

INTRODUCTION TO ECONOMIC MOBILIZATION

30 August 1950

CONTENTS

	<u>Page</u>
INTRODUCTION--Colonel E. E. Barnes, CE, Chief, Mobilization Branch, Industrial College of the Armed Forces...	1
SPEAKER--Dr. Louis C. Hunter, Member of the Faculty, Industrial College of the Armed Forces.....	1
GENERAL DISCUSSION.....	14

Publication No. L51-2

INDUSTRIAL COLLEGE OF THE ARMED FORCES

Washington, D. C.

## INTRODUCTION TO ECONOMIC MOBILIZATION

30 August 1950

COLONEL BARNES: Gentlemen, experience has proved that in an all-out war, all-out mobilization to support it is necessary, in other words, economic mobilization, your course here at this college. But economic mobilization doesn't just happen. It has to be planned. It has to be planned in meticulous detail. Your whole course here is devoted to preparing you for participation in this planning or in the implementation of it. Dr. Hunter, our lecturer this afternoon, will start you out on this road. He is going to explain why many of the normal economic forces which have more or less free interplay in peacetime have to be artificially controlled in wartime. His lecture will introduce to you the subject of economic mobilization.

Dr. Hunter is especially qualified to bring this story to you. He has done a great deal of research in the field of American economic development, and he is the author of numerous articles and reviews on economic history. I think we are very fortunate in having him here on our faculty and available for this assignment. Dr. Hunter.

DR. HUNTER: Gentlemen, two days ago General Holman gave you a preliminary view of "Economic Mobilization," the subject of our course. This afternoon I am going to take his talk as my point of departure.

You may recall that General Holman likened the national effort in wartime to a great pyramid, with the armed forces at the top, serving as the cutting edge, the spearhead, of the Nation's war strength. This cutting edge, as he pointed out, rests upon a series of layers forming the rest of the pyramid, layers which increase in extent and in thickness down to the bedrock of the Nation's moral and spiritual strength.

Our course of study, too, can be likened to a pyramid; and in the orientation unit the object is to prepare for the remainder of the course as broad and solid a foundation as possible. This foundation may be said to consist of an understanding of two very basic things: first, an understanding of how our national economy and our national government--our political economy if you like the phrase--function under so-called normal, peacetime conditions; and, second, an understanding of the distinctive character, conditions, and functioning of the national economy and government when mobilized for war.

Obviously, the American economic system and the Federal Government in its many branches are too vast and too complex in their workings to be dealt with adequately in the brief span of three weeks. It is not our intention to deal with them in any such short span of time

comprehensively. That would be simply impossible. But it is possible in this brief period at least to call attention to some of the major characteristics, conditions, and problems--characteristics and problems which bear very directly on the scale and the intensity of any war effort. We can, if nothing else, obtain a new appreciation of a fact recognized by all students of modern war; namely, that the social sciences of economics, of administration and management, and of government generally are no less basic to the conduct of war in our times than are the physical sciences on which rest the extraordinary weapons and materiel used by the armed forces in combat.

I am going to begin my discussion this afternoon with a definition of economic mobilization. I shall then spend most of the remainder of the hour explaining what the definition means. So let's start with the definition: Economic mobilization is simply the process by which all the productive resources of the economy are organized and directed in support of the armed forces for defense or war.

Now, this process which we call economic mobilization is a by-product of a military revolution, a revolution that has taken place in the last generation, in other words, in your lifetime and mine. On the surface it appears to be the product of new military weapons and new military techniques and of the application of science and technology to warfare. It is obvious, of course, that it is made possible by scientific research and development; but the causes go even deeper. In a broader sense it rests upon the tremendous increases in productive resources and productive capacity which have taken place in the world during the past 75 years, chiefly in western Europe, the United States, and Canada. This new kind of warfare has been in active preparation about the same length of time, but it is only during the last ten years that we have come to understand its full implications and to realize its full possibilities.

Some features of this new warfare are easy to see and, in a way, to understand. Devices such as rockets, proximity fuzes, atomic bombs, jet propulsion, and radar are as spectacular as they are effective. Any one of us can grasp their importance quickly enough. For this reason the significance of science and technology in war is widely appreciated, even if it isn't very well understood, by most of us. The key role of manufacturing in warfare is also widely appreciated. No phase of our recent war effort, apart from the strictly military phase, received more publicity and more praise. After all, this was the phase in which most civilians had their most direct contact with the war.

But other aspects of this military revolution are much less well known and much less understood. This is especially true of the economic aspect and of the organizational and administrative aspects of war. To most people the economic system, even in its normal

operations, is pretty much of a mystery; to grasp the workings of a complicated war economy is something else again. It is with these nonmilitary and nonscientific aspects of modern war that I am chiefly concerned this afternoon.

At the outset it is important to recognize that combat is no longer, as it has been for centuries, the principal part of warfare. This is, of course, a view that many in the military profession will be reluctant to accept. It runs contrary to long tradition and experience. Let me put it a little differently. Warfare is no longer, as it was for centuries, principally the business of the military. The civilian side of war has come in many respects to overshadow the strictly military side. Even within the armed services a large proportion of the personnel are engaged in duties, such as procurement and various supply matters behind the front lines, which are mainly civilian in character. Behind every man in uniform there are several civilians--men and women--engaged in activities essential to keep the military forces in the field, giving their time, labor, and, in areas within enemy bombing range, as we saw in the European and Far Eastern theaters in the last war, often giving their lives, in the war effort. In fact the traditional distinction between military and civilian is coming to have less and less meaning in wartime. It is quite probable that in the next war it will have no meaning at all.

All this adds up to a very obvious but very important fact, one stressed by General Holman two days ago, and well worth emphasizing again today. Modern war has become a struggle in which the entire resources of nations are pitted against each other. It is a struggle not only between the productive resources such as mills and factories of the belligerent powers; but it is also a struggle between the economic systems, whether capitalist, Communist, or Fascist, through which these resources are made effective for war purposes.

More than that, modern war has become a contest also between the governmental institutions, the organizational systems, and the administrative techniques and procedures necessary to mobilize the economic resources of the Nation for war. In fact, in the science and practice of modern war, a sound economic principle or a new and effective administrative practice may be fully as important as, or even of greater importance than, a new weapon or the outcome of a major combat action. Many of you may never have heard about the Controlled Materials Plan (CMP), unless you were here in Washington during World War II; and yet CMP may well have been as important a factor in winning the war and bringing it to an early close as the strategic bombing of Germany. Some of you may remember here in Washington the bitter battle fought on the production front over the expansion of steel capacity back in 1940 and 1941. There wasn't anything spectacular or glorious about it; yet the winning of this battle on the side of expanded steel capacity made an essential contribution to final victory.

~~RESTRICTED~~

With these preliminary remarks, let's consider the meaning of "Economic Mobilization," the subject of the course of study we are just beginning.

The term "economic mobilization" is a new one. However, it is simply an adaptation, obviously, of a 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 and assembled, and moved into position for action.

The First World War introduced the term and the practice of what we call "industrial mobilization." The tremendous and unforeseen demands for munitions in the early part of the war emphasized the importance of the industries which supplied those munitions. Before long economic resources other than industries felt the impact of the tremendous wartime demands. But manufacturing industry was the principal bottleneck, or the most readily understood bottleneck. So the phrase became industrial mobilization.

Sweeping measures had to be taken to ensure adequate supplies for the armed services. In a very real sense, though not to the extent practiced in the recent war by the belligerent powers, industry came to be mobilized no less than the armed forces, although in a quite different way. That is, industry was organized, controlled and directed so as to obtain the greatly increased production that was necessary. Manufacturers, for example, were told what they could and what they could not produce. Scarce materials were allowed only to producers of essential war goods, prices were brought under control, a beginning was made in the rationing of scarce consumer goods, and so on.

The concept of industrial mobilization, created as a result of experience in the First World War, proved very useful in the postwar years that followed. It drove home the lesson that it takes more than armies, navies, and air forces to fight modern wars. It emphasized the importance of planning and preparedness for the industrial no less than for the military side of warfare.

The Second World War brought into use the broader, more inclusive concept of economic mobilization. According to the definition I suggested at the outset, it refers to the process by which not only manufacturing industry but all our economic resources are organized in support of the armed forces. The economy, obviously, includes not only manufacturing. It includes transportation, power, and other utilities. It includes agriculture and mining. It also includes the financial resources and institutions of the Nation. It includes the elaborate systems of wholesale and retail distribution. It includes the communication industries--telephone, telegraph, and radio--and so on down the line. Moreover, it includes equipment of

RESTRICTED

# RESTRICTED

7

all sorts--industrial equipment, business equipment, and household equipment, from machine tools and conveyor belts to adding machines and file cases, from sewing machines to refrigerators, egg beaters, and can openers. Finally, we mustn't overlook a wide variety of enterprises which in the last war were generally held essential, though there were minority views on the subject, for maintaining civilian morale, such as the entertainment industry; the liquor industries, hard and soft; the cosmetic industry; and so on.

The difficulties which economic mobilization presents all start from a single basic fact--that war increases tremendously the load which the economic system must carry. The major demands of the civilian population and of civilian industry continue in wartime as in peacetime--some of them indeed greatly increase--and these demands must be met or the productive efficiency of the economy will fall off. Then on top of these civilian necessities are placed the tremendous requirements of a vast military machine, which in the last war included more than ten million men, operating all over the world, in a wide variety of climates and theaters, and using up goods and equipment at a tremendous rate.

Let's see what war does to the burden which the military establishment places on the economy when war breaks out. As late as 1939 the United States military expenditures did not exceed 2 percent of the national income. (By "national income" we mean the total annual output of goods and services of the Nation.) But when this country really got under the war load in 1943 and again in 1944, our total war outlays absorbed 43 percent of the national income-- a national income that was three times as large as it was in the somewhat depressed years of the middle thirties. The major European powers were committed more fully to war than we were. Great Britain and Germany both devoted an estimated 52 percent of their national income to war purposes.

Now, you not only have to step up total national production to an extent that we in this country in the thirties would have thought quite impossible--this in itself might not be too difficult if everyone could continue turning out the same products as in peacetime--but you have to do something that is much more difficult than expanding production. That is, you have to convert a substantial part of your productive capacity from making the familiar and relatively simple things of peacetime to making the unfamiliar, often highly complex and difficult to fabricate, materiel of war.

This process of industrial conversion, as it is termed, calls for new equipment, new tools, new types of skills, new types of job training, and usually new plants in considerable number as well. This changeover from civilian to war production is slow, it is difficult, and it is painful. It is costly in manpower, materials, and, above all, it is costly in time, for many months are usually required to make the shift.

"All right," you say, "we get it. Economic mobilization is a whale of a job. Now that we know what it is, how do we carry it out? How do we make it effective? How do we go about mobilizing the economy?" Can we mobilize our economic resources for war simply by working harder, faster, and more efficiently, by working longer hours and extra shifts, by cutting out all possible waste, and by reducing civilian consumption voluntarily to bare essentials? 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 and on a purely voluntary basis?

It is true that in this country, as in England during the early part of the last war, there were large and influential groups who believed that this could be done--that we could meet defense and later war needs and at the same time carry on business pretty much as usual. This was the guns and butter school. There were many who firmly and honestly believed that the military needs could be put on top of the civilian needs and both met without disturbing the normal functioning of the economic system. I suppose there are still some--probably small in number--who believe that we attained our enormous production goals in spite of, rather than because of, the elaborate system of war agencies and the complicated controls which they administered.

I think it is fair to say that today nearly all informed persons are in agreement that this is not true. There is general agreement that our peacetime economy, what we call the free-enterprise system, operating normally, though under the spur of patriotism in the face of a national crisis, simply will not deliver the goods under war conditions. 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 radical changes are made in its operation, it is fair to say the economy will break down. I want to consider briefly why it is that free enterprise plus patriotism and lots of honest good will have little chance of carrying the war production load in an all-out war. Let us pretend that it will do the job, and see what happens. It is agreed at the outset that we will not interfere with the normal functioning of the economic system, that we will simply rely on the operation of supply and demand in the free market. Every individual will be allowed to go his own way, make money in his own fashion, and make his own decisions.

Just put yourself in the place of any ordinary, run-of-the-mill civilian, whether it be a manufacturer, a merchant, a workman, an investor, or a speculator. A defense or a war armament program gets under way. The armed services begin to expand. Orders for military equipment and supplies of all kinds are placed in increasing numbers and increasing size.

There is, first of all, a general increase in demand, slow at first, but an increase which steadily gathers momentum. It begins first in industries which supply the goods needed and used directly by the armed services. But, of course, these industries depend upon many others for materials and supplies of all kinds. So a big armament program, if maintained and enlarged, naturally provides a stimulus which spreads through the entire business, industrial, and agricultural fields. Before long we have an armament boom under way, and it grows steadily larger.

This increase in demand soon leads to the appearance of shortages and scarcities. These scarcities increase and spread progressively. Scarcities in one field give rise to scarcities in others. Substitutions are attempted. Scarcities appear first perhaps in production equipment and industrial capacity for the finished items required by the armed services; but they spread to critical raw materials, to skilled labor, to transportation, and so on.

The tighter supplies become, the more anxious everyone is to obtain them. Manufacturers overorder to make sure of being able to fulfill their contracts. They build up big inventories to protect themselves or in anticipation of additional contracts. They hire more workers than are immediately needed. 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 equipment which they anticipate will be in tight supply in a few months or so; they do the same for raw materials and even end products. They make the most of the speculative opportunities presented by a growing boom. Even consumers before long discover what is going on, and they too try to get into the act. Fearing shortages, they begin to stock up with consumers' goods--nylon stockings, canned goods, electrical equipment, and so on.

So it goes. All these influences react upon and stimulate each other. It is not necessary to refer to the Second World War or the First World War to observe these forces at work. We have all seen them at work in the last two months, since the beginning of the Korean crisis. Take, for example, the country-wide rush of housewives to stock up with sugar. Increasing shortages and mounting demands result in rising prices, as we have seen in recent weeks. Demand is in many areas to all effects and purposes unlimited, because the requirements of the armed services are so tremendous. Supply, on the other hand, can be increased only slowly, since you can get increased supply only by getting increased production; and once you have increased output to the limit of productive capacity, you can only get additional production through new facilities, new equipment, and elaborate employee training programs, all of which take time.

What happens when demand gets ahead of supply and stays there? Prices, of course, go up and up. Under the normal operation of the free-enterprise system this is fine. That is the way it works. You get increased production by making it more attractive to produce, by raising the ante, that is, prices, by getting manufacturers to work extra shifts and to put in new equipment. You will in time have new manufacturers entering the field, especially when production methods are relatively simple. But, when supply can't catch up with demand because the demand is so tremendous, prices take an upward spiral. Then what we get is inflation, because the increased prices of one man mean the increased costs of the fellow he supplies, and his increased costs are in turn reflected in higher prices for his goods, and so on, round and round and up and up in the familiar inflation spiral.

There are some who have argued and who will argue that speculation, mounting scarcities, profiteering, and inflation don't greatly matter; that the important thing is to get production. Money costs don't matter too much, because the Government can always raise plenty of money through taxes and war bonds. They argue that if we give the armed services unlimited funds, they can get what they need, simply by outbidding others in the market. There is nothing like high prices and high profits as a means of expanding production. After all, the argument runs, you can always recapture profits through taxation. This line of reasoning appeals especially to businessmen, for it is profits that provide the dynamics of our free-enterprise system.

The only trouble with this method of getting production in wartime, however, is that it simply will not work. A major objective in a war economy, it is important to remember, is a maximum diversion of productive resources from civilian to military uses, allowing the economy itself only enough to keep it in efficient production. You will not get this maximum diversion under the normal functioning of the economic system. Let's see why.

An uncontrolled war boom, instead of trimming the civilian fat from the national economy for use by the armed services, simply adds to that fat. The boom not only brings high profits; it also brings increased employment, longer hours, and overtime pay. It brings both higher wage rates, because wages begin to go up along with prices, and still higher take-home pay. It brings greater job security. All this, you see, adds up to steadily rising civilian incomes. These rising civilian incomes, quite understandably, are quickly converted into rising demands for consumer goods. Instead of civilian demands contracting to make way for military production, they compete with military demands. The civilian war goods industries have a war boom of their own. With easy pickings in their normal lines of production, many manufacturers will be reluctant to

# RESTRICTED

11

take on the headaches and uncertain benefits of war contracts. The civilian producers absorb manpower, materials, and equipment that are badly needed to make possible increased production in the war industries.

This is a very serious situation, because under the conditions I'm assuming here--the normal conditions of a free economy--you can't do much about it except write letters to the editor and make speeches appealing to patriotism. It doesn't really get us anywhere to have the armed services trying to outbid civilians in the market, because, after all, the funds that the armed services distribute through procurement contracts simply filter down into the hands of the civilian consumers at the other end of the line.

An uncontrolled war boom of the kind I've been describing, interferes with war production and the whole war effort in still other ways. It leads to unstable and often chaotic markets. It introduces uncertainties and confusion in almost every phase of production. The typical producer, the businessman, never knows where he stands. He doesn't know what is going to happen three or six months from now and often even two weeks from now. It results in production tie-ups as a result of the fact that some manufacturers have stockpiled on their premises a lot of materials that they don't need for the moment but expect to need a year, a year and a half, or two years from now. Even the government services are not exempt from this kind of stockpiling. I read in the papers the other day that one agency had accumulated a 247-year supply of manila folders!

One of the worst of the effects of inflation is one that doesn't hit production directly. Inflation affects different classes of people unevenly. While some benefit, most groups suffer during inflation, because, generally speaking, the incomes of wage and salary groups--especially salaried persons--lag behind prices. Those with fixed incomes based on pensions or securities suffer most of all. The result is much discontent and much criticism. There are charges and countercharges by labor, by management, by farmers, and so on, that each is benefiting, by profiteering or otherwise, from the war while the others are carrying the burden; thus inflation becomes a source of internal dissension and a boon to enemy propagandists. It creates low morale at home, and this spreads inevitably from civilians to the armed forces.

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

RESTRICTED

The inescapable conclusion, based on all the evidence, is that a war economy must of necessity be a planned economy and a controlled economy. Materials, manpower, equipment, and facilities must be allocated by one means or another to users in the amounts and in the order of priority determined by war needs. In many respects this concept of priority is the central concept in economic mobilization--that is, who must get what, and when, in order to have the goods necessary to carry out strategic plans and attain strategic goals. Priorities for the essentials required to meet strategic objectives cannot be determined by competition in the open market. They have to be established and they have to be enforced by a central authority.

So in economic mobilization we deal continually with many kinds of controls--controls that are contrary to the principles of a free economy; controls over materials, manpower, prices, wages, exports, and all the rest. What it really adds up to is this: To mobilize our economic system for war is to organize and run the economic system as one great factory, as a tremendous national enterprise, in which tens of thousands of large-scale productive organizations are subordinate parts and all these parts must be coordinated and kept in step with each other as closely as is humanly possible.

It is clear from what I have said 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, in themselves are very difficult ones, but they are problems in whose solution we Americans have long excelled. The most critical problem, however, is not directly in the field of production. It is the problem of keeping the economy stabilized and coordinated, and of keeping it from running wild as a result of the inflationary pressures that are so powerful, inflationary pressures that are not subdued simply by passing a number of laws. The market, operating through supply and demand and through prices, breaks down as the automatic regulator and coordinator of the economic system. It breaks down for the reason I have previously stressed--that supply and demand are so far apart they cannot be brought together or even reasonably close to each other. Therefore it is essential that the Government intervene to provide the balance and the coordination that the free market supplies in peacetime. And this is done, artificially if you like, through the types of controls I have described.

This brings me to what in my mind is in many ways the greatest practical problem in mobilizing our economic system for war. This is the problem of setting up the organization and establishing the administrative techniques and procedures for operating the essential controls. It is a problem of extraordinary difficulty, for many reasons. For one thing, the cards are stacked against those who are charged with this tremendous task. To begin with, the control functions are not performed in peacetime. It is necessary to start from scratch in building up the control agencies, either within the established

departments of the Government or as new and independent defense agencies. And these vital agencies have not only to build up their organizations and recruit competent personnel, but they have to train their personnel and acquaint them with the job to be done. Often, as in the last war, it is necessary first to determine and define the nature of the job itself. The agencies must devise and perfect the complex procedures essential for doing this job. They have to determine what facts they need, for the factual data required in wartime are different in many respects from those that are used either by government or business in peacetime.

The job of assembling relevant data is a vital one and a slow and difficult one. Yet with the facts, the Administration will work blindly, in both the formulation of policy and the administration of policy. Then, too, there are great difficulties in overcoming resistance to the imposition of wartime controls. Highly individualistic people such as ours have in previous wars been very reluctant to accept without a struggle the regimentation involved. There are powerful pressure groups, representing every important interest, that protest, obstruct, and resist in one way or another both the introduction and the operation of the system of controls. Today it is worth noting, however, that general public sentiment seems to favor controls rather wholeheartedly. Even the pressure groups that in the past have fought so persistently one type of control or another appear less actively in opposition.

Another problem that the control agencies have to cope with is the political problem. Partisan politics get very much into the picture, and this naturally adds to the difficulties of the war agencies.

Finally, the very size and complexity of the job of administering the war economy by the central government, that is, in this country, the Federal Government, presents enormous difficulties. We lack the knowledge, the understanding, and the experience needed for the job, though we are better off today, in many respects, than we were at the beginning of the defense crisis of 1939-1940. We do have the recent experience of the last war rather vividly in mind. Owing to these numerous difficulties, a shift from free economy to a planned and controlled economy is a slow and cumbersome process.

Obviously, economic mobilization is a subject of the greatest importance to the armed services. The scale, the intensity, and the duration of any military effort depend on the effectiveness with which this mobilization is carried out. General Holman pointed out that the armed services are simply the cutting edge of a great war

RESTRICTED

machine embracing all the resources of the Nation. A primary condition of success is close and effective teamwork of all parts of this machine, and especially between the civilian and the military parts.

It is absolutely essential that the armed services have an awareness and an understanding of at least the fundamentals of economic mobilization--of its general character and necessity and of its principal conditions and major problems. Military strategy must be closely related throughout to the ability of the economic system to support the operations called for by that strategy. The economy has to support these operations with manpower, shipping, aircraft, military equipment, and supplies of all kinds. For the services to ask for too little is, if not to risk the loss of the war, to risk prolonging it and adding to its human and material costs. Perhaps an even greater danger is the danger of causing a breakdown of the economy and conceivably the loss of a war by insisting on too much.

Some of you may feel that these are overstatements, that I am exaggerating the role of the economic factors in war. Or, while admitting their importance, you may feel that the responsibility for them is a civilian responsibility and not the particular concern of the military. General Holman spoke on this point the other day and, because it is so important, I am going to stress it again this afternoon.

Few inside the military establishment today in positions of responsibility accept the view that the military should have no interest or concern with economic mobilization. The fact is that to an important degree the economic factors in wartime are a direct military responsibility, because the armed services have primary responsibility for one major phase of economic mobilization and that is military procurement. They design, develop, and place contracts, and they supervise the execution of contracts, for all their supplies and equipment.

In carrying out this procurement in wartime the services exercise tremendous purchasing power in every important national market. Our total war outlays in 1943 and 1944 came to over 50 billion dollars or some 43 percent of the national income. Of these astronomical sums the services spent about three-fourths. The impact of such purchases, concentrated in the hands of what is now a single great defense agency, on the economy is tremendous. It can be compared to economic dynamite in its potential effects upon the working of our economic system. Unless it is handled with the greatest care, it can produce very great harm. There is no use putting controls on civilian producers and on the civilian consumers if the services themselves in exercising this tremendous economic

RESTRICTED

influence do not exercise restraint and intelligence and handle their procurement operations with intelligence and care. Badly handled procurement can disorganize markets, stimulate speculation, create serious shortages, and promote inflation. These developments in turn will lead to productive inefficiencies and can seriously hamper the attainment of production goals.

It is unnecessary to labor these points further. Throughout the course the great economic responsibilities of the armed services in both peacetime and wartime will be stressed.

In closing let me recapitulate briefly the principal points that I have emphasized in my remarks this afternoon.

I have given you a definition of economic mobilization. There is nothing sacred about this definition, especially on a word-by-word basis. Economic mobilization is simply the process by which all the resources of the Nation are organized and directed in support of the armed forces for defense or war.

My first major point is that modern warfare is not simply a conflict between armed forces. It is a struggle enlisting all the resources of the belligerent powers.

Second, 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.

Third, 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.

Fourth, 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.

Fifth, an understanding of the nature and problems of economic mobilization within the armed services is essential for two basic reasons: First, because it is necessary to obtain close and effective coordination of the military and economic phases of an all-out war effort, a coordination that works both ways; and, second, because responsibility for the conduct of a major aspect of economic mobilization rests by law as well as by long tradition with the armed services, that is, the procurement of all military personnel, equipment, and supplies.

Now let me make one final point in closing. In the preceding classes of the postwar Industrial College from 1946 to 1950, economic mobilization was always something that belonged to and had taken place in the past. This class has the extraordinary opportunity, denied by circumstances to previous classes, of observing economic mobilization at first hand. This country is, of course, in the early or defense stage of mobilizing the economy for an emergency, an emergency the ultimate scale and character of which is not possible to foresee. This emergency not only gives added point and meaning to our study; it will continually provide us with fresh data and valuable illustrative material bearing on every phase of the course. For this reason the newspapers will be an indispensable textbook, though not on the required list to date. Inevitably and desirably, our course has lost a great deal of its academic quality. Thank you.

GENERAL HOLMAN: I noticed that you used the personal pronoun "we" in the early part of your talk. Would you explain to us the authority and the programming of any particular economic mobilization plan, and briefly who administers it, who handles these economic stabilization controls?

DR. HUNTER: Thank you. I am glad you caught me on that. I get into the habit of using "we." This was not the editorial "we," in other words, myself. Nor did it refer to the military establishment of which all of us present are a part. I meant rather "we," the Nation, "we" Americans.

Actually, the military establishment has only a limited responsibility on the planning side with respect to economic mobilization, and this relates chiefly to procurement and related measures of industrial preparedness.

Prior to World War II, planning for industrial mobilization, as it was then known, up to 1939, was a statutory responsibility of the War Department. It was supervised and coordinated by the Army and Navy Munitions Board. The ANMB operated as a joint planning agency during the 1930's, planning for what was then called industrial mobilization. As a result of the Security Act of 1947 and its amendments, planning for economic mobilization has been divided up into two segments. The responsibility for planning for the military aspects was assigned to an enlarged Munitions Board, which now has a statutory basis. The National Security Resources Board--a now, independent agency, responsible to the President--was set up, with the responsibility of planning for economic mobilization in its over-all aspects. So we have these two economic planning agencies--one is military, the Munitions Board, and the other is civilian, the National Security Resources Board. It was generally accepted and understood back through the twenties

and thirties that, whereas Congress had assigned the responsibility of planning as of that period to the War Department, actually when an emergency came, the actual administration of the war economy, apart from procurement, would be in the hands of civilian agencies established for the purpose.

QUESTION: You mentioned in your talk that in 1939, 2 percent of the national income was spent for defense. Then you went on to say that it reached a peak in 1943 and 1944, where it was about 43 percent. Can you tell us how much of the national income we are spending now for national defense?

DR. HUNTER: I can't be too exact but I believe that prior to the Korean crisis the military budget was around 15 billion dollars. Our national income has passed the 250-billion mark. I think now it is at the rate of approximately 260 billion dollars a year. Is there a mathematician in the audience who will figure that out?

MR. MUNCY: It was reported last week at the rate of 270 billion dollars for the last quarter.

COLONEL BARNES: If you call it 250 billion and add the 10 billion they have just asked for to the previous 15 billion in the budget that will make it 25 out of 250 billion dollars. We can all figure that.

DR. HUNTER: Ten percent.

QUESTION: In line with that same question, you indicated that it is not possible to add a tremendous military expenditure to our civilian expenditures without setting up a system of controls. Now, if we go into a period of partial mobilization--and, obviously, no one can predict how long it would last or whether we will eventually go into total mobilization--do you think that we could maintain our military expenditures at double our current rate, that is, 20 percent of our national income?

DR. HUNTER: You mean up to 50 billion instead of 25 billion dollars?

QUESTION: Yes. Do you think we could maintain that and still avoid a completely controlled system such as we had to impose during World War II?

DR. HUNTER: Whether we can do that without complete controls is a little difficult to say. But I think we are at a point now where our economy, even before the sum of 10 billion dollars is added as a result of the Korean crisis, did not have a great deal

of slack left in it. You can do something more to increase production. You can put on extra shifts. You can pull more women and older men back into war production. It may be that the pinch will come first only selectively, on certain types of raw materials.

In my judgment, I think we cannot go much beyond the point where we are now without instituting some kind of limited, partial controls, like spot controls to deal with critical situations. Whether we could double our present expenditures without full-scale controls is difficult to say. I am inclined to feel that we would get pretty close to full controls.

QUESTION: Is it possible merely to have partial controls? Can we establish in this economy of ours a degree of control that is something less than full control and something more than a free economy? Do you think that is a feasible approach in the current situation?

DR. HUNTER: I think it is feasible. We did it in the last war. We didn't have all-out controls. We didn't have complete controls of our manpower. Other controls were of a very limited character. Our profit controls were carried only so far. We didn't nationalize industry. We did allow free enterprise to function, both as regards industry and labor and as regards the farmer, within a certain restricted area.

Of course, sometimes it seems that it would be simplest to go directly into all-out controls. It would seem to solve so many problems if we could only go all out. But throughout, in dealing with problems of this sort, one has continually to work and think in terms of the public response to the situation and to the methods proposed for dealing with the situation.

A view widely held among those who have given much thought to the problems of economic controls is that the public has to be convinced that there is a real necessity for controls if such controls are to be effective; then the public will go along if they are convinced of the necessity for the controls. But if the public isn't convinced, it doesn't do you much good to put the controls into effect on a paper basis, because you will simply get evasions and violations of the law, black marketing, and that type of thing.

QUESTION: Some of the questions that have been asked seem to be predicated upon the premise that we are not now in a controlled economy. Is it not true that our present economy is partially controlled, with stockpiling, draft, OPA, and such things as that? Isn't that a part of economic mobilization?

DR. HUNTER: That is true, in a sense. We have many varying degrees of control. To the extent that we have the draft, we have a manpower control, though here it is for military rather than for production purposes. With reference to stockpiling, I think there you have a type of control. It is a rather indirect type, and it has not been carried out very aggressively. The Stockpiling Act has been administered so far as possible pretty largely by going into the open market and buying certain raw materials. Those responsible for administering the act have been very sensitive to industry's response to the carrying out of the stockpiling law, and to industry's protests.

You may recall that when the Stockpiling Act first went into effect, there were some protests from certain areas; "How can we reconvert industry to peacetime production if we can't get these materials?" There was an article in the "New York Times," business section, this morning about a meeting of some industrialists in which the stockpiling activities came under criticism. The implication was that too much of it was being done in the wrong way. But for the most part stockpiling operation has been an open-market operation, that is, a free-enterprise system of operation. The industrialists have not gone in and confiscated or commandeered supplies of materials that they want to stockpile.

COLONEL BARNES: I think it might also throw a little bit more light on that question if you distinguish in your minds between economic controls and measures for economic readiness. The stockpiling program is an economic readiness measure. We are preparing in peacetime so as not to get caught short in wartime. Priorities, allocations, price controls and rationing--those are economic controls that are put into effect to change the normal system in order to get more for the military from the output of the economy than would normally be the case without them.

DR. HUNTER: I might add another point there. There are many who feel that we no longer have a free economy in this country, even quite apart from any economic mobilization; that the regulations that surround business enterprise in so many fields have gone to the point where there are decided limitations at least upon the free-enterprise system. We have a dozen or more Federal regulatory agencies--the Interstate Commerce Commission, the Federal Power Commission, and so forth. So when we speak of having a free-enterprise system here, it is well to remember that in some respects we have a regulated economy, an economy which is in certain important respects regulated even in peacetime. We will get into that at a later period of the orientation.

QUESTION: I have two questions. First, don't agricultural parity programs constitute an economic control?

DR. HUNTER: Yes. That is a control established in the peacetime economy.

QUESTION: Any further steps would be simply an extension of that?

DR. HUNTER: It might well be simply an extension but one designed to direct agricultural production into those fields where defense demands would be heaviest.

QUESTION: If it is done skilfully, the public is already conditioned to the extension of controls?

DR. HUNTER: In a measure, yes. There are always problems to be faced in obtaining acceptance for any law establishing a new kind of regulation or control: How will the public in general, and how will specific interest groups, respond to the situation.

QUESTION: My other question is the main one. The controls during World War II were administered by groups recruited from industrialists. Right now, in the first steps that we are taking for mobilization, the idea seems to be that the established government civilian agencies are claimant agencies for various control functions. There must be some political considerations involved in that decision. I don't suppose we will ever get away from those political considerations. But, aside from that, what is your idea as to the relative merits of control boards recruited from industry and controls, say, located in established government bureaus?

DR. HUNTER: You have touched on one of the most debatable issues in the field of economic mobilization. To give an adequate answer I would have to hem and haw on the pros and cons, and it would really be quite a discussion in itself; and among the various members of the staff and faculty here there would be hands going up. It is a thing that has been debated back and forth by every class. It is a major issue that has been debated by each class since the end of the war. I don't mean to brush off the question--it's a good question--but it would get me into too much hot water for this afternoon.

COLONEL BARNES: I might add that ten months from now you will still be worrying about the answer to that same question, only you will be doing it in a report.

QUESTION: In that same connection, the point has been made that the three military departments and the Munitions Board have only one side of this whole economic mobilization picture, that the real administration of it is normally a civilian function. You have made the point that it is no longer an academic question.

DR. HUNTER: That is correct.

QUESTION: We are moving into it clearly here, but I have never heard of any training school, such as the Industrial College, for the civilians who are going to be on this civilian side of the picture, the opposite numbers of all these gentlemen in the military side of the picture. Is there any such school as that, or has there ever been one? How do we get the training for the civilian administrators for their part of this program?

DR. HUNTER: Your point is a very interesting one. There is no such school. I think General Holman pointed out the other day that there are a number of universities that are beginning to introduce courses in economic mobilization. The various government agencies are sending a number of men to participate in our course. Last year we had the first quota. We have a somewhat larger quota this year. But that is the answer. There is no such organization.

Now, how are they getting the training? Well, that is something else again. The National Security Resources Board in its work with industry committees of many kinds represents, I presume, if not training, at least giving the men of business and industry who are associated with those committees contact with and awareness of the type of problems that the NSRB and the Munitions Board are working upon.

QUESTION: We read a great deal about labor unions clamoring for price controls but opposing wage controls. Is one feasible without the other?

DR. HUNTER: I think the consensus of those who have given careful attention to the problem and of those within the Government responsible for dealing with it is that the two things are not separable; that they are tied together. Everyone can understand why the labor unions make this demand. It is good tactics if nothing else. Perhaps they may see some advantage in it. But the two things are inseparable.

QUESTION: I understood you to say that you felt the establishment of adequate administrative machinery for control procedures was exceptionally important in economic mobilization. I wonder whether you would go a step beyond that and say that it is not only necessary to establish administrative machinery, that is, to establish procedures whereby these controls could be set up, but the really important thing is to set up the statistical or economic techniques whereby you can measure the effectiveness of the procedures, the controls that you establish.

DR. HUNTER: Certainly that is a very essential thing. Unless you have the machinery for gathering adequate statistical data, you are compelled to work more or less in the dark. In both World Wars, especially in the Second World War, where controls were the more numerous and complex, one of the major problems was to get an adequate statistical base for determining policy in the first place and for use in checking upon the effectiveness with which policy was administered.

QUESTION: The "bad boy" in your definition of mobilization, whether economic or industrial, seems to be the armed forces. It appears to me that in mobilization the armed forces, although they do take a greatly increased load, are not the only bad boy involved. Wouldn't it be better in the definition to leave the armed forces out of this picture and say "to meet the emergency regardless of where the emergency may be," whether it is the armed forces or industry or whether it is the Marshall Plan, using up six billion dollars a year, that is doing it?

DR. HUNTER: I am sorry to have given the impression that the armed forces are the "bad boy" in this field.

QUESTION: In the definition in each case the armed forces were the ones that were causing the economic mobilization.

DR. HUNTER: Oh, no.

QUESTION: It isn't the armed forces, as I see it; it is the emergency.

DR. HUNTER: That is right. I had no intention of suggesting or implying that it was the armed forces.

QUESTION: I wonder if in the definition we couldn't leave the armed forces in words out of the picture and identify it as the emergency only. The armed forces may take part in solving an emergency, but in the case of the Marshall Plan the armed forces are not the ones that are solving the emergency at all. The Marshall Plan is doing it there. We are shipping our goods, part of our economy, to Europe, not for our armed forces, but for, I guess, our allies.

DR. HUNTER: In the definition I am simply recognizing the fact that the armed forces do present the military front and that therefore everything is secondary in a war economy to supplying the Nation with the equipment necessary to carry on the war. If you will feel happier in substituting "Nation" for "armed forces," the change might be made. But the armed forces still are charged with their traditional responsibilities.

QUESTION: That is the point. Is everything secondary to that? In World War II was everything secondary to supplying the armed forces?

DR. HUNTER: Ideally it was; practice didn't always correspond to ideals.

QUESTION: Or was maintaining the economy of England equal to supplying the armed forces?

DR. HUNTER: When I say "secondary," I mean this, of course, in a qualified sense. Everything is not secondary to the maintenance of American institutions and ideals--the things we are presumably fighting for.

COLONEL BARNES: We might say that economic mobilization is supporting the military effort, or we might substitute and say it is supporting the national objective; but normally in a wartime economy the military effort is the thing that stands out in front. During the last war lend-lease to Russia or keeping the people fed in England was all part of that military effort, part of the national objective.

MR. MASERICK: I believe you made the point that approximately 10 percent of the national income is required for this partial mobilization that we have gone through or are going through now due to the Korean situation, and that in World War II approximately 43 percent of the national income was required for the mobilization. Have we estimated or do we know what percentage of the national income would be required for a total war effort?

DR. HUNTER: I will take a shot at answering that if you will tell me how total is "total." I don't mean to pass the buck. Perhaps I might put the question in another way. How far can a nation like ours, or any other modern industrial nation, go in applying its resources to war purposes? England and Germany, I think, required something like 52 percent. I haven't seen any figures on the USSR. We know, of course, that in the last war we were far from being fully committed. The civilian population in the main lived better than ever before.

How far can we cut down the standard of living? How far can we push up the 43 percent that we spent on the last war? Can we push it up to the figure reached by Great Britain? Can we push it up to 60 or 65 percent or in a case of desperation even higher? I don't suppose anyone can anticipate how far it can go. It will depend on the whole complex of circumstances existing at the time which influence the determination of the American people to support the war and make general sacrifices to this end.

COLONEL BARNES: Thank you very much, Dr. Hunter.