harmful, and, if so, to whom? Rising land values are harmful in the sense that inflation generally is harmful.

Saving is discouraged and development is made relatively less profitable. Under present conditions it is preferable to purchase a 200-acre fully-developed property within ten miles of Palmerston North than a 2,000 acre remote hill country property for the same price, the reason being that it is more profitable to hold a developed property than to increase the productivity of an under-developed property. Clearly, if we are going to increase the volume of pastoral exports it will require resources to be channelled into sub-division, water reticulation, pasture improvement and so on. This movement of land values in favour of urban use relative to exports is harmful in that it will reduce future exports.

The people who are most harmed by rising land values are clearly those who want land. By and large these people are young. Married couples setting up home or intending farmers are faced with an increasing capital barrier. Both groups are liable to become over-committed

servicing the principal and interest, to the extent that productive investment is wasted. In the case of the home-builder, it will result in a poorer standard or smaller home being built than would occur if the building section had cost less.

Thus the main disadvantage of rising land values lies in the barrier it poses to new entrants into farming. If farming is to remain adaptable and vigorous, the industry must continue to absorb young, well-trained and ambitious men. The present situation must tend to increase the average age of farmers and to discourage amalgamation—neither is in the long run interest of farming or for that matter, New Zealand.

Future land values will be determined in the short term by the fiscal and monetary policy of Government. In the long term, the land values will depend on the terms of trade and market access. If the EEC negotiations are concluded so as to deny this country reasonable market access to the enlarged community—then land values will fall along with other prices.

## TAXING OUT POLLUTION

From a report by Dr. William J. Baumol, professor of economics, Princeton University and New York University, as chairman of the New Jersey State Economic Policy Council, to the Governor, State of New Jersey, May 1971.

THE PROPOSAL that the economist makes is a very simple one. He maintains that there is no excuse for supplying expensive resources free. He says that those resources should be provided at an appropriate price just like the resources supplied by private industry. More specifically, he calls for a re-orientation of the tax system, one that does not necessarily increase the overall burden of taxes. An example will help to clarify the issue.

Suppose it were decided that the oil industry were currently paying the right total amount in taxes, but that taxation were to be used to help get the lead out of its products. For this purpose one could reduce by, say, \$0.03 a gallon the tax on unleaded gasoline and increase it by a similar amount on leaded gasolines. This is clearly not punitive. On the contrary, it gives the industry the opportunity to recoup its money by behaviour consistent with social goals. Nor does this procedure constitute a drain on the public budget or a subsidy to industry. Given the efficiency with which private enterprise is able to proceed in the pursuit of profits I suspect the speed of the changeover to lead-free fuels will truly be impressive.

Similarly, in the neighbourhood of airports much can be accomplished by a substantial differential in landing fees depending on the noise level and pollution emission level of the aeroplane.

In the same way, the flow of trash can be reduced by imposing a significant tax on no-deposit-no-return containers, perhaps matched by a reduction in excise tax on items in returnable containers.

Or, to give yet another illustration, there is much to be said for a re-orientation of taxes on rental property which offers some material advantage to the improvement of buildings, and under which the landlord who pollutes his neighbourhood by creating a slum—by failure to maintain his property or by abandoning his property outright—has to pay the cost that he imposes on society.

In each of these cases the basic notion is the same. By giving virtue its just (financial) reward the rules of the game are changed so that industry is induced to accomplish what society wishes of it.

Besides its obvious attractions, this approach has several additional virtues. In many cases, it is virtually self-enforcing. Its instrument is typically the meter rather than the police inspector. For example, the proposed tax on leaded gasoline requires no more than a record of how much of each type of gasoline has been sold, and the tax can be collected just as it is today. The emission of pollutants by a factory can also be metered and billed. There are no crimes to be discovered, no courtroom hearings, and no legal battles over level of fines. Enforcement is consequently not sporadic—it is continuous, predictable to the business planner and consequently, effective. In this respect it differs markedly from the reality of outright prohibition.

The taxation approach to the protection of the environment also has the virtue of longevity. That is to say, because it is automatic, because it is self-enforcing, it will still be effective five, ten and twenty years after it was nacted, when public interest in the subject has waned. A tax on smoke emission which is billed monthly will continue to exert its influence on managerial decisions indefinitely. Unlike a programme dependant on the vigour of a regulatory agency, the tax incentive does not require continued enthusiasm for the cause. It can, thus, transform a transient public outcry into a permanent influence that affects the behaviour of the economy.

The tax approach, at least in principle, achieves its reductions in effluents, in noise, and in smoke in a manner that minimizes the total cost of the changeover. Without assigning quotas to anyone, or interfering in the operations of the individual enterprise, it provides the incentives for each firm to make those decisions which in the aggregate will make the cost of pollution control as low as possible.

To illustrate consider a case where it has been decided to reduce the total influx of pollutants into a river by 60 per cent. Suppose that instead of assigning a quota to each company with a plant on the river, a tax on the discharge of wastes is imposed, a tax sufficiently high to achieve the desired reduction in the pollution content of the river. The firm for which it is very cheap to reduce emissions will find it profitable to cut down on its effluents substantially because, for it, the installation of the required equipment will be less costly than the taxes. On the other hand, the firm for which such a changeover is very expensive will find it cheaper to pay the tax than to undertake a substantial conversion. The first firm may then find it most profitable to cut its discharges by 80 or 90 per cent, while the second company may end up with no more than a 10 or a 20 per cent reduction. Thus, the difficult task of assigning emission quotas to the various plants in accord with the requirements of efficiency is taken care of automatically by the tax incentive approach. It does so without direct interference and without recourse to direct controls.

In sum, the tax re-orientation approach offers a variety of attractive features. It is equitable—it charges only those who engage in the activities that threaten the environment and bases the charges on the extent of the taxpayer's contribution to the environmental problems; it is automatic and self-enforcing; it minimizes the need for enforcement machinery and the temptations for corruption; it does not increase the financial problems of state and local governments; it is effective and makes full use of the productive efficiency of the free enterprise system; its effects are long lived, and it promises to achieve its goals at minimum overall cost to the economy.

Society has been giving away, free, too many of its precious resources far too long. It is not as scandalous as it sounds to decide that everything has its price. The real scandal lies in setting that price at zero or at some token level that invites us all to destroy and to despoil. Unless we recognize the legitimate role of taxation in this area, we may end up with our sense of morality intact but our environment in ruins.

## REPORT FROM THE U.S.



GRAHAM SCOTT

## **Patriotism and Blackmail**

AT THE TIME of writing, the American people are awaiting momentous pronouncements from two new statutory bodies which have been created by the President and which are already under attack as being unconstitutional: the Pay Board and the Price Commission. Following the ninety-day wage-price freeze introduced in August, these two newcomers on the economic scene have been given the impossible task of monitoring all major wage and price increases, establishing "guidelines" and recommending any new legislation deemed necessary.

While the President has been congratulating the country as a whole on its compliance with the Phase I stand-still and pronouncing it a great success, a whole chain of wage claims and price hikes have entered the pipeline. These will come forward for adjudication shortly.

Briefly, the President has proposed that all big unions will have to give the government advance notice of wage claims and other large-scale benefit proposals while all big companies will have to notify the government of any proposed increases in either prices or wages. It is further envisaged that medium-sized organisations will have to report similarly but may not be subject to direct control within limitations to be specified. Small companies, it seems, will be able to please themselves subject to inspection of records and government spot checks. All this control it is claimed can be managed by a staff of about 3,000 inspectors. Already, many people are laughing.

Initially however both sides of industry are giving the President their moral support in public. This in itself is a major triumph, secured by the administration through a peculiar American brand of pride, patriotism and blackmail. The President has gone out of his way in establishing the two review bodies to see that they include a widecross-section of American society. His basic approach has been emotional. Claiming that Americans have only themselves to blame for the nation's economic plight and galloping inflation prior to the "freeze," he has appealed to all in the name of patriotism to participate in reasoned negotiations for the common cause. At a risk of appearing to be either un-American or selfish if they refused, the various sectional interests of the econ-