

A WORLD OF TRADEOFFS

Remarks by

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There's always something flattering about being asked to speak at a graduation. Perhaps that's because of the implication that somehow wisdom comes through experience, and compensates, to some extent for the brighter and shinier knowledge of those who are just finishing their courses. This is all the more true when an erstwhile social scientist is asked to speak to a class graduating from the Institute of Technology. Not only must wisdom compensate for current knowledge, but broad scope presumably must compensate for hard facts.

In the good old days, before economics became econometrics, my particular discipline was known as the study of political economy. And before that, in the days of Malthus it was the study of moral philosophy. Indeed, I think that Heilbroner aptly chose the term "worldly philosophers" to describe those of us who through the ages have tried to understand what makes the world of commerce tick.

In any case, whatever my credentials, I am pleased to have this opportunity to share some thoughts with you about the state of the world. That's a rather grandiose thought, isn't it--the state of the world--and obviously I'm only going to be talking about a very small part of it. Yet at the broadest level, my thesis is that we live in a world of tradeoffs; that we seldom have the luxury of choosing between right and wrong, however much we may try to dress up our decisions in that fashion. More often, my own experience tells me, I am forced to choose between the lesser of evils, or at best, between competing claims, each of which has some merit. Obviously, it would be much easier if our options in life were clear-cut: our laws would be simple, and our courts unnecessary.

I'm not just referring to the difficulty we all have in applying principles to practical situations. We know, for example, that we're supposed to tell the truth. But each of us has run into situations in which the unvarnished truth would be the grossest of social faux pas. I need only cite that old slogan, "Even your best friends won't tell you."

Rather, I'm referring to those more complex situations in which we find two or more principles in conflict. However much we may take for granted the Ten Commandments or the preamble to the Constitution, or for that matter, the Boy Scout Oath, we find that these sets of principles can themselves give us conflicting signals when we try to follow one or another to its logical end: Thou shalt not kill, for example, yet we accept self-defense and even sometimes war to preserve liberty.

There are some, of course, who rebel at the thought of conflicting truths. They take up the cudgels for a particular principle, say free enterprise, or the environment, or the great society, or the rights of women, and pursue that cause to the exclusion of all others. At the extreme, we label such people fanatics, whether they take their positions out of a naive belief that only one value in this world really matters, or whether they acknowledge the legitimacy of conflicting claims but believe that the world can be inched in a particular direction only by single-minded dedication to one cause.

There are others who behave as though there were no truths at all, either because they consciously deny the existence of principles (believing that the world is a game of chance) or because whatever

principles they do hold to are so ill defined as to have no obvious bearing on their decisions or actions.

Finally, there are those who believe as I do that we live in a world of conflicting demands and allegiances, who try to establish priorities to guide their judgement in particular decisions, and who accept tradeoffs as necessary. While I would label such people "realists," there's no assurance that they will--or should--inherit the earth. It's quite possible, for example, that those who see the complexities of life become so mesmerized with the dilemma of conflicting claims that they are paralyzed and can make no decisions at all. They become the ditherers of the world, those who see both sides of every issue and give their definitive judgements in terms of "on the one hand, on the other."

Alternatively, the notion of necessary tradeoffs can quickly degenerate into the concept of unholy compromise, where principles are too easily sacrificed in the name of realism. The conflicting loyalties and cynical denial of both laws and principles in the Watergate affair is a case in point.

All of which may simply indicate that even the truth that I am proposing--that the world requires tradeoffs--is itself a slippery truth.

But enough of lofty and abstruse generalizations. I'd like to focus on one particular tradeoff that seems to be gnawing at a lot of people today: namely, the tradeoff between the rights and responsibilities of individuals on the one hand, and the rights and responsibilities of the community on the other. A more concrete way of characterizing this particular tradeoff is in the shifting role of government in our society. Our heritage, as we recall particularly in this bicentennial year, was

that of revolution from an oppressive colonial government, and of an open frontier where survival depended upon self-reliance. In that earlier era, it is fair to say that apart from those few responsibilities assigned to the collective government, the sovereign power lay in the hands of the people themselves as individuals. While there were laws, to be sure, the effective laws were the laws of nature and the laws of the marketplace. It's worth dwelling on this point, because those "laws" served a number of functions:

1. They provided a way of allocating resources efficiently to the highest bidder;
2. They determined incomes--and wealth--more or less according to the economic contributions of those who toiled, and bought and sold;
3. They provided built-in incentives--"He who does not work shall not eat"; and
4. They constituted an "invisible hand" to guide many of the decisions in life, thus avoiding the need for the visible--and some would say heavy--hand of the government.

In that kind of society, government was assigned the minimum role of providing for the national defense, and of establishing and enforcing laws for the protection of the individual, his inalienable rights, and his property.

It doesn't take much perception to know that government today plays a much larger role in our daily lives. Why is it that the tradeoff has shifted so far in this direction? Anyone with a smattering of history could set down a list of forces that have tended to emphasize the community at the expense of the individual. Let me tick off a few:

1. The closing of the frontier, and the shift from self-reliant farmers to employees dependent on managements and on economic forces beyond their control.
2. The growth of population, and the resulting crowding in urban centers that tended to dehumanize the individual.
3. The decline of the family as the focal point for education in the broadest sense, and the welfare of its extended members.
4. With increasing mobility, the decline of the neighborhood, and the growing rootlessness of the population.
5. A concentration of wealth and economic power that distorted the smooth functioning of competitive markets.
6. The recognition that even when markets did behave competitively, they did not always accurately reflect the social costs of such things as pollution, and that market prices therefore were not always good indicators of social welfare or even efficiency.
7. The increasing complexity of society--partly brought about through technological advances--that required job specialization and the end of any possibility for self-sufficiency.
8. The giant strides in transportation and communications that collapsed geographical space.
9. The expanding definition of "inalienable rights." At the outset, these rights were confined to guarantees of freedom of speech and freedom of religion. These freedoms, though priceless, were relatively inexpensive to assure, and the fact that government guaranteed such rights in no

way detracted from the incentives of the marketplace. Gradually, we came to expand our concept of rights to include many elements of what might be called the "general welfare": the right to a meaningful job, adequate health care, adequate housing, or nutrition. These new rights in contrast were expensive (which is not to say that a rich nation could afford them), but there was a distinct danger that the incentives of the marketplace would be blunted as individuals' needs were assured by the government.

As I read this list of changes in our society, my own interpretation is that we can find adequate explanation for the expanding role of government in what might be called basic forces at work in civilization, including of course, the driving force of technological change itself. We do not, in other words, have to postulate a power hungry bureaucracy, consciously encroaching on the rights of the individual to explain this shift or tradeoff. The blunt truth is that the ability of the individual to provide for his own needs has been substantially reduced, at the same time that his remaining freedom of action impinges more and more on that of his neighbor. In this environment, the shift of responsibility from the individual to the community, and hence to the government that represents the community--seems inexorable.

I'd like to take a closer look at this uneasy tradeoff between the rights and obligations of individuals and those of the community in three different settings: first, the scope for individual initiative here in Minnesota; second, the implications of the tradeoff for the future of technology itself; and third, the philosophical justification for striking a balance between the rights of individuals and the rights of society.

My first premise is not particularly startling, but nevertheless should offer some reassurance and encouragement to those of you who are graduating from the Institute: despite whatever you may have heard to the contrary, the encroachment of government in Minnesota has not yet succeeded in killing off private enterprise in this state. I call as a witness in support of this premise John Borchert whom many of you may know as a professor at the University and Director of the Center for Urban and Regional Affairs. In a study that he did for the Commission on Minnesota's Future, he documents the extent to which the standard of living and the expansion of jobs in this state are attributable to the imagination and skill of home grown entrepreneurs. Looking first at the giants of industry, Borchert notes that there were seven Minnesota-based industrial corporations among the Fortune 500 in 1961, and that that number had grown to 13 by 1974. All but one of these 13 were originally established by Minnesotans, a much higher proportion than one could have predicted on the basis of the state's population or wealth.

A similar story can be told about medium sized firms. Of all the cities in the United States with more than one million population, only Boston has a higher ratio of such firms to the local population. As Borchert says, ". . . it appears that the unusual number of large corporations in the Twin Cities garden is not so much a matter of concentrating growth in a few large plants, as it is a reflection of the size and diversity of the seed bed."

This record of entrepreneurial activity is not confined to one geographic region of our state -- 70 percent of the new industrial jobs out-state between 1947 and 1972 were attributable to firms started by Minnesotans.

Certainly one cannot attribute these entrepreneurial successes

to government, but nor do I think that one can ignore the growing role of government in this process. Perhaps what can be said is that government in this state has fairly accurately reflected, and sought to preserve, the values of the residents themselves: the amenities of water and forest, uncluttered rural and urban settlements, traditional family and community values, an open society, and extensive public services, especially education.

I turn now to my second premise: that in technology, as in other areas of society, it's hard to live with government, but it's also hard to live without it -- once again, a tradeoff. And as witness, I'd like to cite Jerome Wiesner, President of M.I.T., who made this point recently in discussing whether the United States had lost the initiative in technological innovation. He said:

"The dominant position of American science and technology was achieved by working on our own problems in a supportive social and economic setting, in an environment which encouraged very competent scientific, educational and industrial organizations to respond effectively to needs and opportunities. Until quite recently the interplay between the private sector and government stimulated the creative forces -- technical and economic -- which fostered the extraordinary innovative character of U.S. industry. Also, during the two decades following World War II, the activities of the Department of Defense provided extra stimulation of the U.S. technical community. If the system isn't being innovative enough now, isn't responding to the problems and opportunities that exist, isn't providing the basis for desired economic growth, we should seek to understand what has changed in recent years."

Wiesner goes on to discuss those changes, most of which, in his view, have worked to retard the incentives for technological advances -- from a naive belief that we can return to nature and dispense with the complexities of our technological world, to the regulatory and patent policies of the federal government that he believes inhibit private investment by reducing incentives and payoffs.

For our purposes, though, it is his comments on the tradeoffs of the marketplace vs. the public sector that are most intriguing. In commenting on the need for sophisticated replacement technologies to deal with the problems of alternative energy sources, sufficient water, safe pesticides, adequate raw materials and food supplies, he says:

" . . . for such new technologies to exist, long-range actions of many kinds are required that go beyond our current capabilities, such as R&D with a long time horizon, intensified exploration, the development of new processes, new industrial facilities, education of a more adequate number of scientists, engineers and managers, etc. In my view, this requires more understanding and much more effective management of our man-made world than it has had in the past, particularly that part which is the responsibility of the government. It also requires assuring that incentives exist for the innovators, especially those in industry, to innovate, even when the returns are deferred for a decade or longer.

"[But] There is a Catch-22 situation here. We obviously need prediction and planning mechanisms adequate to cope with the size, time-scale and complexity of the technological needs of a modern inter-connected society such as ours. This implies

governmental planning and management. Yet . . . our most serious national problem [is] that of learning how to create a society that can . . . more effectively . . . solve the growing number of problems that call for collective action

"Learning occurs mostly through trial and error. Desirable properties for a good learning system include the ability to carry out simultaneously many small experiments and sensitive feedback so that the errors involved with learning are small. The free market satisfies these criteria reasonably when it is working and so has been a very effective learning machine for those things that are appropriate to the marketplace and responsive to individual initiative. Unfortunately, the free market cannot handle adequately what economists call 'externalities' -- pollution, education, social welfare, management of the economy, etc. -- no matter how vital they are, for these require a cooperative rather than a competitive mode of behavior. Here we turn to government. Unfortunately, all governments seem to be poor learning machines. Their feedback systems are insensitive and have very long time-constants. The feedback signals, instead of being simple profit or loss calculations, are usually value judgments, often conflicting among different groups. What are the goals of a given agency or program? Who sets them? Who judges the results? When do you change an obviously failing experiment? If this wasn't trouble enough, in the public sector the scale of experiments tends to be very large and time-constants long; consequently the number of experiments that can be carried out in a given period of time is small.

This makes the learning process very slow. Finally, all of these factors taken together allow (perhaps even require) the errors to become very large before corrective action is taken."

In the area of technology, then, as in other areas of our society, the individual, and in this case even the large firm, has been dwarfed by the size of the problems, and has no place to turn but to big government, with all that that implies.

To sum up, then, we've discussed the fact that the principles we believe in frequently conflict, especially so in their application, and why we must therefore try to state them as clearly as possible, and try to attach priorities to them to guide our judgments in the inevitable tradeoffs. We've also looked at one particular tradeoff -- the shifting emphasis on the rights of individuals vs. the rights of the community as reflected in the shifting role of government and the marketplace -- and pointed to a number of familiar reasons why we should not be surprised that the shift has been in the direction away from the individual and the marketplace, and toward community and government. And we've looked at a couple of specific examples that perhaps indicate (1) that despite this shift, there is still substantial scope, in this state at least, for the individual entrepreneur in the marketplace; and (2) that the tradeoff, in the field of technology and probably elsewhere, is an uneasy one at best.

But there's a different aspect of this tradeoff that I'd like to focus on in closing: namely, that there's an inherent tension or even contradiction in our mixed system of public and private enterprise in this country, a system we can still best describe, perhaps, as a capitalist democracy.

On the one hand, we profess the principle of equality in the political realm: equal rights; one man, one vote; freedom of speech for all, etc. On the other hand, we accept substantial inequality in the economic realm when it comes to income and wealth. Are we hypocrites, as some of our socialist critics charge? I don't think so, but I do think we have to admit that it's difficult to make a case for our hybrid system on grounds of theoretical consistency.

Instead, the case -- and it's a strong one in my view -- has to stand on the results: the marketplace, for all its blemishes, still provides the only system of incentives that effectively organizes productive effort in a democracy. The big tradeoff, as Arthur Okun, my final witness, describes it, is between equality and efficiency. In this context, government can be thought of as tempering the inequality inherent in an economic system of private ownership and market allocation, while still preserving the economic incentives that make the system go.

Other alternatives may sound superficially attractive, but they involve tradeoffs of their own, tradeoffs that are too costly, at least given my particular set of values. Take socialism, for example. Okun sums up his views, with which I agree, the following way:

" . . . On balance, I would expect an American version of socialism to be far less flexible, less innovative, and less experimental than the mixed present system.

"One of the great merits of the existing system is the way it fosters experimentation by letting people play with their own money or with shareholders' money that is voluntarily put at risk. Although rigid bureaucracies often develop in our giant private corporations, far more bureaucratization of

economic life would have to be expected under nonmarket socialism. In particular, in that system, all money would be taxpayers' money and would have to be treated with the same respect, caution, and rigidity that are currently evident in the public sector."

Alternatively, take the idea put forward in that book of short-lived popularity: "The Greening of America" to the effect that competition -- the marketplace -- should give way to cooperation as the organizing principle of society. Again, Okun put it well:

"Efforts to promote equality of opportunity accept an individualistic, achievement-oriented, and essentially competitive economy in which prizes will be given and a variety of hierarchies will continue to exist. On the other hand, some see the contests of modern society as dehumanizing rat races, and their objective is not to make them fairer but to eliminate them. They want fewer races, and more dances that feature cooperation and fraternity. It may well be desirable to effect some shift in the mixture of competition and cooperation. But a major deemphasis of competition means forgoing individualistic incentives; and that, in turn, involves either a tremendous sacrifice of efficiency or else the creation of alternative incentive systems. Perhaps people will work and produce in order to serve humanity, guided by a love for all mankind as brothers and sisters. But it remains to be demonstrated that such a spirit can motivate common mortals and not merely saints. Properly indoctrinated, people can be induced to

work for the greater glory of the state or of the leader of the state. Reflecting traditional values, however, most Americans would rather run races for their own prizes than run errands for their leader's glory."

In the final analysis, I'm prepared to accept the costs of market inequality -- tempered by social justice -- as the price for efficiency in organizing society, since I believe, with Okun and others, that those alternatives I know anything about entail the higher cost of a much more pervasive -- and oppressive -- government. Okun concludes his essay on this subject as follows:

" . . . the market needs a place, and the market needs to be kept in its place. It must be given enough scope to accomplish the many things it does well. It limits the power of the bureaucracy and helps to protect our freedoms against transgression by the state. So long as a reasonable degree of competition is ensured, it responds reliably to the signals transmitted by consumers and producers. It permits decentralized management and encourages experiment and innovation.

"Most important, the prizes in the marketplace provide the incentives for work effort and productive contribution. In their absence, society would thrash about for alternative incentives -- some reliable, like altruism; some perilous, like collective loyalty; some intolerable, like coercion or oppression....

"For such reasons, I cheered the market; but I could not give it more than two cheers. The tyranny of the dollar yardstick restrained my enthusiasm. Given the chance, it would sweep away

all other values, and establish a vending-machine society. The rights and powers that money should not buy must be protected . . .

"A democratic capitalistic society will keep searching for better ways of drawing the boundary lines between the domain of rights and the domain of dollars. And it can make progress. To be sure, it will never solve the problem, for the conflict between equality and economic efficiency is inescapable. In that sense, capitalism and democracy are really a most improbable mixture. Maybe that is why they need each other -- to put some rationality into equality and some humanity into efficiency."

I can only say, amen, and hope that you, as graduates,

enter upon your respective careers with a clearly defined set of principles (though not necessarily mine);

that you accept as inevitable the tensions among those principles, and the need for tradeoffs in applying them to your own lives, and to life in general;

that despite the lack of obviously right choices, you will not shrink from making decisions; and

that your judgment on balance is sound, so that the principles you profess will in fact be preserved in the midst of change.

