

INTRODUCTION TO ECONOMIC MOBILIZATION

31 August 1948

CONTENTS

	<u>Page</u>
SPEAKER—Dr. Louis C. Hunter, member of the Faculty of the Industrial College of the Armed Forces.....	1
GENERAL DISCUSSION.....	14

Publication No. L49-1

THE INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

INTRODUCTION TO ECONOMIC MOBILIZATION

31 August 1948

DR. HUNTER: This morning Captain Worthington outlined for you the general scope and content of our course of study. He indicated the various phases into which the course is broken down and the order and manner in which these different phases will be taken up during the next 10 months. He also made some introductory remarks dealing with the nature of economic mobilization and the character of the problems involved. This afternoon I am going to carry on from where Captain Worthington left off in his introductory discussion and plunge into the details of the subject matter itself--not very far into the details, because I have to deal this afternoon, in a fashion, with the whole broad field of economic mobilization. The purpose of my lecture is primarily to give you a general conception of what this broad subject of economic mobilization is all about.

The phrase "economic mobilization" is a rather formidable one, but, in its essentials, the term is not really very difficult to grasp. I shall give a definition this afternoon, and I shall repeat it more than once. It is essentially the same definition that Captain Worthington gave this morning. I think it is well to keep in mind that there is no fixed or final definition of the term. The important thing is to understand in its basic essentials, what economic mobilization is and not be concerned too much with the precise details of wording.

Economic mobilization is simply the process by which all the productive resources of the economy are organized in support of the Armed Forces in wartime. Let me repeat: The process by which all the resources of the economy are organized in support of the Armed Forces.

The necessity for economic mobilization is the outcome of a military revolution, a revolution which has taken place largely in your time and mine. On the surface this revolution appears to be the product of new weapons and new military techniques and of the application of science and technology to war. It is, of course, made possible by scientific research and development; but, in a broader sense, it rests, as I have indicated, upon all the resources of the economy and upon the tremendous increases in productive capacity which have taken place in the world during the past 75 years. This new kind of warfare has been in active preparation since about 1900, but it is only during the last 10 years that we have come to understand its full implications.

Some features of this new warfare are very easy to see and, in a way, to understand. Devices such as rockets, atomic bombs, jet

propulsion, and radar are as spectacular as they are effective; and the man on the street grasps their importance quickly enough. For this reason, the importance of science and technology in warfare is widely appreciated even though, I suppose, in most instances it is not very well understood. The key role of manufacturing in wartime is also widely appreciated. It was the most widely publicized phase of our recent war effort. Remember, too, that most civilians had their direct contact with the war effort in this field.

Other aspects of this military revolution, however, are much less appreciated and understood. This is especially true of its economic and its organizational and administrative aspects. To most people the economic system is pretty much of a mystery. Even among businessmen, all too often, there has been little real understanding of the over-all problems of organizing and running a war economy. It is with these "nonmilitary," "nonscientific" aspects of modern war that I am chiefly concerned this afternoon.

It is very important for us to recognize at the outset that combat is no longer, as it was for centuries, the principal part of warfare. This is a view that the military profession has been and is rather reluctant to accept. It runs contrary to long tradition and practice. Let me put it a little differently: Warfare is no longer, as, again, it was for centuries, principally the business of the military. The civilian side of war in many respects overshadows the military side. Even within the Armed Services, as we all know a large proportion of the personnel are engaged in what are essentially civilian duties; and behind every man in uniform, we are told again and again, there are several civilians engaged in activities essential to placing the military personnel in the field and keeping them supplied and equipped--civilians who give their time and energy and, as we have seen in the European countries, often their lives as well. In fact, the traditional distinction between military and civilian in warfare is coming to have less and less meaning; and in the next war it may have no meaning at all, or, at any rate, only a very nominal meaning.

All this simply adds up to the very important fact that modern war has become a struggle in which the entire resources of nations are pitted against each other and not simply the armed forces. It is a struggle not only between the productive resources of belligerent powers but between the economic systems and institutions through which these resources are made effective for war purposes. Economic systems, of course, are much broader than productive resources as we usually think of these resources. It is a struggle also between the governmental organizations and the administrative procedures and techniques that are necessary to mobilize the economy for war.

In the science of modern war, a sound economic principle or a new administrative practice may be fully as important as, or have even greater importance than, a new weapon or the outcome of a major combat action. There is little doubt that price stabilization in the recent war had far more effect upon the outcome than did the atomic bomb. Many of you may never have heard of the Controlled Materials Plan. Yet the Controlled Materials Plan was probably as important a factor in winning the war as the strategic bombing of Germany. Few of you will remember the bitter battle fought on the home front back in 1940-1941 over the expansion of steel capacity. There was nothing spectacular or glorious about this episode, yet the winning of this battle by the advocates of an enlarged steel capacity was as much a contribution to final victory as the winning of the Battle of the Bulge. It was perhaps a greater contribution. In Germany the advocates of a policy of enlarging basic industrial capacity lost their fight even before the war began, and the result of this defeat told heavily in the end. So much for preliminary remarks. Let us consider the meaning of the phrase "economic mobilization," a brief definition of which I offered earlier. The term is a new one. It is clearly an adaptation of the much older phrase "military mobilization." Military mobilization applies to the process by which, on the eve of war, military units are called up for service, equipped, assembled, and moved to the scene of action. The First World War introduced the term and practice of "industrial mobilization." During the early part of the First World War, the tremendous and unforeseen demands for munitions emphasized the critical importance of the industries which supplied them. Military mobilization was not enough. It was necessary to take extraordinary measures to secure the indispensable industrial support of the Armed Forces. Industry had to be mobilized if adequate supplies of munitions were to be obtained. This concept of industrial mobilization proved to be a very useful one. It drove home the lesson that wars are won not only by armies and navies but by the industrial resources of the country. It drove home the lesson that preparedness is necessary as much on the industrial front as on the military front, and that preparation and planning on the industrial side are just as important as they are on the military side. The Second World War brought into use a broader and more inclusive term, which we are dealing with today, the term "economic mobilization."

As I indicated earlier by "economic mobilization" we mean the process by which not only manufacturing industry but all the economic resources of the Nation are brought into direct and active support of the Armed Forces. As Captain Worthington pointed out this morning, the economy includes not only manufacturing; it includes mining; it includes agriculture; it includes transportation and utilities of all kinds; it includes the financial resources and institutions of

the country; it includes our elaborate systems of wholesale and retail distribution. It includes the vital communication industries; the newspapers and periodical press, telephone and telegraph systems and the radio industry. It includes equipment of all kinds, industrial equipment, business equipment, household equipment, homes, automobiles, and home furnishings. It includes a great variety of activities which serve their purpose by promoting, in one degree or another, productive efficiency by maintaining civilian morale--the entertainment industry, the cosmetic industry, the hard- and soft-drink industries, and so on. Even what some were inclined to dismiss as nonessential industries had important minor contributions to make.

In studying economic mobilization, we start with the basic fact that war increases tremendously the load which the economic system has to carry. Back in the 1930's our military expenditures averaged annually about 800 million dollars, less than 1.5 percent of the national income. In 1939, the year when the war broke out, the figure was still less than 2 percent of the total national income. Now let us see what happened when the country really got under the war load. In 1943 and again in 1944 our total war outlays absorbed 43 percent of the national income--up from 2 to 43 percent in a period of four years. And keep in mind that the national income in 1943 was three times as large as it had been in the middle thirties. Some of the European powers were more fully committed to the war than we were, for obvious reasons. Great Britain and Germany each devoted an estimated 52 percent of its national income to the conduct of the war. We are wise to assume that in another war the proportion of our national income to be devoted to military purposes will run even higher.

Let us explore this matter of economic mobilization a step further. It isn't enough to know what economic mobilization is: How do we put it into effect, how do we operate it? Can we mobilize our resources for war simply by working harder, by working longer hours and extra shifts, by building more and larger plants, by cutting out all possible waste, and by reducing the civilian economy to its barest essentials voluntarily? In other words, do we mobilize the economy for war simply by a speed up of the normal peacetime processes under the drive of patriotism? In this country, as in England, during the early part of the war, there were many who believed that that could be done, who believed that we could meet both defense, and later war, needs and at the same time carry on business pretty much as usual. Many firmly and honestly believed that the two things could be carried together. There are still some in this country, though perhaps not many, who believe that we achieved our enormous war production goals in spite of, rather than because of, the elaborate system of war agencies and the complicated controls and procedures which they administered.

Today informed persons are in full agreement that we cannot mobilize the economy for war simply by stepping up our normal peacetime practices. There is general agreement that in peacetime our economic system, what we call the free-enterprise system, operating without controls, without direction from on top, will not deliver the goods under war conditions. This is in no sense a reflection upon or a criticism of the free-enterprise system. If anything, it is a source of credit and a matter of praise; it is a tribute to the freedom and the individualism which we prize so highly in our society. Our economic system, in contrast to that of some of the dictatorships, has been developed in response to the needs and conditions of peacetime. Our system, in its normal operation, is not designed for war; it is not adapted to the conditions of war as war is carried on today. The plain fact is that the load which modern war places on the economy is so tremendous and so different from that of peacetime that, unless certain radical changes are introduced, the economy is almost bound to break down.

Let us see why it is that the peacetime economy, operating under the stimulus of patriotism, has very little chance of succeeding in carrying the tremendous war production load in wartime. Let us pretend that it will do the job and see what happens. Keep in mind that the free-enterprise system operates under certain basic principles. These include first of all, the freedom of the individual to pursue his own self-interest, to do with his property as he likes. The profit motive supplies the main driving force in our economy. Secondly, what things shall be produced for whom, when, and how many are questions normally decided by free competition in the open market. The free movement of supply and demand functions through a system of unregulated, uncontrolled prices. Finally, a basic condition of the free-enterprise system is that government shall keep its hands off--that government shall serve to protect property, maintain order, insure free competition, fair trade practices, and things of that sort; but for the rest, hands off.

Keeping these basic principles of free enterprise--or better, private enterprise--in mind, let us see what happens when a war situation develops. It is agreed we will not interfere with the normal functioning of the economic system. We will simply rely on the operation of supply and demand in the free market. Just put yourself in the position of the ordinary civilian: whether he is a manufacturer, an investor, a speculator, a banker, a white collar worker or a plain laboring man. A defense or war armament program gets under way. The Armed Services begin to expand. Orders for military equipment and supplies are placed in increasing numbers and amounts.

There is, first of all, a general increase in demand. It is slow at first, but the increase gathers momentum. It begins in industries which supply the goods needed and used directly by the Armed Services

8

and from those industries it spreads widely. But these industries depend on others for their own materials and supplies of many kinds. A big armament program, if maintained and enlarged, makes itself felt before long in every part of the economy, however remote some parts may be from the production of military equipment. The result is that a business boom is soon underway, and this boom grows steadily bigger.

The increase in demand soon results in the appearance of scarcities, and, like demand, these scarcities increase and spread progressively. Scarcities in one field lead to scarcities in another. They usually appear first in production equipment; then in industrial capacity for the finished items required by the Armed Forces; and then they spread to critical raw materials, to skilled labor, to power, to transportation, and so on. The tighter supplies become, the more interested everyone is in obtaining them. Manufacturers over-order in order to make sure, first, that they can obtain what is required to carry out existing contracts and, next, to build up inventories that will enable them to take additional contracts. Speculators enter the field, quite naturally and legitimately, performing their normal function in a free market. They see opportunities to make a killing by buying up materials, by buying up equipment, by buying up even finished items, and they make the most of them. It is quite proper that they should if we proceed on the assumption of normal operation of the economy. Even consumers, before long, begin to wake up and see what is going on, and they, too, try to get into the act. Fearing shortages, they begin to stock up with consumers' goods and by so doing create or accentuate these shortages. All these influences (in turn) react upon each other.

Increasing shortages and mounting demands have one natural result: They bring about a rise in prices. In a war economy, and even in a defense economy, demand is, in effect, unlimited because the Services require so much and require it urgently and quickly. Supply, on the other hand, can be increased only very slowly, since we can get increased supply only through increased production and we can get increased production, in many fields, only through new facilities, through new equipment, and through elaborate employee training programs. Now, what happens when demand and supply get badly out of balance, when demand gets ahead of supply and keeps staying ahead? Prices go up and up. Under the normal operation of the economic system, this is fine, this is all to the good. The normal way to get increased production is through increased prices. Increased prices make it attractive for other producers to get into the field and for existing producers to increase their productive capacity, to work overtime, to put on extra shifts, and so on. But in abnormal times, when supply cannot catch up with demand, prices take an upward spiral and we get inflation, for increased prices mean increased costs and increased costs mean further increases in prices, and these in

turn even higher costs, and so on, as we know only too well as a result of our experience in the last several years.

There are some who will argue that speculation, mounting scarcities, profiteering, and inflation don't matter too much; that the important thing is to get production; that money costs don't add up to a great deal, because the Government can always raise plenty of money by taxation and loans. So long as we give the Services unlimited funds, they can get what they need by allowing contractors to obtain higher prices and higher profits. After all, this argument runs, we can always recapture profits through taxation. This line of reasoning is apt to appeal especially to businessmen because profits are what they work for.

The only trouble with this method of getting greater production in wartime is that it simply won't work. The major objective in a war economy, keep in mind, is to obtain a maximum diversion of production from civilian goods to military goods, a maximum diversion of resources from civilian purposes to military purposes, allowing the civilian economy only so much as is necessary to keep it in efficient working condition so that it can produce a maximum of goods for the Armed Forces. But we simply will not get this maximum diversion of resources under the normal functioning of our economic system. An uncontrolled war boom of the kind I have described will not trim the fat that has to be trimmed from the civilian economy if we are going to get maximum production. It simply adds to that fat, and it is easy to see why. The war boom brings not only high profits--you can tax those away, perhaps, though you may tax away incentive with them--but it brings increased employment, it brings longer hours and overtime, and it brings higher wages and greater job security; and all this adds up to steadily rising civilian income. Rising civilian incomes, in turn, are quickly translated into demands for civilian goods. Instead of civilian demands contracting to make way for military production, they compete with military demands. The civilian-goods industries have a war boom of their own; and, with easy pickings in their normal lines of business, contractors are reluctant to take on the headaches and the often uncertain benefits of war contracts. They seek to expand their peacetime lines of production and in doing so absorb manpower and materials and equipment badly needed in the war industries.

This is a very serious situation because, under the conditions of a normal free-enterprise economy, we can't do anything about it, except make speeches, write editorials, and put up posters urging the civilian population to deny itself all the civilian goods that it has wanted to get all these years and has not been able to get. For the Armed Services to attempt to outbid civilian demands gets them nowhere because paying the higher prices simply increases the flow of money into civilian hands.

An uncontrolled war boom interferes with war production in still other ways. It leads to unstable and often chaotic market conditions. It introduces uncertainties and confusion in production all along the line. It gives the contractor all kinds of headaches as he tries to anticipate just what is going to be the situation three months, six months, or a year from now. It results in production tie-ups which tend to snowball. Worst of all, the inflation that accompanies such an uncontrolled war boom affects different classes of people unevenly: Some benefit and profit, while others suffer because their incomes don't go up proportionately with prices. Inflation leads to charges of profiteering; it leads to criminations and recriminations between the different factors in production, between businessmen, working men, white collar groups and farmers; it creates a low morale among the civilian population, and, of course, that low morale quickly spreads to the Armed Forces, for men in the Services all have relatives and friends on the home front.

All I have said so far is perhaps pretty obvious. Yet it is very fundamental. In a free economy operating without government direction and controls, raw materials, industrial capacity, and labor tend to be channeled into those areas where demand is greatest and profits largest and, in many cases, where the work is easiest; and not into those areas where the need is greatest for the effective prosecution of the war.

The inescapable conclusion is that a war economy must of necessity be a controlled, a directed, and a planned economy. Materials, equipment, facilities, and manpower have to be directed to those areas where they are needed most to promote the war effort. They must be allocated to users in the amounts and in the order of priority dictated by military needs. This concept of priority is, in many respects, the central concept of economic mobilization: Who must get what, when, and in what order, to obtain all the goods necessary to carry out the strategic plans and attain the strategic goals. Priorities for the essentials required to meet strategic objectives simply cannot be determined by free competition in the open market where essential and nonessential demands compete on virtually equal terms. They have to be established and enforced by a central authority.

In economic mobilization, therefore, we deal continually with many kinds of controls and you will hear a great deal about these controls in all phases of this course. These controls, keep in mind, are contrary to the principles of a free economy as it functions in peacetime. We must have controls over manpower; we must have controls over materials, over prices and rents, over production, over equipment, over component parts, over wages, and over exports. What it adds up to is really this: To mobilize the economy for war is virtually to organize and run the economy as one great factory, as a single national enterprise of tremendous size in which tens of thousands of large-scale productive organizations are subordinate parts; and all these parts have to be coordinated and kept in step with one another.

I think I have said enough to indicate that there is a lot more to economic mobilization than converting factories from civilian to war production and stepping up production all along the line. Production problems, of course, are in themselves very difficult ones, and we devote the largest single section of our course to the subject of production. But the most critical problem of all in a war economy is that of keeping the economic system as a whole in balance, of keeping it stabilized and coordinated, and of keeping it from running wild as a result of the inflationary pressures that are always present. The market, operating through supply and demand and through prices, breaks down as the automatic regulator and coordinator of the economic system, which it is in peacetime. It breaks down, as I have indicated, because supply and demand are so far apart and, in total war, cannot be brought together. Therefore, we must step in and provide that balance and coordination artificially; we do this, as I have indicated, by establishing the wide variety of controls to which I have referred.

This brings me to what is the greatest practical problem in mobilizing our economic system for war, and that is the problem of establishing the organizations and devising the administrative procedures and techniques for operating the essential controls. In many ways, the cards are stacked against those who are placed in charge of this critical phase of the wartime job. To begin with, since these control functions are not exercised in peacetime, we have to start from scratch in building up the control agencies, in building up the War Production Boards, the Offices of Price Administration, the War Labor Boards, the War Manpower Commissions, and all the rest. These vital war agencies not only have to build up their organization and recruit personnel, a huge job in itself, but they devise and perfect the complex procedures which are essential for doing the jobs assigned to them. They have to determine what data are necessary for determining and implementing policies, and then gather these data—a tremendous task in itself. Then there are the great difficulties in overcoming public resistance to wartime controls and regulations. A highly individualistic people such as ours just can't accept, without a struggle and without protest, the kind of regimentation that is involved in the operation of these controls. The businessman, in particular, is brought up in an attitude of suspicion and hostility toward the least government interference in the management of his business; and this attitude is widely shared by the general public. Whether it is good, bad, or indifferent, the fact is that the attitude exists; and the men in the control agencies who are trying to do the job have to work in the face of this attitude, they have to work in the face of the powerful pressure groups, representing every important interest, who protest, obstruct, and resist one phase or another of the system of controls. Generally, we will agree to look with complaisance on controls established over the other fellow, but we will fight to the bitter end the establishment of effective

controls over our own behavior. And, of course, inevitably partisan politics enters very much into the picture, and this adds to the difficulties of the control agencies. Finally, the very size and complexity of the job of administering the war economy by a central government present enormous difficulties. We lack the knowledge, we lack the understanding, and we lack the experience needed for the job. The shift from a free economy to a planned and controlled and directed economy is a tremendous shift, especially when it has to be made almost overnight. So almost inevitably we blunder and bull our way through in mobilizing our economy for war.

In the remaining few minutes, I want to discuss with you the significance of all these developments for the military profession. But first I want to give you a brief summary of what we have covered so far.

I am simply summarizing the major points I have been trying to make so far, starting out with the definition of economic mobilization. This is repetition, of course; but if cigarettes and soap flakes can hold their own in the market, operating on the principle that repetition is reputation, maybe we can get economic mobilization across in the same fashion.

Economic mobilization is the process by which all the resources of the nation are organized and directed in support of the Armed Forces.

1. Modern warfare is not simply a conflict between armed forces; it is a struggle enlisting all the resources of the belligerent powers.

2. The load placed by modern war upon the economic resources of this Nation is so tremendous that our full strength cannot be mobilized without important changes in the functioning of the free-enterprise system.

3. The free-enterprise system cannot be mobilized effectively simply by speeding up the normal economic processes of peacetime. A war economy is of necessity a planned, controlled, and directed economy.

4. The administration of the controls for the direction and coordination of the Nation's resources is the central and most difficult problem of economic mobilization.

All right. Now, granting the substantial correctness of what I have said, for the time being—you may take issue with it in the question period—just what is the significance of these developments in the economics of war for the military profession? This

morning Captain Worthington discussed this subject briefly, and I want to hammer it home again this afternoon. Some of you may feel that this is all very interesting but that fundamentally it does not effect what is, after all, the main job of your profession, the conduct of military operations. Admitting that the new warfare places a tremendous burden on the economy and requires extraordinary measures of mobilization, yet you can argue that this is not the responsibility of the military, that it is a civilian job for civilians to handle. You can argue, with considerable force, that the increased scale and complexity of warfare are such as to make it impracticable for the officer to concern himself with the economic side of war and that the demand is for more specialization within the military branches, not for less specialization.

It is true, of course, that military operations have become more and more specialized and demand training and experience of a more and more specialized character. It may be true, too, that in the future the typical officer will have to know more and more about less and less. But the argument for specialization breaks down when we reach the higher echelons of command. It breaks down for two basic reasons. In the first place, the demands of total war are so great that close and harmonious coordination of the military and economic phases of war are essential. In the second place, by law, by tradition, and by long practice, the Armed Forces themselves exercise economic functions of great extent and importance.

It is hardly necessary to point out that in war, as in the conduct of any large-scale operation, effective action is dependent upon close-knit, smooth cooperation among all branches of activity. There must be close and harmonious working relations between all the members of any team. In warfare today there are three major members of the national team: the military members—the Army, Navy, and Air Force; the production division, which includes all the resources of the civilian economy; and the governmental or administrative division. Close and effective coordination of the activities of these three teams requires that each one have a certain familiarity and a certain understanding of the missions and duties of the other members of the team and of the conditions, problems, and difficulties which each of the other members of the team faces in wartime. This, of course, applies to all three members of the team, the two civilian members and the one military member; but here we are concerned, of course, with the military branch of the team.

It is necessary for officers in the higher echelons of command to have some understanding of the character, conditions and problems of economic mobilization, because military strategy must be geared closely to economic strategy and military requirements must be related closely to productive capacity and to the requirements of the civilian

economy. How big a war we can fight and at what level of intensity depend on how much of a strain the civilian economy can stand and for how long. For the Services to ask too little is to prolong the war, add greatly to its cost, and endanger the outcome. There is an equal danger of risking a breakdown of the economy by insisting on too much. So strategic plans must be kept within the limits not only of production feasibility, but of economic feasibility.

This is one major reason for the need of understanding of the problems of economic mobilization on the part of the military division of the team. There is a second, a more direct and compelling reason why the Services should be in close touch with the broad problems and conditions of economic mobilization. In this country, unlike in some other countries, the Services themselves perform certain key economic functions. They have the primary responsibility in one of the most critical phases of economic mobilization, the procurement phase. They design and they develop materiel; and they place contracts for this materiel and for all kinds of military supplies and equipment. Moreover, in various ways they supervise and control production under these contracts.

Let us see briefly what this means. In 1939 munitions accounted for only one percent of all finished manufactures produced in the United States. By the close of 1944, on the other hand, some 60 percent of the manufacturers' output in value went to the Armed Services. Of the total output of the prewar metal-working industries almost 80 percent went to the Armed Services. The total war outlays, of which munitions made up much the larger part, rose from about 2.5 billion dollars in 1940 to 54 billion dollars in 1944.

Now, just how much is 54 billion dollars? Try to visualize it. Let me give you a couple of examples. The total assets in 1935—I refer to 1935 because the data are available for that year—of the 30 largest corporations in the United States came to 52-1/3 billion dollars. These 30 largest corporations included such industrial and financial giants as A. T. & T., U. S. Steel, the Pennsylvania and New York Central Railroads, the Chase National Bank, the National City Bank, General Motors, and so on down the line. Take another standard of comparison. The total expenditures of the relief and work programs of the Federal Government, which seemed so tremendous to us back in the 1930's, from 1933 to 1938, inclusive, came to only 25 billion dollars, less than half our war outlays in 1944.

Of the 54 billion dollars that we spent in 1944, the Armed Services spent about three-fourths. Such enormous purchasing power, concentrated in the hands of a single great agency, the National Military Establishment, is literally dynamite, economic dynamite, in its potential effects upon the working of our economic system. Unless it is handled with the

greatest of care, it can produce very great harm: It can disorganize markets, it can stimulate speculation, it can create serious shortages, it can give rise to inflation. It can demoralize the economy generally if, as I say, it is not handled properly. And all these developments, of course, will in turn result in great losses in productive efficiency.

The economic responsibilities of the Armed Services in wartime and, as Secretary Forrestal has pointed out, in peacetime as well, are very great, both directly and indirectly.

The record of our productive achievements in the recent war is, in many respects, a very extraordinary one. The Armed Services carried through an enormous procurement program, a procurement program almost incredible in its size and complexity. This was made possible, of course, by equally extraordinary achievements in every branch of the Nation's economy. We increased our gross national product 50 percent in four years, from 1939 to 1943. Yet, as you may recall, our procurement and production programs were handicapped during much of the war by controversy, confusion, poor coordination, and many costly mistakes and delays. That the military consequences of these mistakes and delays and all this confusion were not more serious is due to two circumstances: We had two years in which to prepare for full participation in the war, and there was a great deal of fat in the civilian economy.

The lesson of this experience is clear. In the next war there must be closer, fuller, and smoother coordination between the Armed Services and the civilian production agencies in economic mobilization. This means, for one thing, that there must be a better understanding, on the part of the military and civilians alike, of the job which each has to do. Civilians must learn more about the character and problems of warfare with respect to tactics, strategy, and logistics; and the Services must give more attention to the civilian aspects of mobilizing and running a war economy. These enlarged responsibilities have been recognized and accepted by the Services. On the training side, of course, this is demonstrated by the greatly increased attention given in the school systems of the Services to the fields of economics, government, and business administration. It is illustrated especially by the greatly increased scope and emphasis placed on the mission of the Industrial College.

This afternoon I have placed a great deal of stress on the tremendous size and difficulty of the job of organizing and administering a war economy. Tomorrow morning Dr. Williams will take up the Federal administrative system, which provides the foundations on which the much larger administrative structure of wartime must be based.

QUESTION: Dr. Hunter, since a war economy is a planned and controlled economy, would it be desirable to have the controls and directions established by law in peacetime to avoid disruption by shifting to economic mobilization when a war comes? Couldn't we have those controls established in peacetime?

DR. HUNTER: That problem can be considered either as a theoretical problem, to which we might give one answer, or a practical problem, to which we would give a different kind of answer. Under our system of government, we can have in peacetime only what the public is willing to accept. We cannot work it out simply in terms of what is theoretically and logically desirable, that is, what would be desirable if there were no need to obtain public acceptance. I think that that, basically, is the answer. We can have only what the American public wants in peacetime, and the American public's actions will depend primarily on the sense of urgency to which the international situation gives rise.

QUESTION: You spoke rather early, sir, of the Controlled Materials Plan in the last war. That is something with which, I confess, I and probably others are unfamiliar. Can you touch a little on the details of that plan?

DR. HUNTER: I won't anticipate the Production Division of the Course by getting into a discussion of the details of that plan. Briefly, it was a system by which scarce items of material--steel, copper, and aluminum--were allocated to industrial users in the order of the essentiality of need for these different materials. It was a highly complex system for determining what those needs were and for allocating to the branches of industry and the plants concerned the materials needed to do the job. The earlier methods of distributing these materials proved very inadequate. In CMP we at last found a satisfactory way of dealing with what was in many ways our most critical production problem.

QUESTION: Dr. Hunter, getting back to the first question, it seems that basically the amount of control that can be exercised depends upon the people, and the people, in turn, have to be educated. The Armed Forces took upon themselves the job of educating the people as to universal military training, and I believe Congress did not like that. What agency now is responsible for letting the people know what is needed?

DR. HUNTER: What field are you speaking of?

QUESTIONER: Economic control during peacetime.

DR. HUNTER: The peacetime responsibilities for making plans and

preparations for the contingency of economic mobilization in an emergency are placed in the National Security Resources Board, a civilian agency set up by the Security Act of 1947 outside the Military Establishment and made responsible directly to the President. That agency has the responsibility for planning now; presumably this carries with it the responsibility for keeping the public informed of its activities and progress. Like every government agency, however, it is faced with the difficult task of drawing the line between "information" and "propaganda." So far as the military aspects of economic mobilization are concerned, responsibility rests with the Munitions Board in the Military Establishment.

QUESTION: You have dealt with the administrative side of economic mobilization. It seems to me there is one problem you might enlarge upon—the intelligence that has to be organized to bring all these problems into relief and give them depth for economic mobilization.

DR. HUNTER: In peacetime that responsibility rests outside the Military Establishment. It rests with the National Security Resources Board to which I referred. Within the Military Establishment the responsibility centers in the Munitions Board, which represents the three coordinate branches of the Services. They are giving all their time to the job and have built up substantial staffs to deal with every phase of the problem of economic mobilization: gathering the factual data that are necessary, breaking down the over-all problem into its many component parts, giving specific attention to each one of the component parts, and studying the problems of coordination. The job of planning, making studies, and gathering the data on which intelligent plans must be based is the mission of the Munitions Board and the National Security Resources Board. Of course, we do our share of the job right here.

QUESTION: Is there any danger of developing controls for controls' sake in this problem?

DR. HUNTER: I suppose there is always a danger of the end becoming subordinated to the means, because, after all, we have little experience in the operation of these controls. A country with a state-controlled economy, such as the U. S. S. R., can, to a considerable degree, establish and perfect the controls for running every phase of its economy in peacetime. The people in such a country have many years of experience in developing, through trial and error, the kind of controls that will work in their particular system. But, in a country such as ours, we have had an experience, all told, of only six years in the operation of this type of controls, about two years in the First World War and four in the last war.

It is a tremendous problem. What controls are necessary, how they are to be set up, in what ways they shall operate and how long they should be continued--all of these are questions to which it is extremely difficult to give adequate answers. There are usually a variety of answers that can be offered to any problem that comes up on a day-by-day basis. Yet judging both by the experience of the recent war and by the strong public sentiment today, the danger of having controls for the sake of controls does not seem a real one. Even government administrators, the much maligned bureaucrats, who might seem to desire controls for the power they would give them, emphasize the importance of keeping controls few in number and simple in character, if they are to be workable.

QUESTION: You have spoken of the Resources Board and the Munitions Board determining the controls for items needed by the Armed Forces. Who would determine, for instance, whether beer or alcohol should be produced and in what quantity? I don't believe the agencies mentioned would determine that. And I believe diapers were an important shortage in the last war. Who would determine whether cotton should go into diapers or into something else?

DR. HUNTER: We don't know, of course, what the setup will be in the next national emergency. In the last war, about a month after Pearl Harbor, the War Production Board was set up to take over the functions of the preceding production agencies. It became the key agency for the allocation of materials, equipment and the like; and it was through the priority system that it was decided what industries should get how much of what. As between alcohol and beer at one period, the issue boiled down, if I recall correctly, to the question of the allocation of tires for beer trucks and of materials for the replacement of essential equipment in the breweries and distilleries.

QUESTION: Do you mean that by controlling the basic materials they would control the output of the civilian product?

DR. HUNTER: Yes. That is the principal way in which our control system operated in respect to production. There are other ways as well, but the control of materials--by denying materials, by giving materials, and by limiting the amount of materials--is one of the key methods by which we controlled production during the war.

QUESTION: Isn't there a danger of misinterpreting figures such as were used in comparing our expenditures in 1935 and then in 1944, because of the fact that, as a result of having to do things in the rush of an emergency, the cost is a great deal more than it would be if we did them in proper fashion? For example, if you are driving a car and have a tire that should be replaced, and if you go to a

reputable dealer, you can pick up a first-line tire for the regular price. But if you wait until the tire blows out 50 miles from nowhere, you will have to pay double the regular price for a second-line tire and will have to pay somebody to get it besides. You end up by paying four times the regular price for a tire, and you will probably be unlucky enough to have an accident along with it.

DR. HUNTER: You are quite right. Our democracy being constituted as it is and our economy operating as it does, we are not likely to move into a program such as this in the most efficient way. We get into it in the give-and-take fashion of a democratic system, and that is often wasteful, in the short run at any rate. We feel it is not wasteful in the long run. We have only to compare our war production effort with the war production effort of Germany to see what we believe is the superiority of our way of doing things.

QUESTION: We have been speaking about control of materials and control of production. We know that we have certain supplies and productive capacity. But we advance in our weapons. Aircraft, for instance, have advanced into the rocket jet as it exists now. Who is going to control the necessary know-how? In certain technical phases there is just so much know-how available in industry. We are controlling everything in the form of supplies and production, but we can't produce without this technical know-how. There is only a little cake of yeast to leaven a loaf not only of production but also of use and maintenance of equipment in case of war. The personnel will be needed by all the Armed Forces and industry, which will necessarily expand tremendously in the event of war. Would we have control of the know-how and the technical personnel through the draft system, or do we, in economic mobilization, enter into a study of the necessary know-how to operate our economy?

DR. HUNTER: Yes; indeed we do. That is one of the major things that is taken up in the Manpower Division of the course. The training of necessary skills, the maintenance of pools of necessary skills, the matter of allocating those skills as between the Armed Forces and the civilian economy, and the distribution of those skills through a system of manpower controls constitute one of the most serious problems with which we have to deal.

QUESTION: Who handles that?

DR. HUNTER: In peacetime, on the planning side, we have the Selective Service System. The Armed Services themselves are giving a great deal of attention to these very problems that you have mentioned: how the Armed Services can use most effectively the skills within the Army, the Navy, and the Air Force; what share of specific types of skills is to go to each one of these branches; and what share of these

skills is to be left in the civilian economy for the conduct of essential production. The Services are studying the problems. Selective Service is. The National Security Resources Board is studying the over-all problems of manpower, civilian and military. I believe, also, that the Department of Labor is giving attention to them. You will find, when we get to the Manpower Division of the course, a great deal of attention will be given to the various problems of the utilization of manpower and the controls that are believed to be essential to obtain the best utilization of manpower.

QUESTION: Do we have one central agency to control that?

DR. HUNTER: Well, let us refer to the recent war. We had dozens of agencies that had their finger in the manpower pie, and that is one of the reasons why we had difficulty in dealing with the whole manpower problem. We did not have one place where the authority was centralized. Now, of course, the question is, What will happen next time? We can't be sure what will happen. It will depend on what kinds of war agencies are set up by Congress and what authority is given to those war agencies.

We have the Armed Services studying these problems with great care. Outside the Military Establishment we have the National Security Resources Board, which has a Manpower Division that is dealing specifically with these problems and trying to work out the best answer, on the basis not only of past experience, but on the basis of prevailing trends and what we think the situation is going to be at the time of the emergency. But until Congress acts to establish a policy and until the specific agencies are set up to do the job, we can't say what the action will be.

QUESTION: The Armed Forces have recognized the problem of economic mobilization, as illustrated by the establishment of this College. But what are civilian educational institutions doing to provide this same training to the civilian team in the country?

DR. HUNTER: On the whole, very little is being done. During the war period, considerable interest was shown in the problems of economic mobilization and the problems of what the economists called a war economy or the economics of war. Courses were introduced in the field of economics of war in many civilian universities. Since the war, most of those courses have been dropped. Only a very few places are doing anything actively. The Graduate School of Business Administration of Harvard University is outstanding in this respect, and it may be that there are a number of other business schools and other institutions where some attention is being given to the matter. But this is not so to any great extent.

RESTRICTED

21

DR. REICHLEY: The Industrial College recognizes the importance of that by establishing the Reserve Instruction Course. Since civilian educators are invited to attend that course, we hope that, in turn, they will establish economic mobilization courses in their own universities throughout the country. At present, however, there are very few that have courses on this subject.

If there are any further questions, Dr. Hunter will remain here to answer them. Thank you, Dr. Hunter.

(2 March 1949--750)S/mmg

RESTRICTED

