Dissipative versus Prime Policies:
General Optimality among Efficiency, Equity, and Sustainability

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Abstract

The three basic ends that most people seek in an economy are efficiency, equity, and sustainability. This paper examines the complementarity versus the trade-off substitutability of these three goals. If there are necessary trade-offs, then maximizing one goal dissipates the others; e.g. environmental sustainability can exist at a cost of massive poverty, or there can be fully employed but impoverished labor due to inequities. It is also possible that all three goals are each dissipated. The paper proposes that with optimal policies there are complementarities that provide the possibility of a general long-run optimality for the three ends. The paper also analyzes the public choice aspects of achieving or failing to achieve prime policies.

The Three Economic Ends

Economic textbooks typically posit two economic goals, efficiency and equity. A third goal, sustainability, is increasingly being recognized. The three goals have been compared for specific cases (e.g. Cochrane 2001 for fisheries), and I wrote a brief article on this end triplet (Foldvary, 2006a), but heretofore a thorough general theory of their compatibility has evidently not existed.

Efficiency

There are various meanings of efficiency; the one that is relevant here is technical economic efficiency, a ratio of output to inputs, i.e. the amount of output divided by the total amount of the inputs. For example, the efficiency of a car in its use of gasoline is the ratio of the miles output to the gasoline input. Technical economic efficiency for an economy is the total value of the output, e.g. GDP, divided by the total value of the factor inputs.

The familiar model of such efficiency is the production possibilities frontier, in which production at the frontier is the maximum output given the technology and amount of inputs. Inefficient production is illustrated by a point within the frontier.

Economists usually think of Pareto efficiency, the situation in which one cannot improve the welfare of one individual without reducing that of others. But by shifting production, one can hypothetically increase the output of one individual by more than one reduces the output of another, so a Pareto efficient outcome does not necessarily maximize technical efficiency. Thus the relevant meaning of efficiency for judging an economy is technical economic efficiency.

Kaldor-Hicks efficiency combines Pareto and technical efficiency, in achieving a new Pareto-efficient output with greater technical efficiency when those who have losses are

compensated so that they are no worse off. In its purity, this assumes that the parties agree to the compensation. A wider Kaldor-Hicks efficiency is the proposal that compensation not actually be paid; a hypothetical payment would make the change efficient. But in that case, wide Kaldor-Hicks is not really a Pareto improvement, but just takes us to technical efficiency.

X-efficiency, a concept introduced by Harvey Liebenstein (1966), posits inefficiency due to persons not being maximally effective due to a lack of competitive pressure. But this is really a type of technical inefficiency rather than a separate type of efficiency.

Optimization has two sides, costs and benefits. One can maximize benefits for a given cost, or minimize cost for a given benefit. It is nonsense to state that one maximizes output while minimizing inputs; one or the other must of course be fixed when the other is being optimized. The convention for efficiency adopted in this paper is the maximization of benefits for a given cost.

Economic technical inefficiency occurs when there is an avoidable waste of resources, or a misallocation of resources, with goods not flowing to where they are most wanted by buyers who are willing to pay the costs of production. This lack of maximal utility can also be described as a reduction in the social surplus relative to its maximum. This reduction is commonly referred to as a deadweight loss.

A deadweight loss dissipates resources in two ways. First, it reduces output and investment by shifting labor from production to leisure and by reducing entrepreneurship and risk-taking. The shift from labor to leisure takes place on many margins, e.g. working fewer hours, not taking a second job, a family member not taking a job, less self-employment, and earlier retirement. Second, the deadweight loss reduces the utility from production by shifting purchases to products that are less valued but have artificially lower prices due to differential tax treatment.

The excess burden of taxation is a perfect synonym for the tax-caused deadweight loss. As is commonly known, the deadweight loss from a tax depends on the elasticity of the taxed item as well as the size of the tax wedge between the price paid by buyers and that received by sellers. Other sources of deadweight loss include monopolies, excessive regulations, and a deep ignorance of efficient practice (not knowing that one does not know).

Equity

Equity is the degree of social justice in a society. Equity is sometimes equated with equality, but that implies that some degree or type of inequality is unjust, a proposition that should be a conclusion of an analysis of equity rather than a premise or definition.

Sustainability is sometimes defined to implicitly include equity. For example, Spangenberg (2004: 75) states that the core objective of sustainable development is to "provide to everybody everywhere and at any time the opportunity to lead a dignified life in his or her respective society." But natural resources could be sustained by a process that leaves

many persons poor, without a "dignified" life. Thus, the sustainability of the environment is logically separate from that of equity.

"Social justice" means justice applied to the distribution of wealth and income, as well as the justice of the process of generating wealth, and the justice of initial endowments. Justice itself is the application of an ethic to the enactment and implementation of legislation as well as the legal treatment of alleged violators of laws. The judgment of justice and equity requires the recognition of an ethic by which to judge.

If equity exists as an empirical concept and is non-arbitrary, this implies that there exists an ethic that transcends culture, a universal ethic that is independent of beliefs and values. While there is a huge literature on natural moral law and transcendent ethics, there have been very few attempts to derive a universal ethic. I will briefly describe my own attempt (Foldvary, 1980; Foldvary, 2010).

The ontology of the universal ethic, the epistemics of its existence, sets four criteria for its existence, and then proposes that if an ethic is presented that satisfies the criteria, then the ethic exists, just as if one has criteria for the concept of an airplane, and one presents a machine that satisfies the criteria, then one can conclude that airplanes exists.

The four criteria for the universal ethic that seem evident are:
1. Universality - the ethic applies to all persons.
2. Comprehensiveness - the ethic applies to all acts.
3. Consistency - the ethic is logically consistent.
4. Non-arbitrariness - the premises of the ethic must be empirical, and the ethic must be independent of culture and personal whims, beliefs, and values.

The premises from which the universal ethic is derived are independence, equality, and subjectability. The first two premises were also recognized by John Locke (1690, p. 123): "being all equal and independent, no one ought to harm another in his life, health, liberty, or possessions." Independence means that each person thinks and feels for oneself. Equality means an equal moral worth, there being no inherent biological superior-inferior status among persons. Subjectability means that each person is able to assign to any act one of three subjective moral values: good, evil, or neutral. By definition, a neutral value is one which is neither good nor evil.

Independence and subjectability imply that all values originate in the minds of individuals. Thus the universal ethic must begin with individual subjective values, and then transform them (like a moral production function) into universal-ethic moral values.

A "benefit" is an act which leaves the recipient better off, by his values and judgment. Since all values originate in individuals, there is no warrant for assigning to a benefit the moral value of evil. Since the recipient deems the act to be good, the universal ethic lets this value stand, there being no logical contraction in doing so.

The next category of acts to be considered is an act that does not affect anyone else. Again, there is no warrant for assigning such an act the moral value evil. Whatever one does to

oneself can be assigned the moral value “neutral” without violating logical consistency. It is meaningless to call such acts morally good, since any individual generally does what he thinks is best for himself, so all acts would be “good” if they depend on the actors thinking they are good.

The third category is acts which others deem to be disagreeable. Let an "injury" be defined as an act which some person deems to be a personal evil. Such acts are divided into two subsets. An "offense" is an injury whose personal evil values depend entirely on the subjective views of the recipient. A "harm" consists of all other injuries: these do not depend merely on the biases, views, opinions, and culture of the recipient.

If the u.e. assigned to an offense the value "evil," u.e.-evils would depend on personal views. This would contradict the fourth criterion, that the u.e. must be non-arbitrary, and independent of personal views. Hence, the u.e. assigns to offenses the value "neutral." Personal offenses are neutralized so that the u.e. remains independent of culture.

For harms, if the injury does not originate entirely within a person's mind, it must have also some external origin. The act must involve some penetration from the outside to the inside of a person's domain. Such an act is an invasion. (Note that benefits are also penetrations, but these are welcomed.) An invasion is not welcomed - it is coercive, meaning done against the will of the recipient. Hence, an invasion is a "coercive harm" - both coercive and harmful. Harm done only to oneself is not coercive. Physical harm done to another with that other's consent is also not coercive. The only acts designated as evil by the u.e. are coercive harms.

The universal ethic can be expressed as the following statements (Foldvary, 2010):
1. An act is good if and only if it benefits others.
2. An act is evil if and only if it coercively harms others by initiating a direct, actual invasion.
3. All other acts are neutral.

A moral "right" is merely a different way of expressing an ethic. The moral right to do X is equivalent to the statement that the negation of X is assigned the value of evil by an ethic. For example, the right to speak is equivalent to the statement that the negation of the speech, i.e. the prohibition or restriction of speech, is evil. Moral rights are therefore a function of an ethic.

What have been called "natural rights" in ethical and political philosophy are equivalent to moral rights. Moral rights can be formulated as follows: $R(A) = [u(-A) \hookleftarrow E]$, where A is an act, R is a right, u is the universal ethic, and E stands for evil. Thus, if the negation of act A, denoted as (-A), is assigned the value of evil by the u.e., then a person has a right to do or have "A". For example, since the theft of property is evil, one has the right to own property.

“Justice” is the application of an ethic; acts are just if they are not evil by that ethic, an unjust act being the same as an immoral act, i.e. an act with a moral value of evil. If one accepts the universal ethic as the moral imperative for humanity, then justice is the implementation of the universal ethic by law, including the applications of the u.e. for judging those who are accused of committing evil acts. Since a premise of the u.e. is moral equality, the u.e. implies equality before the law, equal treatment for equal crimes. “Equity” in this context thus means the degree of justice in a society. Equity as judged by the u.e. is hereby termed u.e.-equity.

The universal ethic endows persons with a natural right to their life and liberty; as John Locke (1690, p. 134) put it, "every man has a property in his own person." It follows that each person has a natural right to one's own labor and thus to the wages of labor. Hence, a worker also has a right to the full product of his or her labor, to the wealth produced by one's own labor, and to the income which that wealth yields. This right was expressed by Henry George (1879, p. 334): "As a man belongs to himself, so his labor put in concrete form belongs to him." The just distribution of income must therefore let each worker keep his full wage.

Land, including all natural resources, cannot be claimed by self ownership, but one must have certain rights to it in order to use it. Two principles apply to such rights: historical usage, and equality. The application of the equality premise implies, as Locke (1690, p. 134) recognized, that the earth is "common to all men," but in order to live, one must have the right to appropriate goods that nature has provided so long as "there is enough and as good left in common for others." So long as other land of equal quality is available freely, i.e. free of rent, the homesteading principle can be applied, as it harms no one to take and use natural resources.

Given an equal resource R in two locations, L1 and L2, if a person P uses L1, then another person Q may not claim L1 if L2 is equally available, since this would unnecessarily invade a domain that L1 has already established. P thus has a historic claim to L1 so long as L2 is available.

But if other lands are not freely available, the equality premise implies that the benefit of land, i.e. the original natural resources, be shared as equally as is feasible, there being no claim due to self-ownership. Whereas Henry George wrote of the equal right to the "use" of land, what the universal ethic implies is actually the equal right to the benefit or yield of land. One can identify three principle rights regarding property: transfer, usage, and yield. As George (1879, p. 327) noted, "An equal distribution of land is impossible," hence justice cannot require the assignment of land titles of equal value. Since the amount of land owned and identity of title holders is irrelevant to justice, the transfer of titles is non-harmful and should be unrestricted.

Likewise, if people may have title to lands of unequal value, there can be no equal rights of use. Only the remaining right, to the benefit or yield of land, can be justly equally claimed. This benefit is, in economic terms, the rent that land yields to the highest bidder in a market, i.e. its economic rent, net of the normal expenses of management and an inducement to rent the land to the highest bidder. George recognized this, stating that justice requires only that the rent of land be used for common purposes, leaving unrestricted the exchange of land and its usage (1879, p. 405). This rent would exclude the value of land due to the efforts of those using it, e.g. rental value derived from the services that a private community provides to its members, which would be owned and collected by that community.

If the initial endowments, labor and land, are justly owned, and the process of production avoids theft and other coercive harm to others, then the outcome is necessarily just. Wealth obtained by gift or inheritance is thus compatible with u.e.-equity. Moreover, by the u.e., one may give one’s property to anyone, and so inherited property is justly obtained so long as the wealth was justly generated. Complete equity is therefore achieved when individuals fully own

their wage and the products of their labor, obtain equal shares of the economic rent of natural resources, and are free of any tax or restriction on their peaceful and honest action. With such equity, beyond the equal shares of rent, any inequality of income or wealth is just, since it is justly earned.

While economists typically divide the field into two aspects, normative and positive economics, ethics is inherent not only for normative analysis, but also for positive economics. The concept of a market is central to economics, and a pure free market means that all activity is voluntary for all persons. But the concept "voluntary" implies an ethic that tells us what it means for an act to be voluntary. By the universal ethic, a voluntary act is one which is not evil. Thus the u.e. gives meaning to the concept of a pure free market, as an economy in which there is no legal restriction or cost imposed on acts which do not coercively harm others, and for which institutions generally protect the public from coercive harm.

Since the universal ethic provides the meaning of the market, and the same ethic is used for judging justice, it follows that a pure free market is inherently ethical and just, since the ethic that creates a market is also used to judge it. The rules of a pure free market are those of the universal ethic, hence the pure free market is just, and indeed, any deviation from a pure market is unjust.

Sustainability

In a sustainable economy, any depletion of renewable resources and any diminution of the natural environment requires the payment to society of the full social cost of the damage. Complete sustainability requires that only the periodic increase in the stock of renewable resources be used, leaving intact the stock of the resource. Since natural resource are economic land, which belongs to humanity, the compensation to society for their use or for damage is also u.e.-equitable.

By definition, fixed natural resources do not generate an increase, and so it is impossible to sustain the stock Non-renewable natural resources can be divided into two sets. The first set is natural extractable materials, including minerals and fuels such as oil, coal, and natural gas. Since their use inevitably involves using up the resource, the question becomes whether the speed by which a pure free market would use up the resources is efficient in the long run.

It is well known that common pools such as water and oil in the ground have an extraction-speed and equity problem if there are several independent users, each of them who can extract the resource without limit or fee. The solution to such "tragedy of the commons" is an allocation of property rights, monitoring of the exercise of such rights, and perhaps fees for the use or extraction.

On the more general issue of the depletion of fixed extractable resources, as supply of such a resource diminishes, its price rises, and the higher price reduces the quantity demanded as well as spurring more exploration, the extraction of materials that have a higher extraction cost, and a greater use of substitutes. Moreover, we cannot know what the demand for the resources will be in the future, thus we cannot know whether future generations will be harmed by the

extraction of minerals such as copper. So long as the depletion does not affect renewable resources, or so long as compensation is paid for damage to other resources, the mere depletion of extractable fixed resources in a free market does not seem to be inherently inefficient even in the long run, and the extraction is u.e.-equitable if the mining operation pays for the economic rent of the extracted natural materials.

The second set of fixed resources is the fixed natural environment, including the atmosphere, natural waters (the ocean, lakes, rivers, and aquifers), soil, and topography (e.g. mountains and valleys). The economic difference between the two sets of fixed resources is that the harm to future generations from the extraction of materials is either non-existent or unknowable, whereas there is definite harm from destroying a resource such as the atmosphere..

Let us first consider pollution that remains in the atmosphere indefinitely. Optimal pollution is not zero, but rather the amount for which the social cost of additional pollution equals the social cost of removing more pollution. If it costs more to remove or prevent pollution than the cost of the additional pollution, doing more is not efficient.

However, the social cost of increasing the pollution of the atmosphere can reasonably be considered to be very high, since this includes possible climate change and affect all future generations. A key element of judging the efficiency and equity of the future damage is the use of a social discount rate.

When an individual or firm plans a project, sound planning makes use of the net present value of the future outcome, and it makes sense to use the market's interest rate for the discount rate. It is also sound practice to use the net present value for a government project. However, a social discount rate becomes problematical when it is applied to committing harm to those who will live in the future and are without present-day compensation.

Suppose a criminal sets a bomb to explode today, with a damage of one million dollars. If instead we suppose that the damage is 35 years in the future, and the discount rate is two percent, then using perpetual interest, the known future damage of one million dollars has a present value of half a million dollars. If the bomb has been set and the future damage cannot be undone, should the criminal today pay a compensation of a million dollars or half that? If the criminal is making an actual payment today, then the half million will grow to a million in 35 years. But if the criminal is not actually making a payment, then it is not the case that the damage is only a half million dollars, because the owners 35 years from now will bear a cost of a million dollars.

Thus unless there is an actual payment today that grows by the discount rate, the use of a discount rate to evaluate future costs is not legitimate. The relevant social discount rate for evaluating future costs is zero, if today's compensation is zero. Giving equal weight to present and future generations is also consistent with the premise of moral equality used in deriving the universal ethic.

The problem with a social discount rate is that it is applied to harm that is imposed on another person, and without current compensation, the harm is u.e.-evil. If we project far into

the future with a positive discount rate, then any act today has a present value of near zero. But those who are born in the future will bear the costs in those days, without compensation. They will have been coercively harmed, and thus the imposition of such cost today is inequitable, and thus it is not within a pure free market in which only acts that do not coercively harm others are permitted.

Therefore preventable damage to the fixed natural environment should be prohibited as an evil act. That does not imply zero pollution, since as stated above, optimal pollution is not zero. How much pollution is optimal depends on the long-run effect of the pollution. If some amount of pollution breaks down into harmless particles, then a cap up to that amount is warranted. The social cost of reducing pollution also has to be considered, as it is inequitable to force today's persons to excessively sacrifice their well being for the benefit of future persons.

Fortunately, there is a solution that can reduce pollution with no long-run economic cost. Present-day taxation in the U.S. imposes a deadweight loss of over a tenth of GDP (Tideman and Plassman, 1998). An "efficiency tax shift" (Foldvary, 2006b) would replace taxes with excess burdens (taxes on income, sales, value added and buildings) with efficient taxes on pollution and land value, along with voluntary user fees. If there were to be an "efficiency tax shift," aside from the transition costs, the long-term economic impact would be non-negative, if not positive. How much pollution reduction a complete shift would accomplish is unknown, but at least for today's policy, an efficiency tax shift would postpone the necessity of a trade-off between environmental protection and economic well being.

Renewable natural resources can obviously be sustained when the harvest only takes the annual yield and leaves intact the stock. A lower level of sustainability is when the harvest takes more than the annual increase, but leaves at least enough for the resource to avoid extinction. Since a reduction of the stock leaves less for future generations, the question is first, whether extinction constitutes harm, and secondly, whether any diminution of a sustainable stock constitutes harm

The moral issue is, who is the proper owner of the existence of a species of life, or an underground water resource? Since they are not product of labor, the equality premise makes these renewable resources the property of all persons equally, and "all" includes those who will live in the future. It would be arbitrary to endow those living in some particular time interval a privilege over those in other times. Equity is therefore violated if human activity causes species to become extinct, unless the species itself is inherently harmful, such as disease-causing viruses.

Fish can be harvested without decreasing the stock, but if trees may not be cut beyond the annual growth, then a region may not be able to become developed. If one seeks to expand a city, some of the surrounding forest or meadows may need to be eliminated. But three is no harm to human beings by clearing trees if there are plenty of similar trees and associated wildlife in other places, and if those who cut the trees compensate society for the value of the trees and for the lost wilderness.

The difference between trees and fish is the degree of necessity. Just as the use of a fixed resource necessarily uses it up, the use of land for human settlement necessarily crowds out the

wildlife. But the Lockean proviso should apply: one may chop down trees only if there are other trees equally good left for other persons.

There is thus a short-term trade-off between the using up of a resource and sustaining the stock for the future. In the long run, they two goals are sustainable, since preservation enables the future generations to use up the annual harvest.

Substitutionality and complementarity

The three goals will fist be analyzed pair-wide, and then all three will be brought together.

Efficiency and equity

The typical textbook treatment is that there is a necessary trade-off between efficiency and equity. For example, N. Gregory Mankiw (2009, p. 5) states, "Another trade-off society faces is between efficiency and equality... when the government tries to cut the economic pie into more equal pieces, the pie gets smaller."

What this conventional proposition overlooks is that it is possible to levy a tax that does not reduce efficiency, most notably with a land-value tax. As Gaffney (1994, p. 32) put it, the conventional neo-classical trade-off proposition "overlooks the possibility of a reconciliation." Relative to today's status quo, a tax on land value would enhance both equality and efficiency. Taxing land rent or land value reduces the income inequality that derives from the disparate ownership of land. Taxing land is also at worst neutral, and in many cases enhances efficiency (Tideman, 1999). Land-value taxation enhances efficiency by eliminating excessive land speculation, which can carry land values higher than is sustainable, inflicting speculators near the top with the winners' curse. Secondly, by reducing the price of land, LVT makes those with lower income but with the capacity to pay the interest more able to buy land, with transactions that would not take place with higher borrowing costs due to the uncertainties or imperfections of credit markets.

The taxation of land value, or the collection of land rent, does not constitute redistribution if the proper owners of the rent are the people in the first place. Rent sharing is thus the proper and equitable initial distribution.

Equalization that goes beyond taxing the economic land rent, to tax financial wealth or income from interest and dividends, or high wages, does reduce efficiency. But while this would increase equality, such redistribution would not enhance equity as judged by the universal ethic. Taxing high wages or income from non-land assets would forcibly take away justly obtained property, and would violate equity. Thus by the universal ethic, efficiency and equity are complements. The policy that maximizes efficiency - taxing land value and avoiding dead weight losses - also maximizes equity by sharing land rent and letting individuals keep their full wage and the yields from capital.

Efficiency and sustainability

As analyzed above, a free market can extract fixed extractable resources efficiently, and there is no conflict with sustainability since there is no alternative to using up the resources. For the fixed natural environment, production is sustainable if polluters pay the long-run social cost of the damage they cause at a social discount rate of zero. As with renewable natural resources, there is a short-run trade-off, but no long-term trade-off between the maximum use of resources and the preservation of the resources. Even in the short run, since current taxation imposes a deadweight loss, an efficiency tax shift would enhance both efficiency and equity, so the transition towards efficient taxation would have no net trade-off if the increase in productivity from eliminating the deadweight loss is greater than the transition costs of restructuring production.

Equity and sustainability

Land-value taxation is sustainable, and the polluter-pays principle that achieves sustainability is also equitable. When rent is paid for the use of natural resource, this achieves both equity and sustainability.

General optimality: Equity, efficiency, and sustainability

"Prime sustainability" is the achievement of sustainability that does not detract from equity and long-run maximum productivity.

The pair-wise long-run compatibility of the three economic ends implies harmony and complementarity among the three. Equity by the universal ethic would generate a pure free market in which all human action that does not coercively harm others is unrestricted and not taxed. The sources of public revenue would be land-value taxation, pollution charges, and voluntary user fees. Such a policy would maximize efficiency, there being no deadweight losses. It would establish equity, since the benefit from natural resources would be equalized, while equal self-ownership would be u.e.-equitable. Free-market outcomes would be inherently ethical and equitable because the same universal ethic by which justice is judge also provides meaning to the concept of the market. Finally, the preservation of the stock of renewable natural resources and the environment, or leaving enough for others, makes production sustainable.

It would be a perverse universe that would leave us with necessary trade-offs among the goals we seek. Fortunately, the laws of ethics and economics are benign, in providing us with harmony among the three economic goals most people seek: efficiency, equity, and sustainability. As Mason Gaffney (1994, p. 34) put it, echoing Henry George, “we can have it all.”

The public choice to dissipate

If the above analysis is correct, then public choice theory should explain why governments have not enacted prime sustainability. Intermediate action such as “rent seeking” needs to be explained, and so on down to the root causes. The ultimate cause of social problems has been traced to another triad: ignorance, apathy, and greed (Foldvary, 1998).

Government officials are ignorant of economic concepts, since few of them are economists, but even economists are often ignorant about topics outside their specialties, and the general education they receive in graduate school may reflect mostly the doctrines of a particular school of thought, ignoring (hence ignorant of) insights of other schools.

It is well established public choice theory that special interests seek "rents" or transfers and privileges, and are incentivized to do so by their concentrated benefits, while the public lacks incentives to know better or to take action due to the costs of particular programs being thinly spread among the voters, consumers, and taxpayers.

But we need to dig deeper into why politicians respond to the lobbyists and campaign funds even when they are aware that the program will dissipate the economy. The root cause is greed, both by the influence seeker and by corrupted politicians. Greed is "wanting and taking more than one morally deserves" (Foldvary, 1998). Avarice, as mere wealth seeking, is not necessarily harmful, and may even do social good as a motivator to produce wealth. But transfers from taxpayers to privileged recipients goes beyond mere avarice. It amounts to legal but immoral theft, hence greed, more than they morally deserve. The transfers can take the form of protection from competition as well as money subsidies.

But greed is omnipresent, so the root cause of dissipative policy must also extend to an institutional analysis. Some governments are more corrupt than others, despite the actors all having a common human nature and thus a common propensity if not predilection towards greed. Thus institutional rules which become ingrained in the culture can either block or promote greed.

The world-wide institution that selects government officials and policies is mass democracy, in which a mass of voters elect officials whom they do not know personally, and often with ballots filled with multiple candidates and issue propositions they know little about. Candidates necessarily rely on the mass media, which creates an inherent demand for substantial campaign funds. Much of the supply comes from the special interests, who expect transfers in return. Vote trading or "log rolling" achieves majorities to pass the legislation.

A contrasting institution is small-group democracy, in which the voting cell is small enough so that the candidates can be personally know, and in which campaigns need not be costly. A population of one thousand would have several hundred voters, with typically only a dozen or so seeking office. If some candidates and parties do have high levels of campaign spending, they could be countered with meetings and the distribution of literature (Foldvary, 2002).

With a much lower demand for campaign funds, and with money being less effective, greed would be constrained by the incentive structure of small-group voting. The institutional structure would be more effective than the attempt to treat the effects of mass democracy, such as campaign finance limitations that have not halted the continuing expansion funds raised in political campaigns in the US. An example of relative institutional success is Switzerland, a relatively small country that is divided into cantons that have substantial political power, whereas

many attempts to copy mass democracy in new countries such as Zimbabwe have degenerated into dictatorship, as did even highly developed societies such as the Germany of the 1930s.

Conclusion

The goals of efficiency, equity, and sustainability are complementary in the long run. The policies that achieve these are known to economics, but not to most practitioners, and are not promoted or even recognized by conventional normative economics. Given that the achievement of general optimality is blocked by the transfer-seeking incentives of mass democracy, it seems that a fundamental reform into small-group democracy needs to be achieved first. The first mover most likely needs to be the academic community, which would then influence the media opinion makers, and then the portion of the public that organizes and joins in political movements. However, there are also public choice barriers to paradigm shifts among scholars, and thus the problem of dissipative policies will most likely persist for a very long time.

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