focus on both income and wealth, and on market goods as well as nonmarket goods. Policies that provide more money for government from higher-income and wealthier individuals can further improve distribution by allowing governments to cut taxes for the less well-off, or by funding public goods projects that benefit everyone. Policy makers have devised many plans to achieve distributional goals, both within and between nations. Some have proven successful, some not. We now review some policies designed to achieve a more just distribution.

Caps on Income and Wealth

Must we set a maximum individual income? At first glance, many people consider this type of policy an unwarranted intrusion on individual liberties. What right does the state have to take what someone has earned with the sweat of her brow? Income and wealth are the "just deserts" of hard work. From this viewpoint, income caps are unjust.

However, on a finite planet subject to the laws of thermodynamics, if some people consume too much this generation, they will reduce the resources available to future generations. This means that in the future, society may be worse off than it is today, and people may have to work harder than the current generation to consume even less. In this case, a sense of obligation toward future generations demands that society as a whole reduce consumption so that future generations have the same opportunities to be rewarded for their work as the present, the same opportunities to receive their "just deserts." However, to demand that society as a whole reduce consumption yet not to demand that the wealthiest members of society also do so is a difficult position to defend.

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[1]An unsustainable outcome would be an unacceptable cost for future generations.

Box 22-1 Wealth and Power

Many wealthy people earn far more than they could conceivably consume. If Bill Gates invested all his wealth in inflation-indexed government bonds with real yields of 3%, which is probably as close as one can get to a risk-free investment, he would be earning over $3 million per day.[a] Many of the world's richest people earn more than they or their offspring could conceivably spend. Why would anyone accumulate wealth if they do not intend to consume it? The only reasonable answer is to amass power and status.

Certainly, it is difficult to argue that wealth does not bring power in existing political systems. While many people argue that the inequitable distribution of wealth is acceptable, in democratic countries, far fewer say the same about inequitable distribution of power.[b] And the power that rewards the accumulation of wealth is readily used to generate yet more wealth and hence more power, in a vicious cycle. For example, it is painfully clear that corporate donations to the political parties in most countries are not made to strengthen democracy, but rather to promote legislation that provides greater economic advantage for the contributors. How else can we explain the fact that so many major corporations contribute money simultaneously to two politicians running against each other for the same office? By seeking economic advantage through political influence, wealth undermines market forces and the beneficial outcomes they are capable of generating.

Strangely enough, most Americans remain opposed to income caps.[c] Americans and citizens of many other capitalist democracies seem to have two completely incompatible core beliefs: We have the right to a democratic government, and the right to become richer than Midas. However, as Supreme Court Justice Louis Brandeis reportedly said, "We can have a democratic society, or we can have the concentration of great wealth in the hands of the few. We cannot have both."

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[a] *At the time of this writing (November 2001), Bill Gates topped Forbes list of the world's richest people for 2003, with a net worth of $40.7 billion.*

[b] *R. Lane,* Market Justice, Political Justice, American Political Science Review *80(2): 383–402 (1986).*

[c] *Ibid.*

Is there any harm in accumulating wealth simply for status? There is, for two reasons. First, people generally exhibit their status through conspicuous consumption, which increases scale. Second, status is measured relative to others' positions and is thus a zero sum game. Everyone's status in society cannot increase. Therefore, if I work hard to accumulate wealth and increase my status, I am reducing the status of others relative to me. In order to maintain their status, they will have to work harder as

well, sacrificing leisure time, time for community, and time for family. If we all worked twice as hard to increase our status, no one's status would change, we would all have less time to pursue other goals, and we would consume more natural capital. Status through wealth accumulation can turn into a kind of arms race in which we all work harder and become worse off.

Conspicuous consumption is therefore a negative externality, and people should pay for the negative impacts it imposes on others. A progressive consumption tax would help redistribute resources, and by taxing a negative externality, it would lead to a more efficient allocation of resources as well.[2] Empirically, in the wealthier countries, there is evidence that people are growing less satisfied with life instead of more satisfied, in spite of continuing dramatic increases in national wealth.[3]

THINK ABOUT IT!
Can you explain how a progressive consumption tax could even make the wealthy better off?

Policies for capping income might also include a highly progressive income tax that asymptotically approaches 100%, more direct limits on how much someone can earn, or relative limits that establish a legal ratio between the highest and lowest income allowed. Progressive income taxes are used worldwide. Many economists claim that such taxes are a deterrent to economic growth. However, economic growth in the U.S. was quite high during the 1950s, when the highest marginal federal tax bracket was 90%, compared to less than 40% today. If capping income is, in fact, growth-inhibiting, such a policy would support policies aimed at limiting the scale of the economy.

Policies for capping wealth could include a progressive wealth tax, as currently exists in a number of European nations. People already pay taxes on real estate, which is a form of wealth, so why not extend this to all wealth, particularly the forms that are highly concentrated among the wealthiest? Very high inheritance taxes would also help, as an estimated 46% of accumulated wealth is directly inherited.[4]

Many people would object that progressive taxes take a disproportionate amount from the rich, and therefore do not meet the criteria we discussed at the beginning of this chapter. However, governments generally provide most of the infrastructure and institutions that allow businesses

[2]R. Frank, *Luxury Fever: Why Money Fails to Satisfy in an Era of Excess*, New York: Free Press, 1999.

[3]R. Lane, *The Loss of Happiness in Market Democracies*, New Haven, CT: Yale University Press, 2000.

[4]G. Alperovitz, Distributing Our Technological Inheritance, *Technology Review* 97(7): 30–36 (October 1994).

to thrive and people to grow wealthy. Would Bill Gates, Warren Buffet, and other billionaires be so wealthy if they had been born in sub-Saharan Africa? In addition, political philosophers have long argued that one of the dominant roles of government is to protect private property. Clearly then, the more private property someone owns, the more they benefit from the services of government, and the more they should pay for those services.[5]

Another argument against income caps is that they are also harmful to the poor. From this viewpoint, allowing unlimited accumulation of wealth creates incentives that increase total production and employment opportunities and make the worst off better off than before. Capping income for the wealthiest reduces the opportunities for the poorest to escape poverty. If this is true, then how do we explain the productivity and relative absence of poverty in northern Europe, where taxes are very high?

Minimum Income

Many countries, including the U.S., have instituted policies intended to guarantee a minimum income. These policies can help achieve sustainability by ameliorating poverty, as well as by reducing the gap between a society's richest and poorest members. Moreover, minimum income policies are justified because they can help provide a number of other public goods. In Chapter 16 we showed how economic recessions can have positive-feedback loops. Something causes consumption to decline. People buy less, so firms produce less and lay off workers. Laid-off workers consume less, so firms again reduce production. In the presence of a minimum income, even when people are laid off, they will continue to consume. Indeed, those with the lowest incomes typically spend the highest percentage of those incomes on consumption. A minimum income helps break the positive-feedback loop that causes economic recessions, and a more stable economy can benefit everyone. In addition, abundant evidence links income disparity to crime, violence, and other public bads (see Chapter 15). A minimum income may not eliminate these problems, but it can help reduce them, and therefore we favor such a policy.

Neoclassical welfare economics, whose foundations are utilitarian philosophy and diminishing marginal utility, as we saw in Chapter 8, implicitly calls for the elimination of poverty. If the goal of society is to maximize utility summed over individuals, and wealth and income offer diminishing marginal utility, then clearly an additional unit of wealth for a poor

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[5]We are glad to report that Warren Buffet and Bill Gates, Sr., are on record as vigorously agreeing with the proposition that society contributes the conditions in which individuals can earn great wealth and that such individuals should be willing to pay significant taxes, especially estate taxes. See W. H. Gates and C. Collins, *Wealth and Our Commonwealth: Why Americans Should Tax Accumulated Fortunes*, Boston: Beacon Press (2003).

person provides more utility than the same unit would provide for a wealthy person. Economists reluctant to accept this conclusion have asserted that different people have immeasurably different capacities to enjoy (or suffer?) and hence we cannot make interpersonal comparisons of utility. Thus, many economists have focused on maximizing production rather than utility, which effectively skirts the distribution issue.[6]

On the other hand, it is clear that, on average, a unit of additional income would benefit someone living in absolute poverty more than the same amount would benefit a millionaire. People may have different capacities for enjoyment at some level, but we are very alike in our suffering—we are all poisoned by the same toxins, made ill by the same germs—and our biological subsistence needs are the same. The additional utility when one moves from below subsistence needs to above them is obviously immense.

Curiously, most Americans profess to believe that the current distribution of income in the United States is unjust, yet they remain reluctant to provide income to those who have not "earned" it. However, the "just deserts" argument is based on the assumption that people are paid according to their contribution to society. Yet the last two centuries have seen a fairly steady upward trend in real incomes. This is not so much because people make more substantial contributions to society on their own, but because they benefit from past contributions to productivity. In other words, many people are awarded more than their just deserts already, so why not do the same for the worst off?

The specific policy approaches to ensuring a minimum income are more debatable than the need for some policy. The most commonly employed policies are:

1. Welfare programs, in which the government provides direct monetary or material aid to the poor.
2. Unemployment insurance for the unemployed.
3. Minimum wages and negative income taxes for the employed.

These approaches can play a role in ensuring minimum incomes, but such simple transfers are probably not the best approach to ending poverty for either society or the recipients of such transfers.

Among traditional approaches to a minimum income, many ecological economists would argue first for equal opportunity in education, job access, and job advancement, followed by guaranteed jobs at a living wage, and direct transfer payments playing a role only when necessary. In addition, we believe that people have equal entitlements to wealth created by nature and by society, independent of the entrepreneurial ability of the in-

[6] J. Robinson, *Economic Philosophy*, Garden City, NY: Doubleday, 1964.

dividual. Distributing this wealth equally would provide a minimum income. This involves other, less conventional approaches, which we now explore by looking at income as returns from factors of production.

Distributing Returns from the Factors of Production

In order to take a systematic look at income distribution, we recall from Chapter 15 that there are four sources of income: wages, profits, interest, and rent. Wages are the returns to labor, profits are the returns to entrepreneurship, interest is the return to capital, and rent is the return to land and other natural resources. Most efforts at distributing income focus on returns to labor, while the greatest disparities in income are actually the result of the other factors of production. We now turn our attention to distributing the returns to capital and the returns to natural capital.

Distributing the Returns to Capital

Financial capital, including equity in productive assets, is highly concentrated both within and between nations. The United States probably offers the most egregious example among the developed countries. As reported in Chapter 15, by the late 1990s, the richest 1% of Americans controlled 95% of the country's financial wealth,[7] up from 48% in 1989. Thus, even though returns to capital (productive and financial) are responsible for less than 30% of income in most developed countries, almost all of that income flows to a small sliver of the population. Between 1997 and 1999, the wealth of the Forbes 400 richest Americans grew by an average of $1,287,671 per day per person. In contrast, between 1985 and 1997, the net worth of the bottom 40% of households declined 80%.[8] Returns to financial wealth, profits, and interest are a major factor in the income disparities seen in the U.S. and many other countries.

Capitalist systems are presumed to be populated by capitalists, and capitalists are the individuals who own the capital. Yet in most so-called capitalist nations, very few people are actually capitalists. Market economies are based on ownership, which is responsible for the impressive productive efficiency of such systems. A broader distribution of capital ownership could enhance the efficiencies of the market economy, and if done correctly, it could actually increase the ability of the system to

[7] J. Gates, *Democracy at Risk: Rescuing Main Street from Wall Street—A Populist Vision for the 21st Century*, New York: Perseus Books, 2000. Gates cites E. N. Wolff, "Recent Trends in Wealth Ownership," paper for Conference on Benefits and mechanisms for Spreading Asset Ownership in the United States, New York University, December 10–12, 1998.

[8] Gates, op. cit. Since the net worth of the bottom 40% of households is small, it does not take much of an absolute decline to reduce it by 80%. Nevertheless, the figure is dramatic.

provide important nonmarket goods and services. These claims demand some justification.

A good place to start might be an analogy with land ownership. Numerous studies have shown that land worked by an owner with secure title is more productive than land worked by sharecroppers or wage laborers.[9] This makes sense. Making land productive requires investments in its productive capacity. A sharecropper or squatter will have little incentive to invest in the productive capacity of his land, and a wage laborer even less. In the case of the sharecropper, returns on the investment must be shared with the landowner, who at any time is able to evict the sharecropper. A squatter also cannot be certain that he will retain control of his land a year hence, and will not risk investing resources in the presence of such uncertainty. These points are widely accepted by economists and are considered ample justification for land ownership by the individual.

Yet the labor force in industry may have even fewer incentives to increase productivity than sharecroppers. What incentive do wage laborers have to do any more than the minimum required to keep the job, especially in jobs where managers have little chance to distinguish between the productive capacity of different workers? Workers have the most familiarity with the work they do, and in many cases may therefore have the best insights into how to do it faster, better, and cheaper. However, if there are no immediate benefits for the worker from more efficient production, why should she waste her time thinking about how to achieve it?

In addition, as we have pointed out, work is where many of us spend most of our waking hours. Economists typically consider work a disutility to be endured only to gain access to the material goods that provide us with utility, but there is no reason this should be the case. An economic system should not be devoted to the most efficient means of producing material goods, but rather to the most efficient means of producing human well-being. Most owners of capital concentrate on maximizing profits. It is rarely the case that profit maximization alone will create working conditions that generate the greatest worker well-being.

Imagine a company in which the workers own significant shares of stock. Such programs, known as Employee Shareholder Ownership Programs (ESOPs), are already widespread throughout the world. In ESOPs, workers do not manage the company, but they do have the same influence over management decisions that shareholders enjoy. Under ESOPs, worker income is composed of wages plus profits on stocks. Workers have much more of an interest in the profitability of the company. If there are

[9]E.g., A. Brandão, P. Salazr, and F. G. Feder, Regulatory Policies and Reform: The Case of Land Markets. In C. Frischtak, ed. *Regulatory Policies and Reform: A Comparative Perspective*, Washington, DC: World Bank, 1995, pp. 191–209.

mechanisms through which workers can make suggestions, it is in the workers' self-interest to think about ways to improve production. Workers are also concerned about how other workers perform, as it now affects their income as well. The net effect is usually an increase in productivity. If the worker-owners control a large enough share of the stocks, they are likely to work toward making the workplace a more desirable place to be, a place that satisfies a variety of human needs. Rather than an adversarial relationship between workers who want only benefits for themselves and capitalists who desire only profits, worker-owners will strive for a balance between the two. If measured in terms of the ability to satisfy human needs, efficiency is likely to increase under worker-ownership, though material production may not.

It is worth mentioning that corporations often offer substantial stock options to CEOs, with a rationale similar to ESOPs. Because CEOs do not own the companies they manage, they may try to manage a company to maximize personal benefit rather than corporate benefits. If stock options form a substantial portion of CEO salaries, then what's good for the corporation (at least in the short term, and as measured by stock value) is also good for the CEO. The problem is, as we have recently seen with the slew of corporate accounting scandals (Enron, WorldCom, and others), some CEOs may focus too hard on the short run and only on the value of stock. Stock values can be inflated through accounting fraud, and CEOs often have enough information to bail out before the crash. In addition, this type of "ESOP" generally aggravates the existing gross inequalities in income and wealth distribution.

Expanded ownership opportunities can also help address externalities. Many industries generate considerable pollution with highly negative impacts on the local population. If owners live far away, they will seek to maximize profits and in so doing, may ignore these negative externalities to the extent allowed by law. What happens if instead sufficient ownership of the industry resides with the local population to give them influence in management? The local population will strive for a balance between the negative externalities and the profits. In effect, the negative externalities have been internalized, a necessary condition for an efficient solution. Transaction costs will be reduced to those of coordination among shareholders, which exist in any publicly owned firm. Such outcomes can be achieved through Community Shareholder Ownership Programs (CSOPs).

An additional problem with ESOPs and CSOPs is concentration. Economies evolve, and as part of that process, firms go bankrupt, no matter how well they are run. If individuals have all their capital invested in one firm, a bankruptcy can have devastating impacts on their well-being.

Mechanisms for Distributing the Ownership of Capital. Broad-based ownership of capital may be an effective tool for improving distribution, increasing the efficiency of the economy in satisfying human needs, and in internalizing externalities. The question is: What policies will help achieve this goal? Simply taking ownership rights away from current owners and handing them over to workers is likely to be unfair and is in any case too radical, departing from our principle that we must pay attention to initial conditions. More feasible alternatives abound, but we will only touch upon a few of them here. First, productive assets wear out and must continually be replaced. Working toward broader ownership does not require that we directly redistribute existing property, but rather that we change ownership patterns for new capital. Second, not only do mechanisms for achieving this exist, but they have been tested in numerous countries and have received support from across the political spectrum.[10]

ESOPs are perhaps the most widely used system for broadening ownership patterns in capitalist countries. In the U.S., by 1996 some 9 million employees were participating in ESOPs, who controlled about 9% of corporate equity in the country. In the case of United Airlines, pilots led a worker coalition to purchase 55% of existing stock to increase their say in managing the company. (The company is currently in bankruptcy proceedings—a good warning against putting all your eggs in one basket!) In other companies, workers are awarded stock as a benefit, perhaps in place of a profit-sharing plan. In yet others, workers may be awarded stock to defend against a hostile takeover by other corporations (workers often lose their jobs in such takeovers, and may therefore be reluctant to sell their shares). Some corporations sell stock to workers to fund expansion, or even takeovers of their own. A number of tax incentives and other subsidies have been used to encourage ESOPs.

Given the advantages of more broad-based capitalism, there are a number of other feasible strategies governments could use to encourage this phenomenon. Government contracts, purchases, licenses (e.g., for public airwaves), and privatization programs could all show preference for companies that promote broad-based ownership.[11] Existing loan subsidies, such as loan guarantees many governments offer to purchasers of national exports, could be reconfigured to benefit only companies promoting broad-based ownership. National and international development banks could offer preferential loans to such companies. Innumerable other examples of corporate welfare exist and could similarly be channeled toward

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[10]E.g., right-wing U.S. President Reagan supported ESOPs, as did Robert Reich, the left-wing Secretary of Labor under President Clinton. J. Gates, *The Ownership Solution: Towards a Shared Capitalism for the 21st Century*, New York: Perseus Books, 1998.

[11]Privatization, the sale of public (government) assets to the private sector, has been occurring at a breakneck pace throughout the world, often as part of IMF structural adjustment programs.

creating capitalists. Another requirement would be to train people how to become capitalists and manage capital. Public schools in most countries train people to become workers, but not owners.[12] In sum, capitalist societies need more capitalists!

Distributing the Returns to Natural Capital

Ownership of land and other natural capital is also quite concentrated throughout the world. While the factor share of rent is generally calculated to be only 2% of income, this calculation ignores two major sources of returns to natural capital. First, returns from the extraction of natural resources are often classified as profit, when in reality most of the returns are actually rent. (Recall that rent is the profit above and beyond what is required to supply the resource. The supply of nonrenewable resources is fixed, and the sales price of many renewable resources is often higher than would be required to supply the market.) Second, many of the returns to natural resources are in the form of hidden subsidies. For example, when an industry pollutes water or air and is not required to pay for the costs this imposes, the industry is capturing the returns to the waste absorption capacity of the environment.

Ending Public Subsidies. When the state owns the resources in question, extractive industries are typically required to pay royalties on those resources. In many cases, these royalties are quite small. The state should be able to charge a royalty equal to the scarcity rent.[13] By spending the royalty on public goods or using it to reduce taxes, the state can use rents to improve the distribution. In some primary industries, government subsidies to natural resource extracting corporations can be quite blatant. A number of examples from the United States illustrate this point.

Under the Mining Law of 1872, corporations can purchase the surface and mineral rights to federal land for $2.50–$5.00 per acre, depending on the nature of the mineral deposit.[14] This law was originally designed to provide incentives for people of European descent to settle the American West, but now it is little more than a giveaway to large corporations, many of which are not even from the U.S. Publicly owned rangeland is frequently leased to big ranchers at a fraction of the fair market value.[15]

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[12]These and other policies are described in greater detail in Gates, *The Ownership Solution*, op. cit.

[13]D. M. Roodman, *The Natural Wealth of Nations: Harnessing the Market for the Environment*, New York: Norton, 1998.

[14]M. Humphries and C. Vincent, CRS Issue Brief for Congress: IB89130: Mining on Federal Lands, May 3, 2001. National Council for Science and the Environment. Online: http://www.cnie.org/nle/mine-1.html.

[15]B. Cody, Grazing Fees: An Overview. CRS Report for Congress, 1996. Online: http://cnie.org/NLE/CRSreports/Agriculture/ag-5.cfm.

Rights to timber in national forests are often sold for less than it costs the government to build the access roads to the resource, or at times even for less than it costs to prepare the bids.[16] As a result, many publicly owned forests in the U.S. are logged for timber, even when in private hands logging would not be economically viable.

One of the more controversial pieces of environmental legislation in the 1990s was the timber salvage rider attached to the bill that provided federal assistance to the victims of the Oklahoma City bombing.[17] This legislation sought to "salvage" all trees on national forests that were threatened by insects or fires by chopping them down. The bill suspended environmental regulations for salvage operations and explicitly stated that timber should be sold at a financial loss to the government, if necessary. As most forests are at some risk from insects and fire, the bill was little more than a massive giveaway of public resources.

The federal government is currently pursuing a similar policy, known as the Healthy Forests Plan. While all of these examples are from the United States, similar policies are in place worldwide. Getting rid of all of these subsidies would reduce the loss of ecosystems and their services, save taxpayers money, and generate abundant new government revenue.

Alaska Permanent Fund and Sky Trust. The state of Alaska has taken a direct step toward distributing the income from natural capital. Alaska charges royalties for extraction of its abundant oil reserves. These royalties go into the Alaska Permanent Fund. Interest on this fund is distributed to all residents of Alaska. The idea is that the natural capital of Alaska, or at least its oil supplies, do not belong to corporations, but rather are the common property of all Alaska residents. Putting the money in a trust fund helps ensure that even when the oil is exhausted, future Alaska residents can share in the bounty.

Peter Barnes, an eco-entrepreneur, has proposed a "sky trust" similar to the Alaska Permanent Fund to distribute income from nonmarketed natural capital. He begins by asking: Who owns the sky? His answer is that the sky is a common property resource, owned by all citizens of a country. Yet some people use the waste absorption capacity of the sky more than others. Industries pollute the sky without paying, and some individuals pollute far more than others. Because there are few institutions defending our common property rights to the sky, it is treated as an open access resource, with the well-known results of poor air quality, acid rain, climate change, and other ill effects.

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[16]R. Gorte, Below-Cost Timber Sales: Overview. CRS Report for Congress, 1994. Online: http://www.cnie.org/nle/for-1.html.

[17]A rider is a piece of legislation attached to another, unrelated bill. The bill cannot be passed without the rider.

The sky trust is a bundle of policies designed to address scale, distribution, and allocation. The scale and allocation components are achieved by establishing quotas, then auctioning them off in the form of individual tradeable quotas. We have already discussed how these mechanisms work. All the returns from the sales of these quotas would go into a trust fund, the returns from which would be distributed equally to all citizens in the form of cash. All citizens would receive equal shares, but those who pollute more would pay more, so redistribution would occur.[18] The same basic idea could be used with all natural capital on the assumption that it is a gift of nature to all humans, and not just to a select few.

While this is a very promising policy for a number of reasons, the redistribution mechanism also raises some concerns. The sky is a public good, as are many of the other ecosystem services suitable for sky trust–type policies. Cash payments, in contrast, entitle the recipients only to market goods. In effect, this policy would channel the receipts from rationing public goods mainly toward the purchase of private goods. When people spend the money they receive from the trust fund, it will stimulate the consumption of other natural resources and the creation of waste.

We believe another option should be considered—that of using the trust to fund much needed expenditures on public goods. However, under the current system, with hundreds of billions of dollars spent annually, to convince people that the consumption of market goods is the only path to happiness, accompanied by a pervasive public distrust of government, direct cash disbursements might be more politically feasible than spending the trust on public goods, or even on tax reductions. If direct cash disbursements are necessary to make the sky trust politically feasible, the approach has enough to recommend it that it is still well worth pursuing. As people in the future come to better understand and value the importance of nonmarket goods, perhaps the trust could be turned over to the creation of public goods.

Land Tax. Land is another part of the commonwealth, an asset provided by nature that originally belonged to all citizens of a nation. One can do as one likes with many assets, but nations almost always try to retain sovereignty over their territory. Yet land ownership in most countries is highly concentrated, as are the returns to ownership.[19] In addition, as we pointed out in Chapter 11, the value of Ricardian land is almost entirely the result of positive externalities—land is more valuable as a result of proximity to others. In other words, land values are created by society, not

[18]P. Barnes, *Who Owns the Sky? Our Common Assets and the Future of Capitalism*. Washington, DC: Island Press, 2001.

[19]In the U.S., the richest 10% own 60–65% of land by value, and in Brazil, the richest 1% own 50% of the countryside. Roodman, op. cit.

by the landowner. Land supply is also fixed. With extremely limited exceptions, no matter how high the price, more land will not be created, and no matter how low the price, the same quantity of land will exist. Therefore, all returns to land are economic rent, payment above the minimum necessary supply price. With supply fixed and demand increasing, both the price of land and the rent on that land will increase, leading to increasing concentration of wealth and income.

A line of thinkers following economist Henry George (whose name has cropped up in previous chapters) argue that as society creates the value in land, society should share in the returns to land. While redistributing land itself would be a difficult, disruptive, and politically infeasible policy in many countries, it is much simpler to simply redistribute the rent via land taxes. In the extreme, some proponents of this approach call for a single tax on land, though many interpret this as a tax on all resources that are a gift from nature. In most countries, property taxes fall on both land and the infrastructure on it, and these are two very different types of resources. We should tax that to which value is added, and not the value added. Such a policy has many desirable features.

In terms of distribution, a higher tax on land will drive down the value of land because it drives up the cost of owning it. Theoretically, the price of land should equal the net present value of all future income streams from that land. As a higher tax reduces the income stream, it reduces the price. A land tax also makes land speculation much less profitable. It simply becomes too expensive to pay taxes every year while waiting for land prices to rise. Removing the speculation demand for land reduces land prices even further. Lower prices make land and home ownership more broadly accessible, especially if higher taxes on land are accompanied by reducing or eliminating taxes on buildings on that land. And the entire tax on land will be paid by the landowner—it will not be shifted onto renters because the supply of land is perfectly inelastic. This point is explained in greater detail in Figure 22.1. It is also worth noting that speculative bubbles are a source of economic instability, so a land tax can help stabilize an economy. George argued that almost all business cycles were driven by land speculation.

THINK ABOUT IT!

Can you explain why eliminating profits from speculation will reduce the cost of land? Think in terms of supply and demand.

Land taxes can also help reduce urban sprawl and all of its negative impacts. Those who own land will have greater incentive to either invest in its productive aspects or sell it to someone who will invest. The higher the land value, the higher the pressure to invest or sell. The net result is not necessarily more investment, but rather more investment on the most

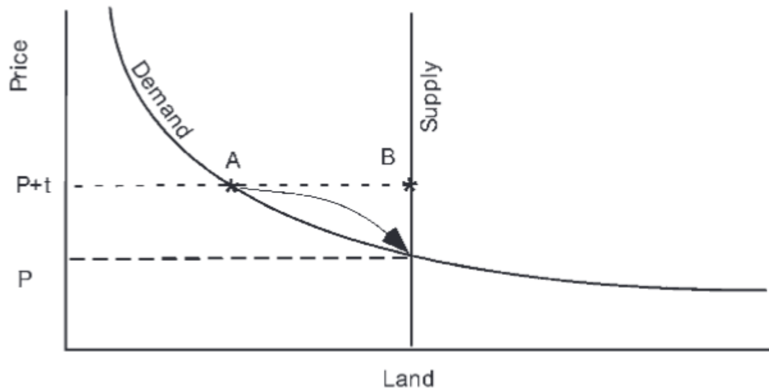

Figure 22.1 • Who pays the land tax? The supply of land is perfectly inelastic with respect to price. This means the same amount will be supplied at any positive price. Demand, in contrast, is sensitive to price, and there is one market price at which supply and demand clear. If land is taxed by amount t, and the land seller tries to pass the tax on to the buyer or renter, raising the price temporarily to P + t, the market will not clear; amount AB will remain unsold. Landowners who were unable to sell or rent at the higher price will therefore be forced to lower their price, driving the price back down to P. This means the government can tax away the entire rent on land, without reducing supply.

valuable land. Land values are higher the denser the population. This means that land in cities will be more intensively developed, reducing the pressures for urban sprawl.

A land tax accompanied by eliminating the property tax on buildings would reduce the cost of supplying buildings, and more buildings would be built. This approach would improve distribution, because poor people often spend the majority of their income on rent, and a greater supply of buildings would mean lower rent. However, to achieve desirable distribution and scale effects, the land tax (or quotas) should extend to all free goods from nature. In this case, new buildings would have to pay taxes (or quota costs) on new materials consumed, while the renovation of older buildings would not, thereby shifting investments into restoration. Currently, restoring older buildings increases their value and hence the tax burden, and the tax deters the activity. Greater investments in restoration relative to new construction will further favor urban centers over new suburban construction.

In most cases, governments provide the infrastructure for suburban developments, which is basically just a subsidy for the people who move to the suburbs. Cities that have pursued high land taxes accompanied by low or zero taxes on infrastructure on that land include Melbourne, Pittsburgh, Harrisburg, and other cities, and it is well established that the taxes have indeed limited sprawl and led to urban renewal. Land taxes are most

beneficial in urban settings. In rural areas, land left in its natural state is already providing ecosystem services and often should not be taxed.

THINK ABOUT IT!
Can you explain why eliminating the tax on buildings will increase the supply and reduce rents?

Additional Policies

Two other distribution policies merit a brief mention. First, if governments recaptured the sole right to seigniorage (the right to print money), they could use that money to improve distribution. Second, we can look at "demand-side" policies. Where do poor people spend most of their income? On rent and health care.[20] We have already seen how shifting taxes from buildings to land could drive down the cost of housing.

Universal, government-sponsored health care, as most citizens of developed countries already enjoy, would also dramatically increase real income for the poor. It would be likely to decrease national expenditures on health care as well, as the U.S. currently spends a higher percentage of its national income on health care than any other country, and still fails to insure over 40 million Americans. Though it is a highly contentious topic, health care is probably as poorly suited to market provision as ecological services.

BIG IDEAS to remember

- Minimum income
- Caps on income and wealth
- Wealth, status, and power
- ESOPs and CSOPs
- Rent
- Public subsidies
- Alaska Permanent Fund
- Land Tax

[20]G. Flomenhoft, "The Triumph of Pareto: Does Equity Matter?" Unpublished working paper, presented at the US Society for Ecological Economics 2003 conference, Saratoga Springs, May 23, 2003.