Editorial —

"The Gut Issue"

"The gut issue" — to use Pierre Trudeau’s phrase — of the modern democracy is Big Government.

The ambit of government in practically all Western societies continues to grow by what appears to be an inexorable progression. Year by year government assumes new or expanded responsibilities; year by year the public sector of the economy lays claim to a higher proportion of the resources of the community. At the start of the 1960’s Sir Robert Menzies said that “the first task was to slow down the massive upward movement of Government expenditure, which in the case of the Commonwealth had been rising at the rate of $200 million a year”. Ten years later Commonwealth expenditure is growing at over $500 million a year.

The great revolution in economic management since Keynes — which has come about almost unnoticed — is that the roles of government spending and private spending have been reversed. With Keynes, public expenditure was the residual, the regulatory factor in total spending. Today government spending is sacrosanct; when the economy is galloping ahead too rapidly, it is private spending that feels the pull on the reins.

Some people are beginning to wonder how big government can grow without destroying the real substance of democracy. How big can government get without undermining the reality of individual responsibility? Is the omnipresent
and omnipotent State beginning to loom up as a menace to the democratic ideal?

The warning which Winston Churchill voiced in 1943 in a famous sentence seems to have even more relevance today than when he said it: "We must beware of trying to build a society in which nobody counts for anything except a politician and an official".

Yet, in spite of the uneasiness many must feel when confronted with the colossus of government, its development has been in large measure a response to public demand. The growth of government has not, in the main, been the result of shrewd, deliberate contrivance by ambitious, power-hungry politicians or scheming public servants. As the individual citizen shifts more and more responsibility on to governments for decisions affecting his own affairs, he surrenders the right to make those decisions for himself and to shape for himself the pattern of his own life.

Moreover, as government gets bigger and bigger, the individual person feels more and more powerless to influence what it does, and government itself tends to become increasingly indifferent to what the individual thinks and proposes. The vast size of the modern bureaucracies, with their swelling armies of experts, promotes the attitude of "we know what is best, because we are the only ones who can really know".

The arrogance of government, as an institution, is something which people sense, and resent, but which they feel incapable of doing much, if anything, about. They can try to work off their frustrations by changing the ruling party, but their position vis-a-vis the government colossus remains unaltered. One thing in which all political parties concur today is the primacy of government itself.

As Pierre Trudeau pointed out, many people have lost the sense of participating meaningfully in the democratic process, and youth particularly tends to look at government as the biggest of all vested interests and as the symbol of the modern establishment. What a change from the 1930’s when youth turned to government to redeem us from our economic sins and to bring to heel the private centres of economic power!
As government gets bigger and more complex, it also becomes more remote. The ordinary person gets lost in the labyrinthine corridors of power. It becomes hard to find out who is responsible for what. It is hard, too, for the public to pinpoint the true source of great national decisions. Very often these decisions are not made by those elected by the people as their representatives. Indeed, the Cabinet Minister himself must frequently feel insignificant and helpless before the formidable expertise of permanent officialdom.

An almost unavoidable by-product of Big Government is that the modern parliament has little control over legislation, and parliamentary debates, even to their participants, have a dangerously unreal quality. Critical measures are steamrollered through without opportunity for other than cursory discussion and in contemptuous disregard of the fact that the public knows next to nothing about what is involved.

No better example of this could be given than the recent legislation providing for the establishment of a mammoth financial institution to be known as the Australian Industry Development Corporation. The capital is to be formed from $100 million of taxpayers' money, but probably 99 out of 100 taxpayers would not have more than the faintest idea what the Corporation was all about. Could such a piece of legislation have been passed, with so little attempt at public justification, only 20 or 30 years ago?

Moreover, the contempt for the public is illustrated not only by the overnight passage of the legislation but by its original detailed provisions. The Bill after imposing prudent restraints on the powers of those who will direct the affairs of the Corporation, then cynically proceeded to render the restraints ineffective by an extraordinary blanket escape clause.

No wonder the ordinary person feels his remoteness from government, and despair at his inability to affect what is done, presumably on his behalf!

What, then, can be done to restore the reality of democracy?

One thing is certain: while government gets bigger it will get more remote from the people, more uncontrollable, more arrogant in its flagrant disregard of public opinion. On the other hand, the fact must be faced that while people continue
to ask more and more of their governments, governments will get bigger. This may mean an easier, more secure life for the average person, since he will be relieved of responsibility and required to make fewer and fewer decisions for himself. Government will make them for him.

In the years ahead government faces a gigantic task, and a revolution in its own thinking, in coming to grips with the sorry problem of the desecration by man of his natural environment. Here is something in which government must lead because only government can. But this provides an added argument for refraining from intervening in concerns which properly belong to people in their private and individual capacities.

If the trend to big and omni-competent government is to be stopped, then the private person must assert himself, not from the basis of tawdry self-interest, but in the renewed conviction that, in a true democracy, government is the servant and he is the master, not the reverse. The younger people, for all their extravagances, at least have devised in the mass protest a modus operandi for communicating with government and for trying to prevent government from having all its own way. Sometimes, perhaps, they protest about the wrong things in the wrong way. But their elders could learn from them the virtues of identification and commitment in the great issues of the day.

The real "gut issue" of our time is whether the individual is to remain, in some real sense, the master of his own destiny, or whether he is to sell out to the politician and the official. Efficiency and order are not everything. More important than efficiency and smooth-running organization are individual development and human dignity.

Discipline and order, admittedly, there must be, and if self-discipline is too onerous a burden for frail mortals, then the external discipline of Big Government may be the only means of avoiding the chaos of anarchy. However the present-day notion that government must do virtually everything if it is to be done efficiently is an affront to human dignity and individual self-respect. One would believe that it is just as dangerous, just as stupid, as the idea, once dominant, that the less government there is the better.
MR. IAN CONNELL

It is with deep regret that we record the death of Mr. Ian Connell. Mr. Connell joined the Council of the Institute of Public Affairs in 1957, and in the years that followed always displayed a keen and enthusiastic interest in I.P.A. activities. He will be missed by his associates on the Council and staff of the Institute.

Mr. Connell was a prominent figure in the Melbourne business and financial community. Following his retirement as Chairman and Managing Director of John Connell Ltd. in 1959, he gave a great deal of his time to the Australian Red Cross Society. He was Chairman of the Victorian Division from 1961 until just prior to his death. Mr. Connell was also a member of the Board of the National Mutual Life Association of Australasia, and a Past President of the Melbourne Chamber and the Associated Chambers of Commerce.

We extend our deepest sympathy to Mrs. Connell and to his colleagues in business and charitable activities.
Curbing Inflation

“We have learned that there is a human element in economic affairs — habit, confidence, fear — and that the economy cannot be managed mechanistically and will not suspend its laws to accommodate political wishes.”

(The Economic Report of the U.S. President, 1970)

INFLATION is the crucial problem facing the economy. It is the crucial problem because the Australian economy, with its unique dependence on exports, cannot contemplate a price and cost rise moving at the rate of 4 or 5 per cent a year. The rural industries are already in serious financial straits partly because of long-continued, although gradual, inflation.

Rising prices and costs have their ultimate source in an over-rapid rate of development. On the other hand, the economy will, in the long run, grow more rapidly in an environment of stable or near stable prices. There is no contradiction in this. A short-lived acceleration in the rate of growth can be brought about through inflation; inflation is, in effect, the instrument by which resources are transferred from consumption to developmental projects. But this soon leads to the need for measures to arrest the upward movement in prices and these measures slow down or may even halt development. This is the familiar “stop and go” situation, one which we all want to avoid. The basic economic argument against rising costs and prices is simply that they mean a slower over-all rate of development.

The current unhappy acceleration of the rising price movement need not have occurred. The economy has been under quite strong inflationary pressure for at least two years. While the pressure was, rather surprisingly, not fully reflected in costs and prices, which were moving up at only a moderate pace, few expected that this would continue. The threat of a
more rapid rate of inflation was becoming clear long before
the Commonwealth Government brought down the 1969/70
Budget. Every economist knows that the time to grapple with
inflation is not after it occurs, but when it threatens. What
was needed last August was a budget of restraint; instead of
that we got a strongly expansionary budget introduced into
an already expansionary situation. A large part of our present
troubles have their immediate source in the Budget of last
year. The Budget provided for a record increase in govern-
ment spending, when it should have done precisely the reverse
and clamped down on the expenditures of both Common-
wealth and States.

The core of the Australian dilemma lies in the virtually
unrestrained rise in government spending.

It is worthwhile thinking back to the situation that ex-
isted around August last year. The number of registered un-
employed had fallen from 66,000 in July, 1968, to 53,000,
and the number of unfilled vacancies had risen sharply from
37,000 to 47,000. Motor registrations were running at a rate
of 20 per cent above the previous year, and new dwelling ap-
provals 30 per cent. As a result of the unavoidable flow-on
from the Work Value Judgment of December, 1967, award
wages were rising steeply; over-award payments were increas-
ing in the context of a tightening market for labour. Consumer
spending which had been relatively subdued in 1968/9, partly
because of the effect of drought conditions on farm income,
was expected to rise by over 11 per cent in the current finan-
cial year. Private investment was also expanding rapidly. The
net migrant intake which had risen from 87,000 in 1966/7 to
126,000 in 1968/9 was expected to reach a near record in
1969/70.

It was clear, therefore, that a strongly inflationary situa-
tion was building up. But this was largely ignored in the
1969/70 Budget. The Budget provided for a $526 million
increase in government expenditure compared with only $375
million in 1968/9. Pensions and cash benefits were budgeted to
rise by 13.2 per cent as against 8.7 per cent the previous
year. The Budget also provided for a huge jump of 38 per cent
in expenditure on education. The really disturbing increase
was, however, in advances and payments to the States which
were budgeted to increase by 11.4 per cent above 1968/9, compared with a 5.3 per cent increase in the preceding Budget.

In a commentary on the 1969/70 Budget, the I.P.A. "Review" stated, "We are strongly of the view that the Budget will have no perceptible deflationary influence. There are many things that could be said in its favor but the conclusion is inescapable that it does not grapple with the over-all problem of inflation and excess demand."

Around the time of the Budget, the Government did take action on the monetary front. In August last year the Statutory Reserve Deposits Ratio was increased from 9 to 9½ per cent, and in October to 10 per cent. Bank overdraft rates were adjusted upwards from 7½ to 7¾ per cent. This comparatively mild stiffening in the policy of the Central Bank was, however, clearly insufficient in the absence of stern fiscal measures. For the present, the Government seems to be placing sole reliance on a tight monetary policy to bring the inflationary pressures under control. Commonwealth Bond rates were dramatically increased for the May loan and on April 1 bank overdraft rates were increased sharply to 8¾ per cent. Those measures have been supported by vigorous sales of government paper by the Reserve Bank to mop up liquid funds.

The Federal Treasurer has done little more than express the hope that the tighter monetary measures that have been instituted will act "at the margin to moderate the demand for capital and, in so doing, help relieve the inflationary pressure arising from excessive demand". Some people argue that the rise in interest rates will not be effective at all; indeed, that higher rates could eventually aggravate the rising cost and price trend because of their effect on costs. Most economists would not go this far. On the other hand, they would probably concede that the weapon of monetary policy is not likely to be fully effective without a complementary fiscal policy.

The 1970 Report of the U.S. President's Council of Economic Advisers has something to say on this question. "The Government could not prudently let the control of inflation depend on the choice of one of these strategies (monetary and fiscal policies) to the neglect of the other. Many uncertainties exist about the relative power of fiscal and monetary activ-
ities taken separately. There is much less doubt about the power of fiscal and monetary activities taken together. A reliable policy has to turn away from both the rising (budget) deficits and the rapid monetary expansion". The U.S. Council of Economic Advisers also emphasised that the Government exerts a considerable influence on supply/demand relationships in the economy through its own expenditures, and that these can contribute to inflation.

There is no question, in our view, that the monetary restraints now being imposed must be reinforced by a disinflationary budget next August. Higher taxes are unthinkable partly because the Government is already committed to a reduction of income tax (if not this year, then in the following two years) and partly because indirect taxes in any form would add to costs and prices and, in the present delicate industrial situation, aggravate the incessant clamour for higher incomes.

All that is left is a sharp reduction in the rate of increase of government expenditure. Such a prescription is going to be anything but easy. The Commonwealth Government has already undertaken increased commitments to the States and, with prices rising, the demand for higher social welfare payments becomes virtually irresistible.

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At this point a digression into theory is necessary. The cause of inflation is generally attributed to an excess of total demand over total supply. This is the explanation that usually emerges from official and academic quarters. It follows from this that to stop inflation, total demand (or, more precisely, the rate of increase in demand) must be reduced to bring it into balance with available supplies.

To ascribe inflation to excess demand, however, is merely to state a truism. What has to be determined are the causes of the excess. In this regard, there are two ratios within the total complex of demand which are significant: the ratio of expenditure on investment to expenditure on consumption and the ratio of private sector spending to spending in the public
sector. In the Australian context, given the strong bias towards investment rather than consumption and toward public sector spending, particularly on capital projects, these relationships have a special importance.

If inflation could be cured simply by cutting back total demand — as the conventional wisdom suggests — then it is immaterial whether the measures affect mainly private demand or government demand, or investment spending or consumption spending. All that would matter is that the total be reduced. In actual fact, in Australia, it is private demand that gets the axe, while government spending proceeds virtually unchecked. Also, the brunt of disinflationary measures always falls on consumption rather than investment.

The weakness in this approach is that if anti-inflationary policy impinges too heavily, as it invariably does, on private sector spending and on consumption spending, it gives rise to dangerous side-effects. Both the private sector as a whole, and the people in their capacity as consumers, strongly resist the attempt to cut down their shares of the available resources. This resistance results in a competition for resources between consumption and investment on the one hand, and between the private and government sectors on the other. Where the proportions of investment expenditure and of government expenditure (on goods and services) to total expenditure are already unusually high, as they are in Australia, the resistance, and the resulting competition for resources, is certain to be quite fierce.

The orthodox view assumes that this competition for resources must remain latent so long as consumers and the private sector are deprived of the means to express their demands. This, it is argued, can be achieved through raising taxes on individuals and businesses and by imposing restraints on their ability to borrow through the normal monetary channels. What this overlooks is that neither the consumer, nor the private sector, will submit to a severe curtailment in the resources available to them without taking compensatory action.

Faced with a sharp reduction in their current consumption standards (because of higher taxes, greater difficulty in borrowing, and higher charges for what they are able to borrow) consumers will react by demanding increased incomes, by
cutting down savings and by seeking ways of borrowing outside the banking mechanism. Businessmen will resist the curtailment of the resources available to them (and their appropriation by the government sector) by raising prices and by competing strongly with governments for the supply of investment funds. The rise in the price of money (the rate of interest) that follows is evidence of this competition. Thus, attempts (which heavily penalise consumers and the private sector) to bring total demand into balance with supplies are certain to lead to retaliation by those affected and thus to new inflationary pressures which tend to undermine the purpose of the whole exercise.

To rid the economy of inflation (by curtailing demand) it is essential that the action be directed at the trouble spots. These are the imbalance between consumption and investment expenditure and between private and public sector spending. The main burden of the measures taken must fall on capital expenditure, and particularly the capital expenditures of governments.

According to the Treasury Information Bulletin of last April, public authority expenditure is rising at an annual rate in excess of 10 per cent. This is far above the rate of increase in the real GNP, in other words in available supplies. Government expenditure, considered in isolation, is thus adding to the pressure on resources and therefore to inflation.

Three years ago the Treasury itself saw the dangers in this situation. In the 1967 Annual Survey of the Economy, it pointed out that, over a period of years, government expenditure on goods and services as a percentage of GNP had been steadily increasing. The Survey implied that this trend could not continue indefinitely without causing trouble for the economy. The Treasurer, Mr. Bury also referred to the strong rise in public sector spending in an address to the Institute of Directors in March this year. The address included the significant sentence: “Public spending reflects the excessive demands for more and better public capital facilities and services across virtually the whole field covered by the public sector — Commonwealth, State and local.”

But, notwithstanding the rapid growth in government expenditures on capital projects, the facilities provided in the
main centres of population are failing to keep pace with needs, and the life environment of the major cities, far from improving, is deteriorating.

Recently, the N.S.W. State Planning Authority estimated that Sydney alone required $700 million for water and $1200 million for sewerage. It also said that spending on roads was only about a quarter of what was needed. This explains why the State Governments are constantly clamouring for more money from the Commonwealth, an act which, in an already inflationary situation, may seem irresponsible to the economist, but is understandable from the point of view of the governments concerned.

Standards of living, considered in the narrow terms of consumer expenditure, are improving but the overall “quality of life”, with which people are becoming increasingly concerned, is declining. The root cause of these difficulties is to be found in the scale of the development and migration programme. From 1960 to 1967 the annual net intake of migrants was running at a rate of around 80,000 a year. But in the last two or three years this has been sharply stepped up. The net migrant inflow is expected to reach the extraordinary figure of 131,000 in the current fiscal year. In spite of this, some people have argued for an even larger intake of migrants to provide workers to meet the labour shortage. But this would not only intensify the increasingly ominous problem of the “city environment”, but would add to the inflationary pressures. The advocates of more migrants to overcome the labour shortage blithely ignore the fact that a migrant worker (and family) immediately generates far greater demands on the community’s resources than he can meet out of his own production. An increase in migration would aggravate, not solve, the labour shortage.

The present Federal Treasurer and his predecessor have both hinted at the difficulties arising from the magnitude of the migration intake. In September last year, commenting upon the cumulation of inflationary forces, Mr. McMahon said, “there must be a slowing down of the rate of development in the future”. Last February Mr. Bury observed that “the cost of immigration in economic terms was readily overlooked’’
and that the general trend in opinion was now to look more to the quality of life than to growth in numbers.

The Commonwealth Government is understandably reluctant to restrict the flow of migrants. This however, would seem to be a necessary pre-condition of a disinflationary Budget in August. The stern monetary measures now being pursued seem to have eased back the level of activity in home-building and purchases of motor cars, and may cause some modification of business programmes. The employment position is also a shade easier. But there is already talk of a relaxation of the credit restraints. This not surprising because not only are the restrictions highly unpopular, but they are totally inconsistent with efforts to increase the migrant intake which involves the continuance of an expansionary fiscal policy. Moreover, the extraordinarily buoyant export figures for May — a record $400 million — the strong inflow of capital, and the consequent healthy balance-of-payments’ prospect, will strongly tempt the authorities to adopt a tolerant attitude toward internal inflation. This is, after all, a much easier road for governments to take than one of persistent and sustained opposition to the forces making for continued cost and price increases.

The present policy is rather like trying to check a galloping horse by pulling on the reins at one end, while continuing to flog him at the other end. The pull of the bit may slow down the confused animal temporarily, but as soon as the reins were eased he would be stimulated to resume his former rapid gallop. A successful policy to curb inflation must be consistent in its various parts and must be aimed at the underlying seat of the trouble. This is located in the rising level of government expenditure and the menacing growth of public sector claims on resources.
Could Socialism become a Threat?

The economic successes of the last two decades have led many to assume that socialism in Australia was a spent force. But, as we enter the 1970's socialism could, conceivably, again become a threat, as it was in the 1940's. This could arise from a pronounced trend towards government expansionism in social welfare and even in economic development.

The proposals of the Labor Party for national superannuation and a nationalised health service would place a large proportion of savings under the control of government and seriously affect life assurance societies and pension funds which today constitute the preponderant source of investment funds for free enterprise.

The dubious and quite unnecessary Australian Industry Development Corporation could only too easily lead to encroachment into fields best left to private enterprise. Labor Party spokesmen have hailed the new Corporation as an ideal instrument for extending "democratic socialism".

FOR twenty years — since the rejection of bank nationalization and the election to office of the Liberal Party — socialism has not represented a serious practical threat to free enterprise in Australia. Indeed, in the 1950's and 1960's private enterprise was so firmly in the saddle that one might have been forgiven for thinking — and many did think — that socialism as a political force was virtually finished. Even the Labor Party seemed to have become less than enthusiastic about its traditional socialist objective. The great strides made towards the society of affluence in the last two decades, under a system founded on free enterprise, lent further credence to the view that socialism in Australia was a spent force.

But now, as we enter the 1970's, it is not inconceivable that socialism could again become a threat which the supporters of free enterprise would do well to take seriously. The danger (so far as private enterprise is concerned) arises from the growing public acceptance of government expansionism in social welfare and, to a less extent, in economic development. The evidence of the existence of poverty in the midst of plenty, the financial burdens of sickness, and the ever-rising costs and deficiencies of education are among the reasons that have caused people to look increasingly to government for stronger measures in the broad field of social security and welfare. There is no doubt, for instance, that the Labor Party's national health and superannuation proposals are appealing powerfully to many people not normally Labor supporters.

Spokesmen for the A.L.P. have emphasised on numerous occasions that Labor stands both for national superannuation and liberal pensions for all free of means test, and a national health service which would virtually eliminate the cost to the individual of hospital and medical care. On the face of it, these pro-
posals, in addition to offering much more liberal benefits, seem to promise a tidier means of organising social welfare than the existing mixed grill of government and private arrangements.

At first glance, comprehensive national insurance and a national health scheme do not appear to amount to any fundamental interference with the principles of free enterprise. It is only on closer examination that doubts arise whether national superannuation, along with a nationalised health service, can be grafted on to a predominantly free enterprise system without seriously weakening the plant.

There is a very simple reason for this. Private enterprise depends for its vitality and growth on a healthy, self-renewing stream of private savings. The greater part of personal savings consists of the moneys that people put by to provide for their eventual retirement and for the protection of their families in the event of death or interruption of their earning power through illness. A national superannuation scheme to furnish adequate retirement benefits for everyone (the amount of the benefits related in some way to earnings) would mean that the individual would be largely relieved of this responsibility. A big part of personal savings would thus, in effect, be appropriated by the state. The individual would pay for national insurance by way of increased taxes or specific contributions, and consequently he would no longer have the means (nor the need) to save for his own retirement.

If, to a national insurance scheme, is added government expansionism in such fields as health, education and housing — this is certainly the trend in Australia as in most democratic countries — the capacity of people to make private savings will be further reduced. What the enthusiasts for comprehensive government planning tend to forget is that there is no such thing as “free” benefits and that lavish welfare provisions have to be paid for by way of onerous taxation or by compulsory contributions of one kind or another. These payments must inevitably make deep inroads into the capacity of people to set aside savings of their own.

It takes no great imagination to grasp that the future of the life assurance societies would be grim indeed if Australia were to institute a compulsory scheme of national insurance to provide retirement benefits, on a fully adequate scale, for everyone. So, of course, would the future of the numerous private pension and superannuation funds which are such an important feature of modern industry. Few people realise that the savings in these funds and in life assurance policies have now become a main source of the capital requirements of private enterprise. In 1966/7, new savings invested in shares in Australian companies exceeded $300 million. If shares purchased by overseas investors totalling $126 million are excluded, then new investments by life assurance societies and pension funds, amounting to $105 million, accounted for around 60 per cent of domestic share purchases. Purchases by individuals amounted to a meagre $7 million. The remaining $62 million consisted largely of the share purchases of investment trusts and other institutional and corporate investors. In addition, the life assurance and pension funds also provide a high proportion of the fixed-interest capital — debentures, notes, mortgages and so on — which has come to occupy a prominent place in the capital structure of most industrial companies. It is obvious, therefore, that life assurance and pension funds are now the preponderant source of new industrial investment by Australians.

If the major part of peoples’ savings are channelled to the state, private enterprise would be compelled to look increasingly to government for its capital needs. The inherent dangers of this situation for the free enterprise system need no emphasis. With the state as the chief source of funds
for investment in industry, government would be in a position to dictate the terms on which capital would be provided and private business would face the inevitable prospect of increased public control of its activities. The community would also be confronted with the likely prospect of expanded government ownership. Indeed, it is difficult to see how a truly free enterprise system could survive if government were to assume the main responsibility for retirement provisions, health and medical care insurance, and housing. Supporters of private enterprise are perhaps insufficiently aware of this impending danger.

No one in Australia has yet drawn attention to the threat to free enterprise inherent in policies of government expansionism in the field of social welfare. However, in the United States, a distinguished public servant, Mr. Robert J. Myers, Chief Actuary and Social Security Administrator of the U.S. Department of Health, Education and Welfare, has, in a number of recent addresses and papers, voiced doubts about the wisdom of government expansion in social insurance and in health provision, or Medicare as it is known in the U.S. Mr. Myers is critical of the growing and sizeable section of opinion in his country seeking to enlarge the ambit of government provision for retirement and sickness. He says that if the need for private sector efforts in economic security are reduced, "there would occur a most significant effect on our national economy. Private savings of all types including pension plans and deferred profit-sharing plans would be appreciably diminished. This in turn would result in a shortage of investment funds for private industry to maintain and increase its productivity. Accordingly private industry would have to turn more and more to the government for such funds and this could well mean increasing government regulation, control and even ownership of production."

The National Pension Fund in Sweden appears to afford some confirmation of the fears expressed by Mr. Myers. The Fund, formed a mere ten years ago to supplement the old-age pension scheme, already possesses assets in excess of $5000 million and is growing rapidly.

The November 1969 issue of "Now", a joint publication of the Federation of Swedish Industries, the Employers' Confederation and the General Export Association of Sweden, says that the National Pension Fund has sufficient funds to purchase control of all companies listed on the Stockholm Stock Exchange. This is, of course, merely an indication of the size of the Pension Fund. It is, to say the least, unlikely that the Fund will be used for this purpose. Nevertheless, since the ruling Social Democratic Party obtained an absolute majority in the 1968 elections it seems to be aiming at increasing the proportion of government ownership in the Swedish economy. "Now" points out that the State Investment Bank (which receives loans from the Pension Fund) can make both debt and equity investments. "By setting conditions for granting loans it can exert influence on management and by purchasing equity it can increase direct state ownership."

According to "Now", the Swedish Finance Ministry is also studying the possibility of equity investment directly by the National Pension Fund (it is at present restricted to debt issues) "thus considerably increasing the potential for influencing business."

The "Economist" of May 30 describes Sweden's recent plan to put two government representatives on the boards of the big private banks as "the first test case of a new form of state intervention devised by Sweden's Social Democratic Government". Some businessmen fear that similar arrangements could be applied to industry in general. The "Economist" says, "In Sweden the latest step towards socialisation of the banks is one in a long line of measures, including the establishment of two new state banks, and a
Could Socialism become a Threat? (continued)

rigorous system of inspection and control. However, a new generation is taking over in the Social Democratic party, and is impatient for quicker results”.

In Australia, there seem to be forces within the Government which favour policies of government expansion, particularly in the welfare field. The recent developments in health services are evidence of this. The Labor Party, however, would go much further. The Leader of the Party, Mr. E. G. Whitlam, made clear in his Policy Speech in October, 1969, that Labor stands not only for a virtually nationalised health service, but also for compulsory national superannuation to supplement the age pension provisions.

Mr. Whitlam’s Policy Speech also advocated the establishment of a public corporation on the lines of the Institute de Reconstructizione Industrial (I.R.I.) established by Mussolini to take over Italian industrial concerns. The I.R.I. is still a massive shareholder in Italian industry. It is not surprising, therefore, that Mr. Whitlam has enthusiastically supported the establishment of the Australian Industry Development Corporation which will borrow overseas and local funds to provide equity and debt capital for private industry. This institution is to have a capital of $100 million, made up of taxpayers’ money, and borrowing rights equivalent to five times capital plus reserves. The A.I.D.C. is being formed in the face of strong opposition from responsible business interests, and the reasons given for its establishment have been wholly unconvincing.

The Australian Resources Development Bank would seem perfectly well equipped to perform the functions attributed to the new body, the main purpose of which is to promote greater Australian participation in the ownership and direction of new industrial developments. The Australian Industry Development Corporation could have an unfair competitive advantage over the Resources Development Bank and the trading banks because of its access to government sources of finance and its consequent freedom from normal commercial disciplines.

A disturbing feature of the A.I.D.C. is that it is to have the right to take up equity capital. This feature of the new body is understandably giving rise to grave misgivings because it could only too easily lead to government encroachment into fields best left to private enterprise. Mr. Whitlam is already on record as declaring that a Labor Government would use this institution for “democratic socialist purposes” — whatever that might mean.

Compulsory national insurance could not fail to weaken seriously the position of the life assurance societies, whose nationalization still remains a key plank in the platform of the Labor Party. Nor have we apparently heard the last of the Labor Party’s objective of bank nationalization. In a paper delivered a year or two ago, entitled “A Socialist Looks at 1984”, Dr. J. F. Cairns forecast a move by the then Government in the early 1970’s to nationalize the banks as “the basis of Australian socialism in the 1980’s”.

The possible political implications of government expansionism in the social welfare field, and in its inevitable concomitant industrial investment, need to be thoroughly considered. As a consequence of greater understanding will come a more wary and discriminating public attitude to these policies by those who wish to see maintained intact a robust system of private enterprise.

There are other reasons, unconnected with political philosophy, for questioning the indefinite extension of government-provided welfare. The aim of all welfare planning is simply the abolition of Poverty, whose existence in the modern affluent economy should not be tolerated by any right-thinking person. Recent private surveys have shown that too many people are compelled to live in conditions not far removed from the “poverty line”. The prevalence of poverty has led many people to assume that the cure lies in an increase
in government social benefits. Thus the liberalisation, and even removal, of the Means Test seems to command widespread support. But would it not be much more logical to do just the opposite and concentrate government aid on those who really need it instead of extending it to people who are well able to look after themselves?

The experience of the British Welfare State over the last 20 years furnishes disturbing evidence that comprehensive national insurance does not necessarily afford adequate protection against old age and ill-health. The Beveridge Plan, whose objective was to abolish poverty in Britain, has now officially been pronounced a failure; a recent Government White Paper reports that the National Insurance Scheme has dismally failed to meet the needs of many of the aged poor, the badly housed, the chronically ill and the large low-income family. In the British Welfare State over three million people still live in slums, and two million pensioners and three-quarters of a million families are at or below the poverty line. Yet over the last ten years expenditure on social services has been doubled, and now represents one half of all public expenditure. According to a report by the Institute of Economic Affairs, at least 80 per cent of the total expenditure on social services, a colossal $20,000 million, is spent without any regard to the means of the beneficiaries and with little or no attempt to recover the full market cost of services from people who can pay. The report further states that, as a result of this policy of unselective state aid, about two-thirds of the total value of welfare benefits goes to households where the amount of tax paid is equal or more than equal to the benefits received. In other words we have the absurdity of the state taking away with one hand only to give back with the other.

One wonders what the famous author of the British Welfare State, Lord Beveridge, would think of the monstrosity which has grown out of his original proposals. When introducing his Plan for the Welfare State, Beveridge emphasised the importance of self-reliance, a characteristic that seems to be disregarded by many present-day figures in government. Beveridge's words are worth repeating: "The State in organising security should not stifle incentive, opportunity, responsibility; in establishing a national minimum, it should leave room and encouragement for voluntary action by each individual to provide more than the minimum for himself and his family." Thus Beveridge's emphasis was on the "minimum"; above that, it was up to the individual to fend for himself.

Today we not only have full employment, but rapidly increasing living standards and growing affluence. With proper ordering of their affairs, the vast majority of people should now be able to make provision for their own protection against life's vicissitudes. The minority, who for one reason or another cannot, or who fail to do so, should be protected by the state. But to try to make of the state not just a Protector of the weak or unfortunate but a Universal Provider is not only destructive of individual dignity and self-reliance, but could have serious and far reaching political and economic consequences.

One single important fact stands out about most modern Western societies: within the short space of 20 years, affluence has been brought miraculously within their grasp. The day when a high living standard is within the reach of all is not far off, provided we do not tamper unthinkingly with the conditions that have brought us so far on a long, hard road. In the coming years governments will have more than enough to do in helping to correct the tragic environmental by-products of modern industrial society without taking on the role of Universal Provider.
A Great Book

“I beseech ye in the bowels of Christ, think that ye may be mistaken.”

There are many good books, and many entitled, for one reason or another, to be regarded as far above the common run. But there are few great books; indeed, if one or two are produced in a generation, that is perhaps almost more than can be expected.

The distinguishing mark of the great book is that it has something of imperishable value for the human race, not just something of value for its own time. The great book never dates; it is part of the permanent heritage of mankind. Its treasures can never be exhausted. It can be taken down from the bookshelves again and again and each time it seems to contribute something fresh and important to our understanding. The great book illuminates the human scene, enlarges the reader’s comprehension, and extends the range of his vision. Through his association with the mind of the author he is uplifted and inspired.

The full depth and subtlety of the thought of books such as these are not likely to be uncovered by a first reading, or even a second. But those who persevere in the struggle to get inside the mind of the author, to grasp his message, are rewarded a thousand-fold.

The great book has many distinguishing features; profound scholarship, superlative literary skill, and immense human understanding are usually among them. The great book clothes noble thoughts in a noble garb. It has a certain compelling grandeur, an imposing majesty.

The Bible, of course, is such a book. So are many of the works of the Greek philosophers. So are the plays of Shakespeare. The great book is marked by extraordinary insight into
the human predicament. One feels that here is a source of ultimate authority, of final wisdom.

Of course, only a tiny minority of books measure up to these standards. Have any such been written in our own lifetime? There can’t be many; there may not be any. We believe we know of one, worthy at least to be considered in this category.

It is not a large book; it consists, in fact, of only 285 pages. Nor is it, in its structure, a unified work. The book is a collection of papers and addresses composed over a large part of the life of the author, Learned Hand, an American. It is unlikely that many Australians will have heard of him. On his retirement as Chief Judge of the U.S. Federal Court of Appeals, President Truman sent him a letter, the last sentence of which read, “No man, whatever his walk of life, has ever been more deserving of the admiration of his country, and indeed of the entire free world”. It would be hard to conceive of a higher accolade of praise than this; but when one reads, or rather studies, Learned Hand’s book, for it must be studied to be thoroughly understood and enjoyed, one is left with little doubt that the President’s eulogy is fully merited.

One could think of many words, many superlatives, to apply to the book, which is called “The Spirit of Liberty”, but perhaps the one that comes most immediately to mind is “nobility”, a word which today seems to have almost a faintly archaic ring. The voice of the author has the grandeur of an organ. His thought soars and moves on an elevation toward which the reader must struggle and will probably never quite reach. But the struggle will be richly rewarded, for not only will he be brought in touch with a mind of the rarest distinction, but he will learn more about the true meaning and the central values and goals of our western democratic way of life than he could from a thousand political treatises.

The book seems to possess such intellectual and moral authority that it would be an impertinence to question its precepts and conclusions. But it has more than unmistakable authority. It has, also, beauty, beauty in the prose, and in the tender, affectionate treatment by the author of friends and acquaintances. There is not a word that is faintly malicious
not an intolerant sentiment except a fierce intolerance of intolerance.

The book takes its title, “The Spirit of Liberty”, from a brief address delivered before thousands of people in Central Park, New York, in 1944, a critical year of World War II. America, said Learned Hand, was founded by people who sought liberty and freedom from oppression.

“What do we mean when we say that first of all we seek liberty? I often wonder whether we do not rest our hopes too much upon constitutions, upon laws and upon courts. These are false hopes; believe me, these are false hopes. Liberty lies in the hearts of men and women. When it dies there, no constitution, no law, no court can save it; no constitution, no law, no court can even do much to help it. While it lies there it needs no constitution, no law, no court to save it. What then is the spirit of liberty? I cannot define it, I can only tell you my own faith. The spirit of liberty is the spirit which is not too sure that it is right; the spirit of liberty is the spirit which seeks to understand the minds of other men and women; the spirit of liberty is the spirit which weighs their interest alongside its own without bias; the spirit of liberty remembers that not even a sparrow falls to earth unheeded; the spirit of liberty is the spirit of Him who, near two thousand years ago, taught mankind that lesson it has never learned but has never quite forgotten; that there may be a kingdom where the least shall be heard and considered side by side with the greatest”.

Above all else, Learned Hand had a fierce hatred and distrust of dogma and dogmatism — the certainty that “I am right and you are wrong,” that “I know and you don’t”. “Of the perils of the soul”, he writes, “the two most grievous are pride and certitude”.

As the key to his philosophy, Learned Hand was accustomed to quote Oliver Cromwell’s plea before the Battle of Dunbar: “I beseech ye in the bowels of Christ, think that ye may be mistaken”. These words Learned Hand said he would like to have written “over the portals of every church, every courthouse and at every crossroads in the nation”.

“Surely we need no proof in these disastrous days that if men would only bear and forbear, would only hold their beliefs tentatively and subject to verification, would try to see with others’ eyes, the greatest part of this world’s woes would be at an end”.

“Ideas, fashions, dogmas, literary, political, scientific and religious, have a very similar course; they get a currency, spread like wildfire, have their day and thereafter nothing can revive them. Were the old questions ever answered? Has anyone ever proved or disproved the right of secession?
Most issues are not decided, their importance passes and they follow after. But in their day they rack the world they infest; men mill about them like a frantic herd: not understanding what their doctrines imply or whither they lead. To them attach the noblest, and the meanest motives, indifferent to all but that there is a cause to die for, or to profit by. Such habits are not conducive to the life of reason; that kind of devotion is not the method by which man has raised himself from a savage. Rather by quite another way, by doubt, by trial, by tentative conclusion”.

The opposite of dogmatism, Learned Hand asserts, is “the open mind and the questioning spirit”, and he would regard this, the creation of such an attitude, as the prime function of our great educational establishments. He would have been gravely troubled by some of the modern trends in university life.

“Today in America vast concourses of youth are flocking to our colleges, eager for something, just what they do not know. It makes much difference what they get. They will be prone to demand something, they can immediately use; the tendency is strong to give it to them; science, economics, business administration, law in its narrower sense. I submit that the shepherds should not first feed the flocks with these. I argue for the outlines of what used to go as a liberal education”.

“. . . . an education which includes the humanities is essential to political wisdom. By humanities I especially mean history, but close beside history, and of almost, if not quite equal importance are letters, poetry, philosophy, the plastic arts and music”.

“I shall argue that the humanities, instead of being regarded only as a solace, a refuge, and an enrichment of the individual — as indeed they are — are also an essential factor in training him to perform his duties in a democratic society”.

In these days when education is regarded as the solvent of all problems, he voices a doubt and a warning.

“I come to you, not as an advocate of education for education’s sake, but as one, who like you, I suppose, is troubled by the spirit of faction, by the catch-words with the explosive energy of faith behind them, by the unwillingness to live and let live with which we are plagued. It is well enough to put one’s faith in education, but the kind makes a vast difference. The principles of a common pump are in my opinion, not so important politically as Keat’s ‘Ode on a Grecian Urn’”.

But in addition to our modern concepts of education, Learned Hand may have been even more disturbed by the invasion of universities by political dogmas and agitators.

“Where shall we find a better examplar of those qualities of heart and mind, on which in the end a democratic state must rest, than in the scholar.
I am not thinking of the patience and penetration with which he must be endowed, or of the equipment he must have; but of the consecration of his spirit to the pursuit of truth. No one can keep a mind always open to new evidence, always ready to change its conclusion, who has other allegiance or commitments. Upon the failure of this necessary detachment, right judgment is most often wrecked; its achievement most strains our animal nature; it is the last habit to be acquired and the first to be lost”.

“I am thinking of what the scholar imposes upon himself; better, perhaps, of what he may fail to impose upon himself; of those abnegations which are the condition of preserving the serenity in which alone he can work; I am thinking of an aloofness from burning issues, which is hard for generous and passionate natures, but without which they almost inevitably become advocates, agitators, crusaders, and propagandists . . . you may not carry a sword beneath a scholar’s gown or lead flaming causes from a cloister”.

“If he (a scholar) is fit to serve in his calling at all, it is only because he has learned not to serve in any other, for his singleness of mind quickly evaporates in the fires of passions, however holy”.

One of the great paradoxes of today’s world, when there are so many knowledgeable men, so many trained intelligences, so many brilliant specialists, Ph.D.’s in every street, is the apparent rareness of that indefinable attribute — wisdom. How is it acquired if not through education and through life experience? Is it that the education is wrong and the experience too narrow? Learned Hand, of course, possesses it in abundant measure and has something to say about it.

“What is wisdom — that gift of God which the prophets exalted? I do not know; like you, I know it when I see it, but I cannot tell of what it is composed. One ingredient I think I do know: the wise man is the detached man. By that I mean more than detached from his grosser interests, his advancement and his gain. I am thinking of something far more subtly interfused”.

For these days when revolutions are so popular, Learned Hand has something to say about revolutionaries.

Whatever their services, revolutionaries obstruct the path to truth; the qualities which clear it are wholly inconsistent with theirs, scepticism, tolerance, discrimination, urbanity, some—but not too much—reserve towards change, insistence upon proportion, and above all humility before the vast unknown”.
But, on the other side, he has no patience with those who would stamp on or discourage unorthodox viewpoints.

“What is our faith? What are its foundations and postulates? On what have we staked our hopes? Is it less than the thesis, as yet quite unverified, that the path towards the Good Life is to assure unimpeded utterance to every opinion, to be fearful of all orthodoxies and to face the discords of the Tower of Babel, all with the hope that in the end the dross will somehow be strained out and we shall be left with the gold nuggets of truth”?

Learned Hand writes of democracy, not without misgivings but yet with hope. Of the influence of “vested interests” on the democratic process he says,

“In any society, I submit, the aggressive and insistent will have disproportionate power. For myself, I confess I should like it otherwise; I prefer the still small voice of reason, but then I am timid and constitutionally incompetent in such matters. But, though I would build the world anew and nearer to the heart’s desire, if I could, I do not propose to cry for the moon. In a world where the stronger have always had their way, I am glad if I can keep them from having it without stint”.

Of the possibility of conflict without violence, Learned Hand writes in a moving peroration.

“Conflict is normal; we reach accommodations as wisdom may teach us that it does not pay to fight. And wisdom may; for wisdom comes as false assurance goes — false assurance, that grows from pride in our powers and ignorance of our ignorance. Beware then of the heathen gods; have no confidence in principles that come to us in the trappings of the eternal. Meet them with gentle irony, friendly scepticism and an open soul. Nor be cast down; for it is always dawn. Day breaks forever, and above the eastern horizon the sun is now about to peep. Full light of day? No, perhaps not ever. But yet it grows lighter, and the paths that were so blind will, if one watches sharply enough, become hourly plainer. We shall learn to walk straighter. Yes, it is always dawn”.

His own matchless scholarship and his reverence for the scholarly virtues are not accompanied — as these things sometimes appear to be — by any coldness of disposition or any lack of understanding of ordinary people and of human character. Quite the contrary: He writes of friends and acquaintances with a rare combination of penetrating insight and tender
affection. Of a great judge of the United States Supreme Court, Mr. Justice Cardozo, he says,

"Cardozo was such a man; his gentle nature had in it no acquisitive-ness; he did not use himself as a measure of value; the secret of his humor — a precious gift that he did not wear upon his sleeve — lay in his ability to get outside of himself, and look back. Yet from this self-effacement came a power greater than the power of him who ruleth a city. He was wise because his spirit was uncontaminated, because he knew no violence, or hatred, or envy, or jealousy, or ill-will. I believe that it was this purity that chiefly made him the judge we so much revere; more than his learning, his acuteness, and his fabulous industry. In this America of ours where the passion for publicity is a disease, and where swarms of foolish, tawdry moths dash with rapture into its consuming fire, it was a rare good fortune that brought to such eminence a man so reserved, so unassuming, so retiring, so gracious to high and low, and so serene. He is gone, and while the West is still lighted with his radiance, it is well for us to pause and take count of our own coarser selves. He has a lesson to teach us if we care to stop and learn; a lesson quite at variance with most that we practice, and much that we profess".

One may think that in penning these words, Learned Hand was writing also, quite unconsciously, of himself.
Beyond the health of any one company or any single industry there lies a larger question — the social impact of science and technology, and the implications of this to our technical organizations.

A few years ago, Du Pont published a booklet about our research activities that began with these words: "Research is one of those few areas of human endeavour which command a respect that sometimes seems to verge on reverence." When we published these words, no one to my knowledge rose to challenge them. But today such sentiments would immediately engender a chorus of protest.

All of us are familiar with the negative argument. Science and technology are described as a wagon rolling downhill, out of control, carrying its human cargo to catastrophe. They are seen not as a solution to our problems but as the cause of many contemporary ills. Our air and water are polluted. Our inner cities are decaying. We are dispoiling our planet; yet stand arrogantly poised to spread our contamination to the stars. If we are to stem our suicidal course, say the critics, we must hasten toward some form of social control of technology. Such criticism sometimes conjures up a "Dr. Strangelove syndrome", a tendency to de-
pict scientists, engineers and those who manage their activities as irresponsible blunderers, moving recklessly forward, heedless of the consequences to man's ultimate well-being and his harmony with nature.

We may disagree with their conclusions, but we cannot dismiss what these people are saying. Their ranks include eminent and influential scientists, scholars and writers, and there is substance to their complaints. After all, can we deny that some technological developments have been released on society without due regard for the side effects? Have we not, as individual entrepreneurs, crowded factory after factory into geographic areas already congested and perhaps polluted beyond tolerable limits? Must we not admit that there are in industry, just as in government, men who concern themselves primarily with what is technically feasible, rather than what is socially desirable.

We are now feeling the backlash. It is manifested in the relative decline in students entering technical professions. It may have something to do with the slowdown in Federal appropriations for science. It provides fodder for Mr. Nader's Raiders, who point out that shoddy or unsafe goods are among the products of our research. It is a constant prod for legislative action, not only to control specific problems, such as the current furor over DDT, but to applications of technology more broadly.

Can we really quarrel with biologist Barry Commoner's contention that "The age of innocent faith in science and technology may be over"? There are of course some counter arguments.

Dr. Du Bridge, who ranks among the most articulate and universally respected men in the world of science, has argued convincingly that "the advance of science and technology, which has helped us to achieve many ideals, has also enhanced our determination to move on to the attainment of even higher ideals. As we eliminate one cause of human suffering, we yearn to eliminate them all, and we become ever more impatient with our slow progress — even though our rate of progress is indeed accelerating." He has pointed out, for example, that air pollution in many cities is far less today than 30 years ago, but as technology brought us some gains in this area, we lifted our sights and determined to eliminate all sources — both old and new. This is a classic case of what social scientists call the revolution of rising expectations. Dr. Du Bridge's has pointed out that our ideas advance a great deal faster than our ability to keep up with them and this leads to a sense of frustration.

Surely, though, there is little to be gained by making technology an all-purpose scapegoat. As Harvey Brooks, Dean of Engineering and Applied Physics at Harvard, has observed: "Only a fabulously affluent society, such as ours, can indulge in the sentimental conceit of denigrating technology . . . Our choice is not between uncontrolled technological progress and abandonment of technology as a tool of human aspiration. Our problem is to discipline our mastery of Nature so that man can live in harmony both with Nature and with his own human nature. This means not less, but more and more sophisticated science and technology."

Nevertheless, Dr. Brooks and other thoughtful students of the problem believe that the time has come to alert the nation to the dangers of uncontrolled technology. We in Industry can begin to do something about a clear challenge that is with us today. The challenge is for industry to devise more imaginative ways to place its technological resources in the service of man; to couple its business goals with the clear and pressing needs of society. As the principal agency for the advancement of technology — the agency performing two-thirds of the nation's Research and Development — industry has both an enormous opportunity and responsibility in this regard.
We believe that there is nothing mutually exclusive about making a profit and serving the needs of society. But our kids are surely not convinced of this. A great many young people seem to feel that the profit motive is to social consciousness what water is to oil — they just don’t mix very well. We have been told by an academic friend that 80 per cent of the students on his Ivy League campus feel that way. Unless we can convince this generation and future ones that our system is not only efficient but also just, the large corporation has a bleak future indeed. Personally, we have no doubt that the companies that will be the most profitable in the long run will be those that serve society best. Society will reward those that help unclog our highways, rebuild and revitalize our cities, cleanse our streams, and conquer poverty and disease; not those whose pursuit of the dollar blinds them to such needs.

We hear a great deal these days about “the social responsibilities of business”. It is an ambiguous phrase at best, which each of us must interpret to his own satisfaction. In our view, it means that industry has moved away from the narrow idea that a business corporation is merely an organization formed to make and sell goods that provide a fair return to the owners. Instead, we have come to look upon our enterprises as mechanisms invented by society to translate scientific knowledge into goods and services that society needs. We have become more human because we see ourselves in this larger role. And because we are human, our deeds quite often fall short of our intentions.

In Du Pont, we begin with the conviction that industry can be a partner in a joint effort with government. This effort involves all segments of society, and calls for maximum cooperation on all sides. But our policies and actions cannot be divorced from national considerations and national priorities. With that in mind, it is fair to say that all of us, in government and industry alike, are part of a single effort; we’re all trying to help develop and implement a workable national policy for protecting and improving the environment. This effort has been going on for several years, and we still have some distance to go. This job occupies the thoughts of a great many people in government and business. It is a key factor in our thinking in the chemical industry.

None of us would want to suggest that industry — or indeed, any other segment of society — has the special wisdom to set forth an appropriate national policy and make it work. But by the same token, industry can contribute to the development of sound policy, and has a continuing role to play in its execution.

In this context, there are four points to discuss:

1. The way we approach the problem.
2. The costs.
3. The criteria we set up.
4. The basic role that the public must play in deciding what the goals will be.

Each of these factors needs to be considered in setting policy, and each involves industry directly or indirectly.

First, the way we approach the problem. If an effective national policy is to be created, it must be based on the pollution problem as a whole, and not just its separate parts. In industry we are struggling away from a fragmented approach. Too often, we have tried to treat air and water and solid waste problems as separate entities, without stopping to notice that the solution to one kind of problem often aggravates another. Industry is not alone in the piecemeal attack on pollution. In government, too, there have been separate efforts to solve separate parts of the problem. We have worked on water pollution or air pollution or solid waste problems or noise problems — as though each existed independently.

All the time we’ve been doing this, ecologists have been trying to tell us that the environment is a closed system; that
everything in it — including man — is interdependent. We accept that idea in principle, but don't always carry it over to the day-to-day fight against pollution. It's time we did. We have to tackle problems in terms of the total environment, and this would seem to be a logical first step in setting an overall national policy.

As a second element in our thinking, we must pay more attention to the cost-benefit equation. The steps we take together to solve our pollution problems are going to have to be measured by an economic yardstick. Industry cannot afford, nor can the nation afford, to do the maximum job of pollution abatement everywhere or all at once.

We would all like to be more optimistic about this. Everybody would be delighted if Du Pont or some other company could report that it has found a way to turn the expense of pollution control into an asset. It just isn't possible. To be sure, the chemical industry has been trying to find ways to retrieve useful materials from liquid outfalls and stack gases, a few of these efforts have succeeded. But most have failed because of the economics involved. We'll keep on trying, but as we look to the future we must be realistic. Most of the economically valuable products that might be recovered from effluents already are being recovered. From now on, with a few exceptions, what goes down the pipe or up the stack has to be considered as waste with little or no value. The question is what to do with it, and that question is proving to be expensive to answer.

Du Pont's total investment in pollution control facilities now totals more than $125 million. We spend about $26 million a year to operate and maintain these facilities. The equivalent of nearly 1000 full-time employees is engaged in pollution control work and antipollution research. Like most companies today, Du Pont considers this to be an integral part of the cost of doing business. All of us should be entirely candid about this, not only with each other but with the public as well. Any significant improvement on a national scale is going to cost major amounts of money and affect the prices people pay for products, or show up in their tax bill.

This leads to a third observation: we can help keep the costs within reason by setting goals that permit different standards in different areas. In water pollution, for example, legislation must apply equitably to all jurisdictions, but if the guidelines are made identical for every river or lake system, the overall costs will be astronomical. We must make improvements in the quality of our rivers and streams — that is agreed — but we want to buy the right amount of improvement for the right kind of money. That brings up an obvious question. What is the right amount of improvement, and who says so? Here, the cost-benefit equation moves beyond the realm of dollars alone.

We have only scratched the surface in research and development. To offer a few examples, very little is known about the effects on living organisms of low-level exposure to pollutants over long periods of time. We have only begun to explore the relationship of various contaminants to our ecology. We are still far away from an adequate mathematical description of natural water systems subject to pollution. We lack knowledge about the molecular nature of substances in these water systems. But we have made a start, and we have a good idea of what to do next. Recently a subcommittee of the American Chemical Society released a major report on the environment. This is much more than just another study. It is a technically sound statement of what needs to be done, and it includes dozens of specific recommendations for research, development, and engineering projects. A number of these fall within our competence in the chemical industry, and some
are projects on which work is already under way.

R & D is only part of the answer. There are still questions of cost and priority, and these are questions that only the public can answer. How much is the nation willing to pay? How much environmental improvement can we undertake without jeopardizing the nation's economic health? How much of our R & D should be focused here? Must we defer action on other national problems which may be just as pressing?

These are not business or technical questions. They are public and social judgments. The answers come only from the people. Thus, to state the fourth point, it seems to us that the Federal Government has a primary and basic role to play in measuring the public's wishes, and shaping an appropriate national policy. No other organization in society has a charter to speak for the nation as a whole. The states and municipalities, and certainly private industry, must look to the Federal level not just for coordination and specific legislation, but first of all for a clear, consistent statement of the national will.

Industry's role, as we see it, is one of active involvement in all aspects of this work. A great many corporations have had years of experience in pollution control, and these companies represent a rich source of practical knowledge as well as research capability. We can apply more of this practical knowledge without waiting for all of the results to come in from research. In Du Pont, we have been trying to make a contribution in a number of areas. In terms of our own manufacturing operations, we adopted a firm policy many years ago: no new plant may be built, no new process approved, unless the plans include workable methods of waste disposal or treatment. The methods must meet or exceed all legal requirements. We are trying to bring our older plants and processes into line with the same policy. Our staff, working in pollution control, are technologists in many fields, including chemistry, engineering, toxicology, medicine, meteorology, and the biological sciences. Many of these experts are active in assisting and advising organizations outside the company.

Du Pont has developed equipment to detect, measure, and analyse various pollutants and to help reduce or modify emissions. Other companies have also developed devices, products, and technical information which can be of great value in our common fight against pollution.

It is the position of the Du Pont Company, a long-time major producer of lead antiknock compounds, that these products, which have allowed the public to operate their motor vehicles at the lowest cost on the needed octane rating for cars involved, should not be eliminated if the technology we see available to control automobile emissions is applied. For the past ten years, Du Pont has been engaged in major research programmes on fuels, engines, and exhaust emissions. From this work, we conclude that the gasoline-powered internal combustion engine offers the best potential for the low-emission vehicle of the future. We have developed control systems for such vehicles which will meet the 1975 exhaust emission standards; this can be accomplished without changes in present fuel composition and, specifically, without restrictions on the use of lead antiknocks. If lead additives in fuel are shown to be a danger to health, the Du Pont Company will follow its long-established practice of withdrawing any product from the market that is found to adversely affect public health.

Environmental improvement is the topic of the day, and everybody wants pollution cleaned up. True enough, but the discouraging fact is that we can't do everything right away. This isn't an excuse. It's not an attempt to push the problem under the rug. It's simply a fact,
and at the moment that fact does not happen to be very popular or politically attractive. But like it or not, there are limits to what we can do short range. We have to be selective, and the process of selection calls for technical competence as well as political leadership.

The nation simply does not have enough money to reconstruct the whole environment overnight. If we had the money, we could not deliver all the needed equipment. If we had the equipment, we couldn't guarantee its use, for there is still an open question, very much unresolved, as to how much muscle we are really prepared to apply here. There are multiple demands on our money and brainpower. The nation wants more and better education. There is a housing shortage. Health care is an urgent problem. Major metropolitan areas are not only dirtied by pollution, but are in serious trouble in other ways. There are people in this country who are hungry, and many more who are undertrained and underemployed. Morally and economically, we cannot afford that waste.

One suggestion is that we ought to divert resources from low-priority tasks and apply them to the environment. No doubt some shifts can be made, but in the process somebody's ox is going to be gored, and as a nation we have not agreed upon whose ox that ought to be. Do we raise taxes and product prices to pay for pollution abatement, or cut into funds for education, or research, or welfare? Do we put our muscle into the urban environment and delay other needed actions in urban renewal? Once again, we face the age-old question of resource allocation, magnified now by the velocity of technical change, the growth in population and urbanization, and a mounting conviction that we must do something promptly about the environment.

The nation needs and the public deserves a straightforward priority list of tasks to be undertaken, a list that shows what is to come first and what is to be deferred. At the top of the list is the protection of human health, with immediate attention to those environmental offenses and geographic areas where health hazards exist now. Second are the problem areas where health will be threatened soon unless corrective action is begun promptly, and where natural resources vital to the future are in jeopardy. Third come improvements that fall into the category of convenience and esthetics. These are not unimportant — we want a place to live that is pleasant and not merely tolerable — but these efforts cannot be allowed to divert attention from the critical problems of areas such as New York and Los Angeles.

"Delivering the goods" means several things at once. It means pollution abatement at existing plants, and prevention of pollution at new plants within a framework of national priorities. It means the aggressive application of a great deal of available technology. Certainly we have only touched the surface in using what we already know. Further, it means research probes into the unanswered technical questions, and a better understanding of what really takes place chemically and biologically in the environmental matrix.

In the last analysis, industry's ability to perform society's crucial tasks will depend most heavily upon the vision and the will of men who staff our organizations. We need men who combine knowledge of the techniques of science with a deep understanding of the needs of the society in which they live. Only such men can invent solutions that are technically sound and socially, economically and politically feasible. It will take nothing less to solve our massive problems in such areas as health, transportation and housing. Well-rounded men capable of tackling such problems are emerging from our colleges, but many of them are turning away from industry because they feel we have no place for them.
The call for generalists has become conventional wisdom — almost a cliché — but there is an open question about our effectiveness in answering that call. The call will be met only if industry lives up to its public pronouncements, places a premium on breadth, and provides in-house, or in cooperation with universities, opportunities for technical men to build both their broad-scale and specifically technical talents. If we truly want broad-gauge men and women, we must provide jobs that challenge their intellects and an environment conducive to their ideals and aspirations. Otherwise we will be saddled with mediocrity, and deserve the sad fate that mediocrity will bring us.

Technical ingenuity is secondary to our human resolve. Our technology will not fail us if we demonstrate the collective will and wisdom to apply it to society's priority tasks.

There is a lot of work to do, but the outlook is encouraging. If we're not as well organized as we need to be, if we still lack a clear-cut national consensus on goals and priorities, at least we seem to be moving toward a coordinated approach. Our mutual concerns about environmental problems can be transformed into unified and effective programmes.

Industry alone can’t solve these problems. Government agencies alone can’t solve them. But just as each of us bears some responsibility for the present condition of our environment, all of us — together — can meet the responsibility of developing sound, workable, affordable plans for cleaning it up.

Speaking for Du Pont, you can be assured that we will help in every way we can.

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