### Security, Technology Freedom, and Modern

By WILLIAM HABER

HUMAN progress has been marked by man's striving for security and freedom. At one period or another in history the struggle for freedom ap-peared to predominate. For centuries freedom. At one period or another in history the struggle for freedom ap-peared to predominate. For centuries men have sought escape from oppression and tyranny, and freedom to worship, write, and speak as they think; to meet together and protest a wrong; to vote and change their government. The quest for civil and political liberties has been of primary concern for countless millions all over the world. In many lands the contest to achieve these liber-ties is still on; in others it is just be-ginning. fre gin ning.

ginning. Economic freedoms have played an increasingly important role in the strug-gle for the broader freedoms. These have included the right to join unions, to quit one's job, to strike; the right not to work, and the more persistent and less easily achieved right to work; free-dom to choose one's occuration to dom to choose one's occupation, to change jobs, to invest one's savings or to keep them idle; freedom from unfair to keep them idle; irredom from uniair competitive practices, economic oppres-sion, and government competition and government regulation; that is, the pro-tection of free private enterprise. Freedom in its simplest terms has been defined as "ability to do what you want."<sup>1</sup> But freedom for everyone to o what he mark is not necessful the

want." But freedom for everyone to do what he wants is not necessarily the sole purpose of organized society. It is obvious, of course, that if everyone exercises this privilege, the freedom of many others may be severely curtailed. This is especially true in regard to the economic freedoms. With the right to join unions has been associated the right not to work alongside those who choose

<sup>1</sup> Barbara Wooton, Freedom Under Plannin (Chapel Hill: University of North Carolin Press, 1945), p. 4.

not to join such unions. The right not to work, when exercised collectively through strikes, deprives millions of other individuals of essential services and may deprive them of their freedom to go about their daily affairs unmo-lested. The right to choose an occupa-tion may lead to overcrowding of cer-tain occupations and professions and endanger the standards of all. The right to withhold one's savings from inright to withhold one's savings from in-vestment may lead to joblessness and low wages. Here are obvious conflicts of rights.

of rights. Since not all freedoms are of equal importance to each of us, we begin to establish priorities, indicating those free-doms which may be compromised or curtailed in the interest of a greater freedom for ourselves or others. Such compromise is decidedly dangerous, for by it we discard the idea that all forms of freedom are inclineable and seriously by it we discard the idea that all forms of freedom are inalienable and seriously restrict certain specific types of free-dom. And the idea of priorities obvi-ously suggests that someone will have to restrict determine the relative importance of certain kinds of conduct.

THE GOAL OF ECONOMIC SECURITY

The driving force in this ideological revolution of freedom has been the de-sire for security. Hunger and poverty, sire for security. Hunger and poverty, unemployment and low wages, and eco-nomic oppression and job insecurity have long been recognized as serious obstacles to freedom, although "free-dom from want," to name but one of the Four Freedoms of this day, was not consciously considered to be one of the essential objectives in the quest for freedom a century ago. In this decade it became a major slogan in the world's greatest war, a plank in the Atlantic Charter, a goal of the United Nations.

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The challenge confronting the twentieth century is that of universal economic insecurity which subverts the very free-doms won in past centuries. The scars of depression and unemployment have cut deeply and millions of people seri-ously question the economic basis for personal and social security. Many in this Nation are of the conviction that the preservation of our democratic instiintroduction of the population of the protocol of the population is protected jointy of the population is protected against the hardships of unemployment, old age dependency, illness and dis-ability, and to this end social institu-tions and programs have been fashioned. Is there a conflict between the quest

Is there a connict between the quest for security and freedom? Is security to be won only at the price of liberty? Is planning for security the road to serfdom? Is freedom possible under serfdom? Is freedom possible under planning? Next to the problems of war or peace, the central issues in our democratic society grow out of our efforts to shape our social and economic institutions so as to provide maximum security without compromising our basic freedoms.

# SCIENCE AND SECURITY

Science and modern technology have a great role to play in man's search for both security and freedom. The war-time role of science has focused pub-lic attention on scientific development, lic attention on scientific development, brought forth unprecedented funds and public support, and stimulated research on a national and international scale. The ever increasing industrial applica-tion of scientific discoveries will influ-ence men's lives and livelihood to an unparalleled degree. Will it be a bane or a boon? Will it make for bigger eco-nomic cataclysms or contribute to the control or elimination of depressions? control or elimination of depressions? Will it ease the life of the toiler, raise the standard of living of the mass of workers and increase economic security?

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released millions of production of the basic necessities of life, increased the productivity of farms, mines, and factories, and raised the standard of living of this and many other nations. Thus there has develreleased millions of workers from the standard of hving of the ant many other nations. Thus there has devel-oped in the United States an economic civilization which produces all of its foodstuff with less than 20 per cent of its employed population and which en-argae a lessoning number of people in us employed population and which en-gages a lessening number of people in manufacturing and more and more in providing services. A progressive tech-nology is sifting increased numbers of men and women into the expanding professions in the school and church, public health and social security, rec-reation and entertainment the school reation and entertainment, the fine arts and the sciences. But we stand merely on the threshold of great advances. Not tomorrow or the next day, but in the next generation the application the findings of science will ease t the findings of science will ease problems and burdens of life. the

From a scientific point of view, the pos-

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sibilities are fantastic! The scientific revolution has given In a scientific revolution has given man power to manipulate material things to a degree never before dreamed of. It has made it possible and impera-tive that he change his former way of living and self-maintenance, his manner of farming, manufacture, travel, and If ying and sett-manufacture, travel, and of farming, manufacture, travel, and communication. These are fundamental changes, many of which have occurred in the short period of less than two cen-turies and the most significant of which, in fact, have come about in very recent years. The far-reaching changes have so enlarged man's knowledge of this planet and the utilization of its replanet and the utilization or its re-sources as to make attainable the crea-tion of a new world of rich possibilities. The fear of war, growing out of the in-vention of the atomic bomb, has, for the time being, overshadowed the hope the time being, overshadowed the ho that scientific discoveries, especially the revolutionary character of atomic energy, may vastly enrich human life. Science is rendered suspect when it is used to produce horror rather than hap-

used to produce horror ratner than nap-piness and peace. The scientist in the laboratory has played a vital part in the building of modern industrial civilization. Man's greatest hopes in conquering the giant evils of disease, malnutrition, and pov-erty are founded upon the contributions which could come from scientific re-search. But not until the pulverization of the Iananese cities by atomic bombs search. But not until the purversation of the Japanese cities by atomic bombs on August 6, 1945, did we realize the power, the opportunities, and the dan-gers inherent in such investigation bombs the From that moment science and research became the tools of government. The progress of science and the advance of civilization have always been intimately interwoven. The relationship has now become positive and direct rather than incidental.

The technological developments ting from scientific discoveries l re have ulting

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upon the ability and willingness of mer to perfect the institutional a rrangement which make possible the full utilization of human and physical resources. Ou ce provides conclusive evi given the incentives, we war experience dence that, gi dence have the capacity for a standard of liv-ing such as appeared utopian only a few decades ago.

Full employment during th an employment during the war years indicated the possibilities of the appli-cation of modern technology to produc-tion. We learned that the production of goods and services needed by the peo-ple is limited only by the capacity of the Nation's technology and the willing-ness of men and women to hold is here e men

## POTENTIAL ABUNDANCE

POTENTIAL ABUNDANCE The economic consequences of the scientific revolution are made manifest in the volume of goods and services pro-duced, the kind of work people do for a living, the length of the work day and work week, and the possibilities of economic security. Men have always struggled to provide the necessities of life. Their economic security and standard of living were circumscribed by the limits of industrial technology and more production rather than more equitable distribution was the needed weapon in the battle against poverty. This is no longer true today and, con-fining my analysis to the United States, in physical and engineering terms an era of scarcity in this Nation is an era of scarcity in this Nation the quest for more goods is known. Modern tech-nology has made an era of economic nology has made an era of economic abundance a practical possibility. The practical abolition of poverty depends

ness of and women hold jobs to We learned that a national income goal of 100 billion dollars, which seemed a desirable objective to the National Re-sources Planning Board in 1939, could be achieved easily and even surpassed. Thus in 1945 the value of our national production approximated 200 billion dol-lars—almost four times the 55-billion-dollar value of our national production dollar value of our national production in 1933. Such a volume of production in peacetime makes possible a phenomenal increase in the quantity and quality of goods and services, food, clothing, and shelter, and in the amounts available for education and health, recreation and the arts. Modern methods of produc-tion applied to industry have resulted in phenomenal increases in productivity in the manufacturing industries. Anin phenomenal increases in productivity in the manufacturing industries. Ap-plied to agriculture, although fewer acres were plowed in the United States in 1942 than in 1918, 50 per cent more food was raised in the later year in the largest and most diversified crop ever harvested. Employment in the profes-sional and service occupations has been expanding steadily since 1900 while expanding steadily since 1900, while during the same period millions of workers have been released from agriculture, and manufacturing has had les than a proportional increase in employ ment. An increasing proportion o

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workers are employed in large enter-prises. The opportunities for independ-ent work have been diminishing, largely because of the decreasing number of persons who make their living in agri-culture. Hours have been steadily re-duced and the 8-hour day, 5-day week is becoming the standard work week in most of our industries.

# AN UNSTABLE ECONOMY

AN UNSTABLE ECONOMY A society of abundance has not been achieved in spite of this country's tech-nical capacity to accomplish it. A large proportion of our people have less se-curity, less time for unworried living than their fathers or grandfathers. We have failed by a wide margin to pro-vide security and a standard of living made possible by our resources. Our economic system is not built for sta-bility, and unemployment is still the outstanding economic problem of our age. Full employment during the war and postwar transition period is recog-nized by all as a special situation, in-duced by government spending. And the postwar labor shortage is not as-sumed to have more than temporary significance. Soone or later we shall return to the employment fluctuations and instability which characterized our economy in the prewar era. Thus the paradox of poverty and low standards of living in the midst of possible abun-dance. The United States has develparadox of poverty and desited on a many, job insecurity and low standards of living in the midst of possible abun-dance. The United States has devel-oped a highly industrialized and urban economy. The great proportion of its people depend upon jobs as their sole source of income. The existence of jobs depends upon decisions made by others, by thousands of individuals who are willing to take the risks without which production will not be carried on. The prospects of profits are influenced by a complex of competitive, political, and international forces—forces often not subject to the control of the em-156 THE ANNALS OF TH

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mum wage regulation; and the increas-ing acceptance of "price stability" as necessary if serious production fluc-tuations are to be avoided. "Big La-bor" and "Big Business," both products of modern technology, are increasingly capable of resisting changes and adjust-ments which are likely to affect them adversely. All of these make for less flexible economic institutions and greater difficulty in bringing about adjustments. difficulty in bringing about adjustments. Since these controls are not uniform in all areas of economic activity, the pos-sibilities of disequilibrium are greater than ever. Our system of free private enterprise is much less free than is gen-erally recognized. erally recognized.

# SOCIAL LAG

The social institutions of government, business, and labor need to be as flexible as the institutions of science. as the institutions of science. Science is dynamic; no ideologies stand in its way. New discoveries replace the old. There is a premium on experimentation and discovery. Our social institutions, on the other hand, are relatively rigid. By their very nature they are conserva-tive. Change is resisted. Ideologies are of vital importance. Labor, em-ployer, and citizen opposition all con-spire to stand in the way of the insti-tutional adjustments which are nece-Science tutional adjustr ents which to be achieved. Full emple, must necessarily on of our resources Full employment, sary if is is to be acmeved. for example, must necessarily be ex-amined not alone as a technical pro-posal, but in relation to its ideological consequences, its effect upon free enter-prise, government control, freedom to invest, and free collective bargaining. the lag which exists between technology and our political and economic institu-tions. This lag is inevitable because our institutions are obviously the product of our history, ideals, and beliefs. We change our institutions slowly, and only

ployer upon whose decision the jobs de-pend. Our job economy is therefore an unstable economy. Twice in twenty-five years, and in both instances as a result of a world war, have we had full employment.

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employment. In many respects the instability is ac-centuated by the technological develop-ments which are an outgrowth of the scientific age. These developments, for example, have made possible a steady and often relatively rapid increase in productivity and a resulting reduction in consumer prices. Unless we are pre-pared to deal rapidly with the increas-ing frictions created by monopolistic in-stitutions, whether of businessmen or labor, which block necessary and pos-sible price reductions, the economic consible price reductions, the economic con-sequences which follow only aggravate the problem; prices fail to fall, demand declines, and unemployment may inthe problem; prices ran to tan, declines, and unemployment may in-crease. We rely upon competitive forces to create necessary adjustments. We assume that equilibrium will be estab-lished at full employment of our re-sources and manpower. What is often overlooked, however, is that the very economic forces which are supposed to maintain such an equilibrium and pro-vide necessary adjustments in prices are being increasingly weakened by counterforces and institutions, some of counterforces and institutions, some of which are created to protect society against the effects of technological changes.

changes. Such counterforces are manifested in the increasing rigidities in the wage structure; the effect of collective bar-gaining and union methods in resisting wage deflation; the effect of unemploy-ment compensation benefits upon simi-lar resistance to "adjustments," and upon labor mobility; the influence of "administered prices," made possible by the increasing size of the business unit; the role of the monopolistic or semi-monopolistic industries; the influence of government wage controls and mini-AMERICAN ACADEMY

when our ideals appear to be endan-gered by our failure to change.

## THE ROLE OF GOVERNMENT

The quest for security and job sta-lity-the central problem of this genbilitybility—the central problem of this gen-eration—has led to a larger degree of government planning than the people of the United States have ever experi-enced in time of peace. Our experi-ence during the two world wars indi-cates that we have the technical and ad-ministrative know how and the human and physical resources to provide the physical and cultural needs of our peo-ple on a higher standard than we have ever before known. Our mass produc-tion methods and capacity must be matched by a program to provide mass

tion methods and capacity must be matched by a program to provide mass consumption if industry is to operate steadily at a capacity rate. Our experience thus far suggests that the full utilization of our economic re-sources must be planned. It won't just happen, except for a time. Equilibrium is temporary and may, in fact, be achieved at a point considerably below the full use of the Nation's industrial facilities and resources. Government must act positively in such an under-taking. It must not wait for disaster, but must underwrite the demand for goods and services for the entire popula-tion in such a manner as to assure a in m to and thus stimulate risk-takers uce. The danger of a negative market to produce. role, of waiting for the collapse of kets and unemployment, is too markets and unemployment, is too great A peacetime incentive as forceful and found for compelling as war must be found for the successful achievement of full employment.

### TECHNOLOGY SECURITY,

requirements of light, air and room. Slum conditions are found in every city in the land. There is need for some eight to nine million hand for some eight to nine million housing units to replace old ones; five to six million ad-ditional units to make up for the warlag in housing, for the increase in lation and new families. Only a time population full emplo population and new families. Only a full employment economy can make possible an expenditure of 8 to 9 bil-lion dollars a year for such a purpose. The role of government is to stimulate the entire program, but particularly to help low-income families obtain decent houses. One third of the housing needs are estimated to be for families which are estimated to be for families which cannot pay more than \$30 per month; another third have monthly rental limits of \$30 to \$50. Private construction en-terprise must be relied upon to restore and maintain the Nation's housing, but government aid is needed both in planning and in subsidizing housing for low-

The Nation's obligations and oppor-tunities in the field of health are also large. Sickness and disability in the United States, despite incomparable United States, despite incomparable skill and achievement in medical sci-ence, represent a colossal waste of man-power and resources. The findings of the local Selective Service boards that about 40 per cent of the registrants were unfit for military service represent a measure of the task before us. More doctors and dentists are needed. Serv-ices in hermitch and chines much be are doctors and dentists are needed. Serv-ices in hospitals and clinics must be ex-panded; investigation and research in-creased; and good public health service extended throughout the Nation. And the financial hurdle which stands in the way of needed medical services for mil-lions of people must be overcome. The frontiers can also be pushed

ns The in can also natural re evelo back resources our Our back in our natural resources. Our river valley developments offer rich op-portunities for exploiting a wasted natu-ral resource, raising the level of living ral resource, raising the level of living for millions by land conservation, forest

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surance of a sustained market can pro-vide a firm base for business operations and make possible long-range business planning and production.

### THE PRICE OF SECURITY

nomic security cannot in itself freedom, and economic abun-does not necessarily result in the Economic create dance good life, or lead to a democratic so ciety. These are not in themselves ade SOciety. These are not in incursory and quate to create a free society in the United States. They are, however, es-sential, if not indispensable, for such Without economic sea community. Without economic se-curity, a high national income and an expanding economy, the "good life" and the "good society" in a highly organ-ized industrial and urban civilization will have no chance. Uncomplement d industrial and l have no chance. and urban civilization hance. Unemployment will and insecurity, low income and poverty, a static and contracting economy are a certain road to reaction and to the curtailment of the very freedoms we wish to preserve. The quest of the social scientist must be for an alternative which provides a maximum of security and at the same time preserves the es sential liberties without which we wi and

lose both freedom and security. What is to be said of "the road What is to be said of "the road to serfdom," of the fear that in expanding the role of government in the field of economic affairs, we shall be creating omnipotent state?

Such dangers must be seriously con-sidered. The alternatives are not, be The alternatives are not be-colal anarchy and political to-nism. The choice is not be-lanning and utopia. There are tween social anarchy talitarianism. planning tween hazards in either There is a balance, we either course we follow. palance, which must be discovered by democratic experimentation to determine in each instance to what what extent we are willing to curtail estab-lished freedom of action for a greater good. Full employment in a free so-ciety is possible, but we must recog-

The backlog of unfilled orders, of pro ductive work representing unfin national business is tremendous. unfinished In the field of housing there are long-range obligations and opportunities. Nearly one half of our houses are below mini-mum standards, deficient in the basic

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development, rural electrification, and providing productive work opportunities for an estimated one million men for more than a decade. The Government has a responsibility in stimulating pri-vate investment in all areas through credit policies and the maintenance maximum competition consistent w maximum with

economic stability. Our social security structure must be enlarged with universal coverage for the risks faced by an ion Some of t economic inmajor dustrial population. Some of these risks, such as illness and disability, are not provided for in our present scheme; for other risks the benefit scale is adfor other risks the benefit scale is ad-mittedly inadequate and the coverage restrictions exclude nearly one half of our labor force. We insist, and prop-erly so, that the employer, in the interour labor torce. ... erly so, that the employer, in the inter-est of maximum efficiency, should be free to dispense with a worker's serv-ices at any time. We encourage tech-nological improvement with its conse-in labor displacement. We quences in labor displacement. We cannot shirk our obligations to provide a minimum income to those who pay the price of freedom to hire and fire. In fact, a comprehensive and adequate social security program is the simplest way for a dynamic society to pay the cost of change and reduce resist for istanc to scientific developments and their technological consequences. Since jobs are the sole source of income for most people, and since job security is still an elusive goal, security of income least partial income, is the s or at the simple method of dealing with the major consequences of product of e of instability which economic freedom. is the be To sure, a social security program further extends the role of government in eco mic affairs. These are bold commitments

time planning on a grand scale. firmer the undertaking to under The vrite the market, the less government is likely to be called upon to meet it. The as-

nize that in such a society everyone is not free to do what he wants. The realization of full employment

yould in some measure restrict the freedom of private enterprise and the direc-tion and perhaps the location and volof investment, and extend many ume encroachments already established. It would undoubtedly involve an exten-sion of public control over the labor market. Such controls need not be as drastic as those which restricted the choice of occupation and labor mobility during the war, but would probably extend considerably beyond the provailing regulation of the labor market. This may call for some form of control and guidance of labor mobility, job regisnotification of vacancies, and tration, choice of occupation.

A full employment plan may volve decided restrictions on y also in the free dom of collective bargaining, especially as it influences the regulation of wages. planning for security and full deterployment involves a conscious action of production goals, it follo t competitive wage rates cannot permitted to draw labor away from that competitive wage rates cannot be permitted to draw labor away from the programs. The Beveridge analysis emphasizes that if full and free collective bargaining is retained, the attitude of the parties to the bar-gain must be changed from that which prevails at the present time.<sup>2</sup> "All the familiar methods of adjusting wages are quite inappropriate to the demands of economic planning."<sup>8</sup> One need not decide whether the alternative to the tussle over wages is some form of voluntary arbitration or legal regulation, a reliance upon the wisdom and se wisdom and selfdiscipline of the parties involved. It is only necessary to indicate that if se-curity is our goal, certain accepted

<sup>2</sup> William H. Beveridge, Full Employment in a Free Society (New York: W. W. Norton & Co., 1945), pp. 198-201. <sup>3</sup> Wooton, op. cit., p. 115.

forms of individual and group conduct

will be seriously curtailed. There is little or nothing in the posals for planning for security and and f full nt which endangers n which we rely the freeemploymen opyment which chooses the work of the second doms civil choice right to exercise our freedom as co sumers, the right not to work. The se sumers, the right not to work. These need not be endangered by planning for full employment and economic security. Failure to plan in this age of unex-ampled scientific development and technical change may, in fact, expose our freedoms, civil, political and economic,

a greater danger—institutional inse-ity which is the inevitable concomit of unemployment and poverty and -institutional inseto a curity ant and underutilization of our manpower and resources.

resources. Fortunately, the choice is not to be made suddenly or by violence. Our institutions are not fixed and eternal. They have been changing since the founding of our Nation, hammered out by experience and modified and adjusted to conform to the requirements of changing times and conditions. That process of institutional change is fortuprocess of institutional change is fortu nately still continuing. Modern te nology has but increased its tempo. tech-

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