Those intrepid souls who have followed these lectures so far may have some small sense of disquiet. Is there a subtly authoritarian tendency about modern industrial development? The modern large firm as part of its planning reaches out to control its environment; it controls its prices and costs; it manages what people buy and sell at those prices, and it has command of its sources of capital and therewith of its rate of growth. And where its own power is inadequate for its planning, the state, perhaps a little too miraculously, comes in to supplement its efforts. Perhaps, too, it arranges for the state to need what it needs to sell.

The subtlety of this process lies in the way consent is won. Very little of it comes about as the result of imposed will. It is the result, rather, of the carefully cultivated belief which makes various constraints seem a normal and natural discipline for getting the ultimate reward which is of course a large production of goods.

Collective Authority
It is the nature of the modern large industrial corporation I have shown, that decisions are taken not by any individual but collectively by groups. This is because the management of technology, planning, and organization all require specialized knowledge. So the knowledge of specialists must be combined. Thus the authority of which we are speaking is a collective, not an individual, authority. It is the authority of the amorphous and changing combinations of specialized talent that guide the modern industrial enterprise. The authority would have been far more noticeable had it been associated with a single industrial tycoon or dynasty. But, like others, our commitment is to collective leadership. I want here to look a little more extensively at this group authority. I want to see how it manifests itself not in the firm with capitalist antecedents but in the socialist enterprise and in new countries as well as old. What does the group authority, under conditions of advanced technology, mean for modern socialism? And for economic development under socialism? Does it lead to the same general economic and social structure as in the United States and Western Europe?

We may agree at the outset that since technology and planning and organization are what accord power to the group as distinct from the individual, the group will have a decisive authority wherever technology, planning, and organization are a feature of the productive process. This, given the technology and its associated requirements, will be as true of the socialist firm as what, under the cadenzas of ideology, is called capitalism or free enterprise.

In the non-socialist economies, as the firm develops, it becomes necessary to exclude uninformed authority. This, we have seen, includes the owners. In the nineteen-twenties and the 'thirties and on into the war years, the late Henry Ford insisted on
exercising his authority as the sole owner of the Ford Motor Company. It was disastrous. The firm very nearly failed. In the same period, Montgomery Ward, the great American merchandizing house—an American Marks and Spencer—suffered only a little less severely from the similar authority of its chairman, Mr Sewell Avery. And the creditors of TWA, the airline, once made it a condition of their loans that Howard Hughes, the owner, should not exercise the prerogatives of ownership. Ford, Avery, and Hughes were not stupid men; it was rather that all of these firms had reached the size and technical complexity where group decision-making had to be protected from such interference. If we are to have capitalism, it must be without capitalist interference. One would expect that a public corporation of similar size would suffer from the similar intervention of ministers or bureaucrats. But, if they must be excluded, it means that if we are to have socialism, it must be without social control. This will mean a drastic revision of the prospects for socialism in the form, at least, in which most socialists think it worth having. Experience bears out these expectations. So do the observations of such shrewd and lucid students of the problem as Mr C. A. R. Crosland, now Minister of Education, to whom I am indebted.

**Autonomy and the Nationalized Industries**

The British, who, I have always felt, have a superior instinct for administration, have long recognized the need for autonomy for the nationalized industries. A decisive issue has been that of parliamentary questions and comment. If this is allowed on the decisions of nationalized industries, Ministers will have to be informed of such decisions in advance. Otherwise they would have to confess ignorance and imply neglect of duty. But important decisions, those which Parliament would be most likely to be concerned with, turn on complex and technical information. So if the Minister is to exercise informed judgment, he must have the help of a technical staff. Lord Snow was, by common consent, the last universal man in public life.

If this were done, responsibility would be removed from the nationalized firm to the Ministry. The cost in delayed decision would also be high. Only if such parliamentary intervention is excluded can the firm, and therein the decision-making specialists, act responsibly as required on questions requiring specialized information. Coal, electricity, gas, road transport, the airlines and the other publicly owned industries have, in consequence, all been accorded such autonomy.

This autonomy is necessarily less for small decisions than for large decisions. And it is the large decisions that we call policy decisions. The comparative advantages of molecular and atomic reactions for the generation of electricity is grounded in a variety of scientific, technical, economic, and planning judgments. Only a committee, or more precisely a complex of committees, can combine the knowledge, training, and experience that must be brought to bear on such a question. So also with the question of whether the North Atlantic should be flown by American or British aircraft. So in only slightly less measure, the question of how wage scales are to be revised or the railways rationalized. On the questions where Parliament would most expect to be consulted, it is most decisively excluded. ‘The public corporation in Britain has not up to the present been in any real sense accountable to Parliament whose function has been limited to fitful, fragmentary and largely ineffective ex post facto criticism’. This, as we have seen, is as one would expect.
A Change in Capitalism
But for most socialists the purpose of socialism is control of productive enterprise by the society. And for democratic socialists this means the legislature. None, or not many, seek socialism so that power can be exercised by an autonomous and untouchable corporation, and yet this is as it must be. It is in such a corporation that the power must reside. It does not matter that the capitalist, the ancient target of the socialist, suffers from the same exclusion and must himself, like the Rockefellers and the Harrimans, go into politics in order to have power. Most socialists set great store by traditional belief as distinct from reality, and they do not admit to this change in capitalism. They notice only how little difference nationalization of an industry seems to mean. As Mr A. M. F. Palmer referring to Britain put it a few years ago: ‘If an intelligent observer from Mars or Venus should come and examine all large contemporary industrial concerns—public or private.— as working enterprises, he would notice, I suspect, only their overwhelming sameness’.

The late Aneurin Bevan reacted in his last years to this gravitational descent of power away from public authority and into the public enterprise by asking for much stronger parliamentary control. This, of course, would clash with the vulnerability of the group control to outside interference. Control would be at the expense of competence. A large number of socialists have come to feel, as a larger consequence, that public corporations are, by their nature, ‘remote, irresponsible bodies, immune from public scrutiny or democratic control’. These again are Mr Crosland’s words. And a considerable number, in further consequence, have given up the fight for public ownership or accord it only lip service. They have agreed, though few have yet recognized it, that democratic socialism, like vintage capitalism, is the natural victim of modern technology and associated planning.

There have, however, been some experiments with public control. In India and Ceylon, as also in some of the African countries, public enterprises have not, as in Britain, been accorded the autonomy which I have argued is indispensable. Here the socialist faith has in effect been fully asserted. The right to examine budgets and expenditures, review policies and, in particular, to question management through the responsible Minister on any and all actions of the public corporation has been reserved to the legislature.

Omnipotence in Technical Decisions
But here, as elsewhere, if the Minister is to be questioned, he must have knowledge. He cannot plead that he was uninformed without admitting to being a nonentity—that is a condition common enough in the politics of all countries but one that cannot be publicly confessed. Technical personnel in these countries are of course less experienced than in the older countries. Organization is less mature. This leads to error, and further suggests to parliamentarians and civil servants the need for careful review of decisions by higher and presumably wiser authority. India, in particular, as a legacy of its past has an illusion of official omnipotence which extends to highly technical decisions. Also poverty makes nepotism and favouritism in letting contracts both more tempting and more culpable than in the rich country where jobs are plentiful—usually plentiful—and business is easier to come by: ‘Employment policies are especially likely to be subject to external pressure; decisions on how many people are hired or—more important—fired and who they are, invite intervention where
unemployment is rife and highly particularistic loyalties persist’. This also seems to call for further review. And in the case of India rigid personnel and civil service requirements, a British inheritance, I may say, extends into the public firm and prevents the easy constitution and reconstitution of groups, with information relevant to changing problems. This forming and reforming of groups is the essence of good administration in the business firm. I have discussed these matters, mostly in the context of India, in *Economic Development*, published by Boston, Houghton Muffin Company.

The effect in these countries of this denial of autonomy has been generally very inefficient operations. And delay occasioned by checking decisions has added its special dimensions of cost. In business operations a wrong decision can often be reversed at little cost when the error becomes evident. But the cost of a delayed decision—of the men and the capital that stand idle awaiting the decision—can never be retrieved.

Social control has a tendency, we see also in these countries, to bear with particular effect on the two decisions which are of the greatest popular interest—on the prices to be charged to the public and the wages to be paid to workers. It has the effect of keeping prices lower and wages higher than the more authoritarian corporations in the advanced countries would allow. This eliminates net earnings—means that the firms make a loss—and therewith it eliminates earnings as a source of savings. The poor country, which most needs capital, is thus denied the source of capital on which the rich countries most rely. In India and Ceylon nearly all publicly owned corporations operate at a loss, and there as elsewhere one of the few exceptions, it is interesting to notice, is the airlines; but airlines usually claim for themselves the autonomy that other corporations do not have. I have always wondered if it is not because public officials are the principal—or among the principal—clients of the airlines; they use them a great deal and have special reason to see what would happen if they denied them autonomy. But, more generally, socialists in these countries, by attempting to exercise social control, succeed in prejudicing the experiment they most wish to succeed.

The poor showing of democratic socialism has, on the whole, been one of the great disappointments of these last years in countries where there has been a concern for industrial development. In few if any of the new countries has it worked. And the reason rests not with the socialism, as such, but with the effort to associate it—or more precisely to associate socialist industrial management—with democracy. It is part of our modern faith that democracy is both good and omnipotent. Like the family, and truth, and sunshine, and Florence Nightingale, democracy always stands above doubt. But it cannot be brought to bear in any meaningful way on the decisions of the modern large-scale industrial enterprise. This has become the autarchy of its managers and technicians by its nature. It is, to repeat, by its nature, if it is to be efficient, somewhat authoritarian. And that, given the nature of its task, is the only way it can be. The recognition of this simple truth in the last twenty years would have greatly served the cause of economic development.

When the case for democratic socialism began to emerge in the closing decades of the last century, the capitalist entrepreneur was still in authority. His firm was small enough and the state of technology sufficiently simple so that he had a substantial
power of decision. The belief that his power could be exercised instead by public authority under the general purview of a parliament was not at that time an idle dream. For standard tasks—the generation of electricity—it proved quite possible.

A Misfortune of Democratic Socialism
The misfortune of democratic socialism, it is worth repeating, has been the misfortune also of the capitalist. When the latter could no longer control, democratic socialism was no longer a genuine alternative. The technical complexity and planning and associated scale of operations, that took power from the capitalist entrepreneur and lodged it in the body of the firm, removed it also from the reach of social control.

If autonomy is necessary for the effective performance by the firm, it should be needed also in the Soviet-type economies. The requirement begins with the need to combine the specialized information of different men. There is nothing about this requirement that is peculiar to any economic system or which can be dispensed with by any ideology.

The need for autonomy in the Soviet firm could, however, be somewhat less, for the functions of the firm are far fewer than those of an American or British enterprise of comparable size in a similar industry. That is because many of the planning functions performed by the American or British firm are, in the Soviet-type economy, performed by the state. The large American corporation sets its prices, organizes the demand for its products, establishes or negotiates prices for its raw materials and components, takes steps to insure supply, and establishes or negotiates rates for various categories of trained and specialized employees. In the U.S.S.R. these functions are all accomplished by the state planning apparatus. Production and investment targets, which are established by the American or British firm for itself, are given to the Soviet firm, though with some flexibility in application, also by the state.

Although the public supply of materials and components is far from reliable, the firm is prohibited, under penalty of law, from hiring ‘expediters’ or otherwise intervening in the procurement process.

Organization in Soviet Firms
In consequence, the organization of the Soviet firm is far simpler than that of its American or British counterpart. There are no comparable sales, merchandising, dealer relations, product planning, procurement planning, industrial relations or like departments. Most of the top positions in the Soviet firm are held in fact by engineers. This is in keeping with its much greater preoccupation with technical as distinct from planning functions. The Report of the I.I.E. Seminar on Industrial Technology in the Soviet Union, March 24-25, 1960, published by the Institute of International Education, New York, says: ‘In the United States and other Western countries the problems of management include planning and innovation…These decisions are taken in the U.S.S.R. above the level of the enterprise manager’.

It would appear, none the less, that considerable and increasing store is set by the autonomy in these, by our standards, rather simple firms and organizations. There are
two major sources of outside interference in the Soviet Union (a third, the trade union, is clearly of lesser importance)—the state planning apparatus and the Communist Party—interference outside of the firm I mean. I draw here not only on the literature of Soviet planning but on fairly extensive first-hand observation, in the spring of 1959 and more briefly in the summer of 1964. I am extensively grateful to Soviet economists and plant managers for help and hospitality. Soviet economic literature recurrently warns against bureaucratic interference with the operations of the firm. As a distinguished British observer, Ely Devons, has noted:

The Russians have learnt by experience that you cannot have responsible and efficient action at the level of the firm with continuous intervention and instruction from numerous outside authorities. Conflicting instructions from outside give the manager innumerable excuses for failure, waste and inefficiency may result from a serious attempt to run the firm from a distance. Every argument for delegation, decentralization and devolution used in discussions about business administration in the West is echoed, although in a different jargon, in Russia. And the case for such devolution has been pressed with increasing emphasis as Russian industry has grown and become more complex. ('The Enigma of the Russian Economic System' THE LISTENER, August 29, 1957)

Soviet plant managers, from my own experience, do not hesitate to stress to visitors both their need for autonomy and also their past difficulties in this regard. Orders from above may be violated and the need to do so is sometimes defended. On the other side, managements, especially the management of large firms, have, in the past, been condemned for excessive autonomy or for breaking off diplomatic relations with higher authority or behaving as ‘feudal lords’ above the law. We might be reminded that in the Soviet Union the most important medium of social comment after poetry is the novel; one of the half dozen most discussed works since the Second World War has been Vladimir Dudintsev’s defence of the small and independent inventor and his condemnation of the mindless bureaucracy of the great metal combinat. His affections are in close harmony with the American who, in the tradition of Brandeis, argues for the genius of the small entrepreneur as against the stolid, unimaginative behaviour of the great corporation. Both have more support from humane instinct than reality. Neither sees that modern technology makes essential the machinery for mobilizing specialized knowledge. It might also be added that Dudintsev’s invention would never have got the Soviet astronauts into space—in other words he was reacting against something which was technologically impossible. More might also be said now about the Communist Party authorities.

The Communist Party Secretary
The position of the Communist Party secretary—the second source of interference is, as one would expect, also predictably difficult. This man enters the plant hierarchy horizontally, as a member of the staff or working force, and is still subject to the external authority of the party. If he participates as a member of the decision-making group, he naturally becomes responsible for its decisions and therefore he is no longer the independent agent of the party. If he does not participate, he no longer knows what is going on. A distinguished authority, Professor Joseph S. Berliner, in Factory and Manager in the U.S.S.R. (Cambridge, Harvard University Press, 1957), says that
if the secretary is too good a source of information, ‘he may be raised in party rank but . . . Then he will not be able to find out what is going on in the plant. Nobody will have any confidence in him’. (Professor Berliner’s study is based on information from individuals familiar with Soviet industrial life who have come to the west. This speaker was an engineer and a former high official of a large machine-building plant. The obsolescence rate of such observations must be kept in mind—along with the danger of attaching undue importance to any single view.) Professor Granick, another authority, concludes in The Red Executive that the relationship of the party official is, as he says, ‘an uneasy compromise’. Given the imperatives of group decision and its need to protect itself from outside intervention, we again see that this would seem to be the only possible result.

So, in summary, it seems likely that the Soviet resolution of the problem of authority in the industrial enterprise is not unlike that in the West—although no one can be precisely sure. Full social authority over the large enterprise is proclaimed in the Soviet Union. Like that of the shareholder in the United States or Britain, this is something that is celebrated in all public ritual. The people and the party are pictured as being paramount, as the shareholder is with us. But in practice it would seem there, as with us, that large and increasing autonomy is accorded to the enterprise.

Trend towards Decentralization in the U.S.S.R
This is further suggested by the trend to decentralization, so-called, in the Soviet and other eastern European countries, when this is correctly understood. This decentralization has accorded greater authority over prices, individual wage rates, production targets, investment and other employment of the earnings of the firm. In the West, especially among the more eager or anxious friends of the price system, this trend has been widely thought to reflect a return to the market. This is not the case. There is no tendency for the Soviet firm to become subject to uncontrolled prices and unmanaged consumer demand for its products, or for its production needs or labour supply and thus, ultimately, for its production decisions. Given the level of technology, the related commitment of time and capital and the effect of technology on the functioning of markets, this would no more be possible in the U.S.S.R. than in the United States or Britain.

Decentralization involves not a return to the market but a shift of some planning functions (including some control of prices) from the state to the firm. This reflects, in turn, the need of the Soviet firm to have more of the instruments for successful operation under its own authority and this contributes in turn to its autonomy. There is no tendency for the Soviet and the Western systems to convergence by the return of the Soviet systems to the market. Both have outgrown that. What exists is a perceptible and very important convergence to the same form of planning under the growing authority of the business firm.

It will be evident from these lectures that I think little of the analytical value of the categories into which contemporary industrial society is conventionally divided—capitalism and free enterprise, democratic socialism, Soviet-style socialism. Their purpose is not to induce thought but to prevent it. They are fine for individuals whose occupation—the professional conduct of anti-capitalist, anti-Soviet or anti-socialist polemics—requires that they have simplistic formulae that can be grasped not alone
by the people they hope to persuade but by themselves. These categories will do for
the last chapter of the economics textbook—the one that as you recall is called
Comparative Economic Systems—because few students ever get to it. But these
categories will not do for sensible people. And certainly we must no longer base
policy on these highly contrived images.

We have seen that industrial technology has an imperative that transcends ideology.
This, and not political will, is what shapes economic and therewith political
institutions. And it powerfully shapes them wherever it operates. And, not
surprisingly, it imposes strongly similar requirements. In the modern world there are
great differences between the industrialized and the non-industrialized communities
or countries. But the difference between countries in the highest stages of
industrialization, large though they may be in nomenclature, are made convergent by
the commanding needs of industrial technology and related organization.

In light of what I have argued in this lecture—the necessarily autonomous character
of modern industrial planning, its control of environment, the tendency to
convergence of structure in countries with advanced industrial organization—it will
be no surprise if I urge that the modern industrial- system has an important impact on
the culture of the community and on the life and beliefs of the individual. These are
the matters that I hope to examine in my next and final lecture.