

Course 1933-1934

STRATEGIC COMMODITIES

by

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Gentlemen:

A strategic commodity is one in which domestic production will insure only a minor portion of the requirements for war, the major portion having to be imported from foreign countries.

A critical commodity or material is one in which the domestic production is approximately equal to the requirements but the uncertainties of distribution in war make control necessary to prevent a shortage.

I would like to express one thought at this point. In war there is no great increase in the use of raw materials or commodities over a normal year in which conditions are good in the business world. For example, in war there will not be a great deal more raw materials used than in 1929. If import channels were not disturbed by the war there would be no difficulty in securing strategic materials, but on account of the sea lanes being disturbed, transition from the normal economic processes of peace to the processes of war causes shortages. In peace, as I said before, in a boom year, the volume is approximately equal to the military requirements but it is of an entirely different nature. In peace materials are being used for building bridges, or houses, and many other purposes of production instead of being turned into the production of munitions.

It was the uncertainty of raw materials and commodities in the World War that formed one of the principal reasons for the creation of superagencies, and most of the superagencies that were created had a close relation to this shortage of raw materials or commodities. Most of the efforts of the Fuel Administration, Finance Corporation, War Trade Administration, and the War Industries Board were devoted to insuring raw materials at the required places of consumption.

As you all know, there was early in the war in the Council of National Defense a Raw Materials Section, and later, in the War Industries Board, a Commodities Division was created and became the most active of all the divisions of that Board. The Commodities Division was the point of contact of the War Industries Board with industry. The Commodities Division had some sixty-odd commodity sections, each one of them having a War Service Committee, and all of the executive decisions, policies and plans were passed on to industry through the medium of the commodity sections of the Commodity Division.

General Johnson who is now administrator of the National Recovery Administration, was associated with the War Industries Board and wrote the best report, and the longest, on the operations of the War Industries Board. I have read his report rather carefully in the last few months and was interested to find written through that report (long before the creation of the N.R.A.), many of the statements, policies and thoughts that he has since crystallized in the N.R.A. Mr. Baruch, as you know, was the head of the Raw Materials Section of the original Council of National Defense and later became head of the War Industries Board. He always stressed the importance of the Commodities Division and the importance of raw materials. In his report on the activities of the War Industries Board he expressed the opinion that the Commodities Division was either the foundation or the keystone of the arch, I forget which, and left as his parting injunction to the nation that a group of officers should be engaged in peace time in carrying on the work of gathering information regarding sources of raw materials and making plans for adequate and reasonable distribution for the next war. I think probably the present Section 5a of the National Defense Act and the Planning Branch, O.A.S.W. is due to the efforts of three men - Mr. Crowell, Mr. Baruch and Mr. Baker. As a result of this Section 5a and the thoughts that had been passed on down since the war, the Planning Branch, O.A.S.W. was organized under the very able direction of Colonel H. B. Ferguson, and we people in planning work owe a very great deal to Colonel Ferguson for his grasp of the subject and his inspiration in carrying on the work. You will find his footprints spread all over the Planning Branch and especially in the Commodities Division. This Division as now constituted is one of the divisions of the Planning Branch of the O.A.S.W. It is divided into fifty-four Commodity Committees of which nineteen are active and have personnel assigned to them for active work. These nineteen active Commodity Committees include all of the strategic materials and the most important of the critical materials.

The active Commodity Committee as now constituted is made up of representatives of the Supply Arms and Services, and the chairman of the committee is from the Supply Arm or Service having the greatest stake in the commodity covered by that particular committee.

I repeat that in time of peace the members come from the Supply Arms and Services. In time of war all fifty-four of these committees would become active and the members would be industrialists who had a knowledge of the commodity concerned but with no particular financial interest in any of the companies engaged in producing that commodity. Likewise from the Government Departments - Bureau of Mines, Geological Survey, etc., personnel would be obtained for the commodity committees, this personnel functioning in

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an advisory capacity. As part of the Commodity Division set-up in war, each committee has a War Service Committee attached to it. This War Service Committee is from the industries concerned - from the very people whose revenue is being affected by the Government buying their commodities. So, on the one side you have a disinterested group knowing the subject and on the other side an interested group knowing the subject, the interested group carrying out policies set by the Commodity Committee.

The Army and Navy Munitions Board is organized with a Commodity Division and commodity committees similar to those of the O.A.S.W., and the chairman of the War Department Commodity Committee, and the chairman of the Navy Department Commodity Committee constitute the Commodity Committee of the Army and Navy Munitions Board. We have had most cordial relations with the Naval members of the committees. They have attended all of our meetings and have taken an interested and prominent part in our discussions. They have participated with us in forming conclusions.

With reference to our relations with the N.R.A. we have an officer on duty in that organization who has been there since last summer - Captain Battley. He has now risen to the rank of Deputy Administrator. The officers of the Planning Branch and Commodity Committees are administrative members on at least one code each. I am the administrative member on the cement code.

Now taking up materials, they are divided into two classes, strategic and critical. The strategic materials are included in the commodity committees that are active. During the past years, as initiated by Colonel Ferguson, complete studies have been made for each of the twenty-six strategic materials. These statistical studies have been revised from year to year and now will be revised again within twelve months to take account of recent developments and the new Army plan. This study shows requirements for the Army and Navy and the civilian population, and sources of supply and outlines the plan of procedure for handling a particular commodity. In the group of twenty-six strategic materials you will find every possible condition. There are no two alike. They range from nickel, of which we have no domestic production (it is all in Canada) to others with a material domestic production. For all of these strategic materials study has been given to the utilization of substitutes and I think, all things considered, steady progress has been made, although it is very, very slow. Even when a substitute is known that will serve better than the original material, it is hard to get the Supply Arms and Services to use it, even though it is better. In our committee on hides and leather we found that the specifications of a splint for a broken thigh bone call for the finest quality of leather when everybody admitted that artificial leather was just as good or even better. It will take years for us to achieve acceptance of suitable substitutes.

We have activities relating to conservation. Take the question of drugs, for example. It is surprising to note that an appreciable percentage are used in the manufacture of patent medicines. A lot go to uses not prescribed by physicians so in our plans we realize that if the patent medicine use of drugs could be prevented and they were only used at the instance of reputable physicians, this conservation measure would go a long way in making up shortages.

Last Tuesday we finished a series of meetings, nineteen in number, one each Tuesday morning, covering the nineteen active Commodity Committees. During these we analyzed conditions affecting each of the war materials studied by the Commodities Division. We analyzed the data we had on the sources of supply, distribution, production, secondary production, etc., and drew conclusions as to how serious we considered that particular material, what steps should be taken in the future in reference to it, etc. Very careful minutes were taken of these meetings. Data sheets were prepared and this series of minutes and data sheets constitute a very valuable asset in our office - this constitutes the last word on these subjects.

At a meeting of the Army and Navy Munitions Board some six weeks ago the subject of strategic materials was discussed and the Commodities Division of the Planning Branch was requested to prepare a study on strategic materials and draw conclusions as to how much of these should be available on M Day to insure an adequate supply for a twenty-four months' war, and submit the study to the Army and Navy Munitions Board for submission to the Joint Board.

As you all know, there has been some discussion of receiving strategic materials as part payment on the war debts. In connection with Russia there has been consideration given to the United States buying strategic materials from Russia. The War Department has gone on record as to its views on this matter but what the outcome will be nobody knows.

Now with reference to this report to the Army and Navy Munitions Board, it will state our judgment of how much of these strategic materials should be available on M Day. I do not mean the amounts must be physically in this country, but their supply must be assured to make us safe for a twenty-four months' war.

I want to refer to Commander Heim's committee report of a few days ago on "Foreign Commerce." He made the recommendation that a subcommittee of the Joint Board be formed on which representation should be obtained from the War Plans Division of the

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General Staff, War Plans Division of the Navy Department, Office of The Assistant Secretary of War, and Bureau of Supplies and Accounts of the Navy Department to study this subject of strategic raw materials, where to get them, etc. It is my conception that this report which tells exactly how much we need should reach the Joint Board so that when M Day breaks we should get better results than we would by just knowing it down here or getting this information through to higher echelons after M Day.

I am going to discuss some six or seven of the strategic materials. I have endeavored to pick out ones of different types. I shall start with manganese. Most of us consider this probably the most important of the strategic materials. It presents the problems of inadequate domestic production; there are sources of supply in Cuba which we believe can be made available but the remainder must come from foreign countries. There are four nations in the world which have an abundant supply of ferro grade of manganese ore. They have only to pick it off the ground. We have a low grade manganese ore but it is not suitable for the manufacture of steel. Steel manufacturing technique is built around the use of ferro-manganese, a metal which is made from fifty per cent ferro-manganese ore. Russia, India, the gold coast of Africa, and Brazil have large quantities of ferro grade manganese ore. In this country the low grade ore has to be concentrated and that extra step in manufacture, with labor costs as they are, make the final cost such that we cannot compete with foreign importations although they are assessed by duty of one cent per pound of metallic manganese - \$11.20 per ton duty on fifty per cent ore. Russian ore at present is selling in this country at \$11.20 plus \$11.20 for duty, making \$22.40 a ton. That grade of manganese ore cannot be produced in this country under \$30.00 a ton.

In Cuba there have been recent developments of a very encouraging nature. There is a manganese deposit near the eastern end of Cuba in which the geologists estimate there are twenty million tons of manganese ore, less than twenty per cent manganese, but due to lower labor costs and the more uniform grade of this ore they can concentrate it into ferro-grade manganese ore and bring it into this country and compete with foreign trades because they do not pay duty. It is low in phosphorous. The Russian ore is high in phosphorous. The Cuban ore is used to a certain extent with the Russian to bring down the phosphorous content. There is a political side as well as a strategic side to this material. We have a group of producers in this country, with lots of claims and very little to back them up. If we said we needed one million tons of manganese ore this domestic group would clamor to manufacture it. They claim

they have enough ore to carry on for a number of years. The steel industry does not like domestic manganese ore for this reason: The ore is scattered, some in Arkansas, some in New Mexico, etc., in small deposits, consequently when it reaches the steel plant each kind gives a different chemical analysis and the technique of steel making has to be adjusted to the different grades. Consequently there is reluctance on the part of industry to use this material. They like the Cuban manganese ore and foreign ores. In every quality of manganese ore except the ferro grade this country is self-supporting. The requirements for two years of war are estimated to be 1,500,000 long tons of manganese ore. We can count on thirty per cent from domestic sources, twenty per cent from Cuban, and the remainder has to be imported.

Tin is an important strategic material; its use is growing. There are some substitutes but not appreciable in number. There is no domestic production of virgin tin, consequently it all has to be imported. It comes from the Malay States and is a closely controlled commodity, as you will notice from the price rise in the last few weeks. The tin recovery industry in this country is important to national defense. Just recently the Japanese have been taking all the tin scrap out of this country by offering double the price, and the de-tinning industry has found itself without raw material to carry on work. They have petitioned the President to place an embargo on the exportation of tin. It is rather a ticklish question, both legally and economically.

Nickel is a strategic material, the use of which is growing. Alloy steel is becoming more and more important all the time. Here we have a commodity of which there is all the supply the world can use within two hundred miles of our border. We have no production within our own borders. There was a refining company in New Jersey but the refining activities have recently moved to Port Claiborne on the Canadian side of Lake Ontario. At this time there are twenty-five million pounds of pure metal at this point.

Chromium is another of the strategic materials, the use of which is increasing rapidly. Chromium is used in the alloy metals. It is used wherever rust prevention is desired and Army and Navy uses are growing rapidly, particularly in the Navy. There is some talk of their guns being made of it, to be rust-proof. There is some production of chromium in this country of limited quantity and limited availability. Labor costs work against it and there are large imports of chromium ore.

Rubber. We have no domestic production of rubber. All of it comes from the Malay states. We need it in increasing quantities because of the placing of rubber tires on guns and vehicles.

At the present time there are abnormally large stocks of rubber in this country - four hundred thousand tons; also old rubber from which reclaimed rubber could be made. This is an unusual condition; the low price of rubber and the depression have resulted in the accumulation. In good times the amount available in this country will be much smaller.

Wool. As compared with the other strategic materials its use in war is very much greater than in time of peace. Every soldier and sailor is clothed from skin out in wool. This clothing is all made from new wool and requires a large amount. Eight hundred thousand tons will be required, of which this country produces about one half.

Hides and Leather - another interesting commodity. Here we run into substitutes and reluctance in peace times to accept them. Artificial leather will fill practically every need for leather except for soles of shoes. In many instances it is better - for carrying cases, etc. Our recent Commodity Committee showed artificial leather that looks like leather and you can bend it without it showing a sign of cracking. We must make use of artificial leather because our total domestic production is not more than half of the requirements.

I shall now come to a type that has ceased to be a strategic material. During the war nitrates gave us as much concern as any other one material and the source in Chile loomed very large in the picture of every nation except Germany. It was due to Germany's not relying on Chile's source that has since made us independent. With our development of air fixation of nitrogen we no longer depend on Chilean nitrate. We are now self-supporting in nitrogen.

Steel is not a strategic material at all. It is our strongest industry but more pages in General Johnson's book were written about negotiations and activities in steel than in any ten other materials, so steel does loom large in the commodities committee picture. I am going to New York tomorrow for a conference with the American Iron and Steel Institute regarding steel and I shall try to put Major Minton's committee plan into effect.

Now we come to control. It is easy to say we will control the supply and distribution of a material. Easy said, but when you try to work out the solution it is not so easy. Last September a board of Reserve Officers, three in number, sat for two weeks in the Commodity Division and they were asked to submit a plan for the control and distribution of commodities in war. One of them was a professor of marketing at the Harvard

Business School and we thought he would know about this subject. And he did. Another member of the board was Sales Manager of the International Nickel Company. We said "Here is a man who knows distribution", and he did. The third member was a man who had been on duty in the Ordnance Department during the war and was actually charged with duties pertaining to the control of cotton linters. From that board we got three excellent studies and some very fine ideas. They did not agree in detail but the general principles were the same, and that board helped us materially in formulating our ideas. From those reports the Commodity Division worked out two plans, one, a transition period plan and the other, a superagency plan. We have a peace-time organization at the present time. Our Industrial Mobilization Plan provides a very ornate and very elaborate super-agencies plan with all sections provided, but it is going to take some time to put that into being. There is going to be a period of uncertainty for some months and to meet that uncertainty we have prepared this transition plan. Without meaning to criticize the other plans, I want to say they are organization plans. They are not operation plans, but in this transition plan we attempt to say what we are going to do and likewise in the superagencies plan we attempt to say what would be done. I shall read two pages from the transition plan:

1. The Industrial Mobilization Plan, 1933, prescribes the superagencies contemplated for a major war and details the organization of the Office of The Assistant Secretary of War and of the Army and Navy Munitions Board under this superagency set-up. It is feared, however, that the Industrial Mobilization Plan will not be in full operation for a considerable period after the outbreak of war, perhaps three months. For this period pending full establishment of superagency administration some sort of transition plan is necessary in order to prevent dissipation and misapplication of raw materials and commodities.

2. The transition period plan is formulated on the assumption that no war legislation has been passed by the Congress, except a declaration of war, an authorization to the President to prosecute the war, and making funds available. The transition period plan is based largely on the psychological realization that the people will favor the war and that this support by the people of the war can be used as a motive force to make the transition plan workable.

3. a. To stimulate and crystallize public support it is proposed that the President shall issue a proclamation to the people stressing the seriousness of the situation caused by the war, the necessity for the people submitting

to certain privations, and the necessity for being economical in the use of those materials which are needed in war; reminding industry of the great burden it is to carry in the war effort, and that the Government expects fair dealing and unusual effort on its part; and calling upon trade associations for their support in the war effort and emphasizing that they should not only represent their own industries but also assist the Government in protecting the public welfare.

b. In order to insure the supply of raw materials and commodities to war uses at a reasonable price, trading in these materials on exchanges should be strongly discouraged. Industry should likewise be encouraged to freeze certain designated stocks and hold them for distribution as approved by the Government. In this, consideration must, of course, be given to contractual obligations and to the necessity of keeping plants in operation. Material interference with businesses having no deleterious effect upon the war effort must be carefully guarded against. For example, if we were fighting a defensive war and had no allies to feed, there would be no sense in encouraging our people to unnecessarily skimp on food. Under the circumstances stated, we would have a surplus of food. Careful thought must be given to the subject matter of the President's proclamation to make sure that it does not impair the very necessary morale of the people by urging conservation measures that are not only not necessary for war effort but might even cripple proper and necessary business of the people.

4. The transition plan is built around the Army and Navy Munitions Board. This organization now exists under a peace-time set-up and represents both the Army and the Navy, that is, the fighting forces. The Army and Navy Munitions Board is qualified and empowered to settle measures involving the two services, and its organization should establish contacts with industry and present a coordinated picture of the war requirements. The Commodities Division of the Army and Navy Munitions Board should be the point of contact with industry and the Commodity Committees of the Army and Navy Munitions Board should be the channels of communication in dealing with the War Service Committees of industry. By the use of the Army and Navy Munitions Board as a balancing, analyzing and coordinating agency the requirements of the Army and the Navy could be weighed and presented to industry in a comprehensive and noncompetitive form. Competitive bidding by either service would thus be obviated.

5. In view of the many uncertainties on M day and of the fact that too detailed initial control may slow up progress, it is believed better to allow the priorities of procurement programs to automatically insure supply of raw materials and commodities during all of the transition period, (probably three months). The transition plan contemplates this measure; in fact, this priority control, in conjunction with the conservation of existing stocks and the stimulation of imports and domestic production, is the basis of the plan here presented.

6. The Commodity Committees of the Army and Navy Munitions Board, having established contact with the trade associations of the respective industries, would inaugurate negotiations toward trade agreements which would secure control of the procurement and distribution of stocks of raw materials and controlled commodities, and stimulate imports and domestic production. The period up to the establishment of the superagencies should be utilized in developing the detailed control measures to be applied later by the superagencies. Several studies are in the files covering such detailed control methods. Generally speaking such a plan would have to be based on some sort of ration method using warrants or permits for the use of the raw materials and commodities needed in the procurement program. It is believed that, in this detailed control of strategic materials, different methods are quite likely to be used for different strategic materials; for example, it is possible to conceive that the manganese ore required by the steel industry would be distributed by the Iron and Steel Institute under control policies established by the Government. In the case of nickel the International Nickel Company, since it controls the whole supply, might well distribute the nickel necessary under control policies established by the Government. On the other hand, it is quite probable that many of the strategic materials will be controlled and distributed in detail by the Administrator of War Industries.

7. In addition to conserving existing stocks, a very important task is that of stimulating imports and domestic production. The enemy we fight will determine the degree that sea trade lanes will be cut off. The program of imports must be developed having regard to these factors. Steps must be taken immediately after M day to stimulate domestic production of needed materials. The necessity of this is at once apparent and therefore this very necessary step will not be enlarged upon here.

8. In all the measures taken in connection with control of materials consideration must be given to the needs of the civilian population. If necessary, the civilian population can and will willingly do without a great deal. It has been stated that the difference in consumption of the American people in a depression year as compared with the consumption of the people in a good times year, is greater than one year's cost of our part in the "World War."

In closing this talk I want to refer to the Army and Navy Munitions Board. This Board is uncertain in character; it has no legal mandate - no executive order, but it is included in the Industrial Mobilization Plan with the seals of the Secretaries of Navy and War approving it. As written in the Industrial Mobilization Plan, its activities relate almost entirely to planning. On the other hand, if you look at the organization diagram you get the idea that it is intended to be the emergency coordinating agency between the Army and Navy. I do not know where it is going but I know where it ought to go. If the higher officers of the Army and Navy cannot have a little spirit of compromise in running the next war we will break down. On the other hand, if they will work together, the Army and Navy Munitions Board can form the framework of the first coordinating agency, and in the degree that they do their work well the less necessary will other superagencies be. Major Kilner's committee had the idea that by putting all joint agencies under the Joint Board this would destroy this concept of ours of having the Army and Navy Munitions Board operate as a coordinating agency of procurement of the Army and Navy.

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Q. Would you mind amplifying the functions, personnel, etc. of these commodity committees and war service committees? We have them in the Army, the Navy, the Army & Navy Munitions Board, and in the superagencies. How much duplication of effort and personnel is involved there?

A. The Navy does not have the organization we have. The Army, O.A.S.W., does provide for war service committees. The Army and Navy Munitions Board provides for war service committees. The Administrator of War Industries also has them but as the higher organization comes in the lower organization drops them. For example, if the Army and Navy Munitions Board can function there will be no need for The Assistant Secretary of War to have these committees. On the other hand, if they cannot perform this function the O.A.S.W. would.

Q. I do not get the point of your objection in having the Munitions Board under the Joint Board.

A. It violates every command channel principle that you line people are so fond of citing. You would have The Assistant Secretary of War charged by law with the supervision of current procurement serving under a board which is dominated by the Chiefs of Staff of the Army and of the Navy.

Q. Do you think that the present priorities are sufficient to bring about the proper distribution of strategic materials at the outbreak of war?

A. There are plenty of raw materials to take care of both the Army and Navy but you must remember that priorities will change with the nation we are fighting. I believe that for three months we could run on the priority basis you mention without dissipating our reserves.

Q. To what extent to your plans go to get Congress to build up a reserve of non-perishable strategic materials?

A. We have made studies by direction of The Assistant Secretary of War and submitted a paper to the War Department covering specific recommendations as to what should be done. That paper is now, I think, in the War Department. Whether it has been approved or not I do not know. That was two months ago. I think it might be said that we are doing all circumstances will permit toward bringing to the attention of the powers that be the need of a reserve of strategic materials.