MONETARY AND CREDIT REHABILITATION FOLLOWING NUCLEAR ATTACK

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Dr. Roland I. Robinson, Adviser, Division of Research and Statistics, Board of Governors, Federal Reserve System, was born in Pellston, Michigan, 24 August 1907. He received his Ph. D. degree from the University of Michigan in 1937. His professional career includes instructor, University of Michigan, 1929-34; Federal Reserve Board, 1934-46; appointed professor of banking, Northwestern University in 1947, and subsequently became chairman of the Banking and Finance Department of the University. In addition to his other duties he has been a consultant on public debt management for the U. S. Treasury Department and lecturer in the Central States School of Banking. He is a member of the American Economic Association; American Finance Association (president, 1953). During 1955-56 he was on leave with the National Bureau of Economic Research. He is the author of "Management of Bank Funds" and "Financial Institution" (with Irwin), 1953, as well as numerous articles in banking journals. This is his third lecture at the Industrial College.

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MR. PULVER: General Mundy, Gentlemen: Last Tuesday Mr. Phelps discussed with us the measures to meet the economic consequences of nuclear attack. If you will recall, he stressed that the success of any such measures would depend first on the continuity of a sound monetary and credit system, for this is the foundation upon which other economic measures rest.

To explore this matter further, we have with us this morning the foremost authority in this field of planning, Dr. Roland I. Robinson of the Federal Reserve System. He will discuss with us "Monetary and Credit Rehabilitation Following Nuclear Attack."

Also present here this morning are three gentlemen who work with Dr. Robinson on these problems. They will be the panelists of the Section F seminar this afternoon.

Gentlemen, will you please stand and be recognized as I call your names.

Mr. R. Duane Saunders, Treasury Department.

Dr. Hans Adler, Bureau of the Budget.

Mr. Gordon Grimwood, Federal Reserve System. He is currently assigned to the National Damage Assessment Center.

Now, Dr. Robinson, it gives me great pleasure to welcome you back to the College for your third lecture and to introduce you to the Class of 1960. Gentlemen, Dr. Robinson.

DR. ROBINSON: The starting point for this discussion is the assumption that the United States might be attacked by weapons of heavy weight, that the damage to the civilian economy would be of vast proportions, our economic system would suffer losses ranging from light damage to complete destruction.

Before we even talk about the problem of monetary and financial rehabilitation, we must consider the assumption of very great and severe damage to the existing system.

We have to work with a problem for which there is no precedent, we can apply only imagination to a situation about which we have no experience. Unfortunately, imagination without some sort of foundation in empirical study may be a very slippery sort of tool to use in analysis.

I start with the hypothesis that we live in a society in which we are disciplined primarily to make our own way within an economic order. We are partly subject to the discipline of jobs, but the measure of freedom in our economic system is such that the final control of our activities is found in the way in which the market system responds.

This is something that would last after an attack. We are not accustomed to responding to the discipline of governmental order or accustomed to responding to a discipline of a totalitarian system. So that, having enjoyed freedom, even a cataclysmic attack cannot change the fact that our human responses are those of a free people.

Secondly, we are disciplined to believe and, in general, to seek the solutions of our problems locally. We do not have national policies on a great many of our important day-to-day operating affairs. We have one of the few political systems in which there is divided sovereignty, so that local solutions to a great many problems are important and central in our lives.

These facts, I believe, are important beginning points that we must bear in mind, because the sort of solutions you may make for monetary and financial problems in our society might not be the same ones that you would make in another society that has neither enjoyed freedom nor has learned to solve its problem on a local basis.

Let me turn directly to the monetary and financial problems that would be faced in the event of a nuclear attack. What sort of circumstances would we encounter? In the first place, the loss of the basic power to produce and the basic economic patterns to which we have become accustomed means that there would be, quite naturally, a very large loss to all of the values that we associate with our financial system--the pieces of paper, the credit instruments, the interrelationships that we treat rather casually and accept as given in our system are based on the assumption of solvency of a great share of the economic system. We accept checks freely, use them all the time. We buy securities. We depend upon informal systems of credit such as open-book credit. All these depend, I repeat, on the assumption of general solvency. There are occasional exceptions, but the exceptions are so trivial as to be unimportant. The important part is that we depend on the assumption of solvency.

In the case of a nuclear attack on the United States, the loss of value of a very large part of our economic units would be so great that, without other countering action, we would have to assume the insolvency of large numbers of economic units. If we assume insolvency of a large number of these electronic units, then insolvency automatically leads to the fact that all of the pieces of paper that we customarily depend on for the workings of our system don't have the foundation that we normally expect for them.

We depend very much, not only on these pieces of paper in transacting business but on the fact that there is an interrelationship between the discipline of free markets and other economic activities. Those of you who have contemplated the relatively considerable inconvenience caused by the very inconsiderable strike of butchers in the city of Washington can see how dependent we are sometimes on a very few cogs in this economic machine.

By the same token, financial institutions and financial arrangements are tied together. The workability of one set of financial institutions depends on solvency of others. Let me illustrate this principle by a simple illustration. Suppose we should insure the deposits of only banks. We would guarantee banks as a central financial institution, and we would try to prop up our system by this means. We might find that we would still encounter very considerable financial difficulties, because other financial institutions such as insurance or factoring firms might be vital to many business operations.

Let me turn still further to some of the economic problems that would be more specifically encountered in the event of a nuclear attack on the United States. The economists' fancy phrase for this is that we would have a disparate loss of resources. This means simply that we would have very heavy losses of some types of economic resources and rather light losses of others. An enemy attack would almost certainly deprive us of a very large proportion of our resources for making critical metals, such as steel, and very likely, in the nonferrous metals but, on the other hand, our capacity to produce agricultural products, already excessive, would be rendered remarkably redundant by an attack.

Another economic characteristic of a postattack economy would be that work incentives would be drastically changed. At present the paycheck keeps us all going to work. But the fact that the paycheck keeps us going to work is only because the paycheck ultimately, in one way or another, is transferable into the things that we want. If we should be in circumstances in which the paycheck failed very long to accomplish what we normally expect of it, we would quickly lose one of the most important incentives of what we might call the discipline of the economic order.

What is to be done about all of these circumstances? With very great and disparate loss of economic resources, with economic disciplines losing some of their effectiveness or potential effectiveness, with the whole social order itself subject to a certain amount of disintegration because of the massive and almost unimaginable horror that accompanies it, we would have to patch together and improvise with such resources as remained. The proper place to focus when you are talking about recovery from attack is not on the areas of devastation or losses but on what survives and what is not lost and what you have to recover your economy. Mechanisms or means that will reunite these resources most effectively, most quickly, and will produce the end result that we are after must be found.

Because of the fact that we are accustomed to freedom we would have to allow for the fact that one valuable resource that would survive would be the will of some people who would if they had the right incentives, act locally to reassemble such resources as survive, to patch together, to improvise, and to do what would be required to restore activity. In my opinion this is something that cannot be done by central governmental planning. We have to expect that, whether it be the figure of the businessman or the figure of the local city manager, there will be all sorts of local arrangements that will solve problems that cannot be "bucked up" to the central authorities.

Secondly, in doing this, we will have to patch together a quite different mix of resources than we had to do before. We will find some things in great excess. It is conceivable that there would be widespread areas of very great labor abundance in a postattack situation. Even though we would need desperately to have the maximum of production, we might have unemployment of manpower. We might have some types of industrial facilities that survived in relatively good order. For example, it is conceivable that cement production, because of its peculiar characteristics of location and its dependency on natural resources, might survive and we might have a lot more cement-making capacity than we knew exactly how to use.

We would have to learn how to improvise with it. We have to learn to do with cement what we used to do with steel.

Where does money come into all of this? I think that it is extraordinarily important that the incentives that we normally depend on be kept alive. If we emphasize the importance of keeping a viable, working monetary and financial system, it isn't because of a proprietary or parochial interest in this particular system but because it supplies, and would continue to supply, the one type of incentive that we might be able to keep viable. I believe that, if that system were lost, we would find it very hard to replace it quickly with another. The fact that the paycheck brings some rewards, the fact that a money system has many advantages; it is something that we would need to maintain.

To restore solvency to the financial and monetary system, the Nation would need to have plans for doing the job quickly. This isn't something for which we could wait two or three years, or which we would give only a priority B status. If solvency is once lost, it may be lost forever. This requirement I want to emphasize: restoration of solvency must be done quickly, and at the very beginning, because that is the period that is critical in the restoration of monetary and financial viability within our system.

How might it be done? There are varying devices, whether you call them "loss sharing," "indemnification," or "war risk insurance." There are different words for some system that would in effect put the power of government behind the assurance not just of solvency or viability of the financial monetary system but of, in effect, largely the economy as a whole. Government would have to stand in lieu of some of the guarantees that we normally would much prefer to depend on within our private system, and that keeps it going. This is, I believe the only workable solution.

Questions may be asked as to whether loss sharing or indemnification should be a pattern which is reasonably explicit in its character and in its preattack planning, or whether it should be something to be left for decision afterward. One can also ask whether indemnification should be largely universal and complete, or whether it should be limited to the minimum degree essential to restore solvency.

When we think about loss sharing and indemnification, our first impulse is to think about this as a measure of equity and fairness. We would all be in this kettle of fish together, and we would divide up losses. But because of the fact that there would be many kinds of losses that unquestionably are very great and very severe, if we attempted indemnification of them, it is conceivable that we would dilute the system and make it impossible. Let me mention what I think is by all odds the most important of these types of losses.

Loss of health or of ability to make a living by some partial injury or casualty would be a loss by an attack that people might think should be shared, by welfare measures. We might say, "Let's assure income." It is conceivable that that should be done; but, if you calculate the cost of casualties in the event of nuclear attack, you will discover that our resources might conceivably be exhausted in simply meeting that one demand. As cruel and as inhuman as the thought may be, it is conceivable that the ultimate welfare of our country and the ultimate welfare of even afflicted individuals might be better served if the power of government were used purely and coolly to restore economic solvency and if we did not try to indemnify for losses of health and ability to earn a living.

Now let me push a little further some of the specifics that have to do with the financial and monetary system and with the way that indemnification might have to work. Indemnification or loss sharing could be applied at different levels. Should you indemnify those who have losses in terms of paper claims or should you indemnify only real asset losses? Our system of money and banking, is one in which paper claims are piled on top of paper claims. There are multiple layers of paper claims. When we hold a life insurance policy we have a kind of paper asset on the life insurance company, and the life insurance company in turn buys pieces of paper that we sometimes call bonds, sometimes mortages. Those pieces of paper may have as security real property, but it is conceivable that they in turn, at least in the case of bonds, may have an intervening layer depending on another piece of paper. So that if you set out to indemnify paper claims, the result is the fact that you have to offset paper claims before you arrive at true losses. When you indemnify the indemnifier becomes logically and in the equity of law the holder in due course of all of the equitable rights of the holder of the original piece of paper.

It is conceivable that the wiser policy would be to make no effort at all to indemnify holders of paper claims and indemnify only for real asset losses--buildings, structures, machinery, the real economic assets of our economic system. If you indemnify for the real assets, you will automatically make solvent and viable the paper claims of our economic system.

As is probably apparent in the way I say it, my own prejudices on this point are clear. I think it is more workable to indemnify at the level of the real assets and not try to indemnify on the basis of paper claims. But I would like to be the first to admit that those who hold the contrary view can make a very good case for the opposite side; i.e., that indemnification should be at a quite different level in our system and that possibly we should, by a system of offsets, cancel out interlocking claims.

I want to bring out one more extraordinarily important issue. A reasonable system by which we restored our monetary and financial system might trigger a very serious inflationary problem afterward. The stability of prices and values in our economy depends on a reasonable balance between real assets and paper claims--money and the other forms of near money. In a postattack situation we cannot hide, and should not attempt to hide, the fact that we would be very much poorer. The loss of real assets is real. If we restore the financial and monetary system to complete viability we would have more paper claims than real assets. If this ratio were a serious imbalance, we might, while we had escaped the danger of stalling the economy by having revived our system, build up a perfect machine for setting in motion and accelerating inflation. An accelerating inflation is almost as good a way to destroy monetary incentives as complete demoralization and decay of the financial system. How to do it in balance is, I believe, an unsolved problem--how to keep goods and money in balance.

Let me mention one more problem that I believe to be an unsolved problem. Whatever sort of restoration of the financial and monetary system we might have, would of necessity, have to allow for the fact that there would be very large measures of activity that would have to be transferred to the hands of Government, kinds of activity that are normally in private hands.

Under those circumstances we would have large Government deficits, which, for a variety of fiscal reasons would create a serious inflationary potential. The only way of avoiding those deficits would be by adding new taxes, or forcing savings from the economy, so as to take the funds away as fast as they are created. This is an issue of magnitudes. In principle, this is something that could be done, but the quantities required would be massive and far beyond the quantities that we have ever seen. It is very possible that such taxes or systems of forced saving might reduce or weaken economic incentives to the point where we would have difficulty in maintaining viability and unity in our economic system. I consider that a very serious and unsolved problem.

Let me turn to some of the other specifics. These are more nearly housekeeping problems, but they are problems of a very real and important sort. In general, in the planning for financial and monetary rehabilitation, considerable emphasis has been placed on the restoration of the commercial banking system in advance of other portions of the financial system, simply because the commercial banking system does manage our demand-deposit system; and our demand-deposit system is our principal monetary vehicle.

Quite a lot of good sense can be marshalled to support the view that you should give priority to the reestablishment of the commercial banking system in advance of other financial institutions. But, if you press this policy too far, you might find that you would run the risk of seriously undermining other financial institutions. Financial institutions depend to a considerable extent on beliefs and convictions of solvency, and, if we should damage, or mar, or in some way jeopardize these convictions of solvency and of viability, it would be a harder job if delayed.

One type of financial institution would present particularly difficult problems: the life insurance industry. Life insurance is a very important financial institution. It is important because it is pervasive as well as large. A very large proportion of our responsible adult population in some way or other is a creditor of the life insurance system, and some, like myself, debtors. The viability of the life insurance system would be threatened by the fact that, even with certain limitations on their contracts as they are now written, there would almost unquestionably be a complete insolvency of all life insurance companies with the claims on them, because the death benefits would exceed their ability to meet them. Almost any arithmetic you apply means that in this industry even a restoration of solvency of real physical assets would not solve this problem. If the life insurance industry could be restored soon after an attack, people probably wouldn't lose confidence in or destroy the functioning of the life insurance industry. But, if the life insurance industry were kept frozen for a matter of months--maybe only weeks--in a period after attack while we were waiting to do what everyone believed to be a somewhat more important thing, it is conceivable that when it dawned on people that this industry was insolvent, even with indemnification, public confidence would be eroded to the point where restoration would be very difficult and maybe impossible.

Let me mention a few other specifics on the matter of monetary and financial rehabilitation. Our commercial banking system is primarily thought of as a monetary system and as a supplier of demand deposits, but in practice it also is the holder of quite a lot of savings, or time deposit accounts. As holders of time and savings deposits, banks are competitors with a number of other savings institutions, and it would almost definitely be the case that, if there should be a policy of rehabilitating commercial banks, you couldn't rehabilitate them on one side and in one department and not rehabilitate them generally. If you do that you give them a competitive advantage over other financial institutions. In our system of affairs that would be immediately viewed as a quite inequitable and unfair arrangement. So I find it hard to see how, even under the great and agonizing difficulties of a postnuclear-attack economy, we could altogether delay restoration of other types of financial institutions.

Let me turn to another problem. This has to do with currency. It is a very simple housekeeping problem, or so you might think when you start worrying about it. Currency is the small change of our economy. These coins and this green printed paper that are produced in a factory over here in Washington, amount to about one-fifth of our monetary system. We use them basically for convenience. Sometimes we use them for the types of transactions that are too trivial to use the more high-powered mechanics of the demand-deposit system. But, for a variety of reasons a great many people some way have greater confidence in currency than they do in bank deposits.

Those of you who have any recollection of experience a few decades ago can supply a few reasons why it is that currency has its special forms of partisans and advocates. But it is almost certainly true that in a postattack economy there would be some people with very human and understandable, but deplorable, taste who would prefer to make their monetary arrangements in the form of currency. If this practice should be encouraged, we simply wouldn't have the mechanical means for making it function. I, for one, don't see how it could be provided. As a matter of fact, I think there will be serious difficulties in establishing a mechanical system simply to meet our normal needs. Most of us are unaware of the fact that, to have enough nickels and dimes, and so on and so forth, available at the right time, to have green printed paper in the teller's cage on the weekends when we'd like to take out a little extra currency, and to have somebody to take it back when we are through with it, requires a surprising complex, sensitively organized system of physical, mechanical distribution.

If, for some reason or other, our system of currency conversion of demand deposits should break down, we'd face a problem of confidence as well as of mechanics. Various plans for maintenance of reserve stocks of currency, so-called agent bank systems, and varying devices are being studied. Recent legislation which allows the counting of vault cash as allowed reserves in member banks was partly justified, by virtue of the fact that it gave an added incentive for dispersed holding of currency by the types of institutions that might be somewhat more protected from a nuclear attack. You will notice that the very first action of the Board in allowing vault cash to be counted was of amounts over fixed percentages, which tend to be concentrated in outlying banks.

The concentration of currency that can be used to meet required reserves is probably in those banks that would be least likely lost or damaged by a nuclear attack.

In the few minutes that remain, let me say a few more things about the general philosophy of monetary rehabilitation. The United States has a system of discretionary monetary policy, operated by a Federal Reserve System. The System has a large element of regionalism, which is explained by the political resolution of the System's initial character. It was to avoid concentration of too much power in the central government that there was originally provided an organization of reserve banks in various regions in the country. However, while there has been a high degree of regionalization of all the operating and housekeeping functions of the Federal Reserve System, there has been an increasing degree of centralization of the policy aspects of monetary control. Monetary control is now to a considerable extent centralized.

This is not to minimize the contribution of the Reserve banks in the formulation of monetary policy. The major instrument through which they contribute to this is the so-called Federal Open Market Committee.

A discretionary monetary system might be a particularly difficult one to reestablish in a postattack situation. If we should have large losses of policy personnel, and if we should have a sharp severing of the ordinary instruments of communication, it is conceivable that there would have to be a greater degree of local autonomy in military matters than might be expected. Let me illustrate by a very simple and interesting little episode in one of the Operation Alerts. In the simulated atmosphere of this Operation Alert it was assumed that the central authority of monetary policy formation had been temporarily destroyed and not completely reestablished. Communications were received from two Reserve banks, of the following actions: One Reserve bank immediately dropped its discount rate to zero, and another bank raised its discount rate. In other words, the dependence on a discretionary monetary authority, a defensible plan for a peacetime system, raises some very real problems in an economy seriously damaged by attack.

Now, what has to be done there? Within the Federal Reserve System, an effort is being made to work out a solution. Mr. Grimwood and myself are now trying to establish a system by which there could be maintained, until we could reestablish an operating and viable authority, a system by which the various members or fragments would initially take no steps which would commit them to policies that would later on be awkward or from which retreat would be difficult--in other words, a holding action, so that there would be the advantage of a discretionary monetary authority when reestablished, but without the dangers of disparate action until that time.

One more point: We have encountered in our planning in the Federal Reserve System the fact that there is a very considerable amount of inertia in any type of planning of this sort. It is difficult for people to bring themselves to the stage of really taking this very seriously. It tends to get shoved back of other jobs in terms of priority. I have to confess that I, myself, am guilty of this sort of priority judgment on many occasions, and find myself impatient with having to devote time to something that is not "productive." It doesn't seem to lead any place. Of course we hope it isn't productive. Nevertheless, is there any point in it?

The one advantage of some type of planning seems to me to be as follows: I don't know what would deter our enemy from attacking us. I suspect that you know rather better than I. But I am convinced of one thing: As a nation we have to make clear our will to survive even if we are attacked by nuclear weapons. We have to make clear that we not only intend to survive but that we have the mechanisms and the plans and the arrangements by which we can survive as a nation. It is only if one holds that conviction that this whole venture is worthwhile. If it is worthwhile, it is an expression of our national will to survive. No matter how great the damage done us.

Thank you, gentlemen.

MR. PULVER: Gentlemen, Dr. Robinson is ready for questions.

QUESTION: In a situation such as you describe, I think we are all agreed that money, such as paper, would tend to lose its value. You pointed out, I think, very well that we have got to have some motivation to create this confidence so that money would have a value as a symbol of worth. The average person who would face this situation is not interested in the stockpiling of steel, strategic materials, and so on and so forth. He is interested in something more fundamental, such as food, shelter, and even water which is not contaminated. Are we stockpiling any of this sort of thing that could be available on, say, a local or a regional basis, and which would provide this motivation for the average person so that he would want to work and go and get some of these things? I know that people are not stockpiling them in their own shelters. We don't have the shelters. What are we doing on this basis, to provide the background and the motivation for people to use money?

DR. ROBINSON: My answer there would have to be that all the arrangements--and I am sure there are people here in the room who are much better informed than myself about the degree of them--for such things as medical supplies and certain minimal requirements in the case of disaster, have been in the hands of very largely Civil Defense or other related authorities, so they are in governmental hands. Strictly speaking, that lies outside the market economy. To the best of my knowledge, no provision has been made for distribution of these things by the sales process. I think the practical effect is this: Unless we went in for a very massive governmental program of stockpiling and all these arrangements, the quantities that would be available through these means simply would not be adequate. The point that I would want to make is that what we have to do isn't so much to depend on these completely preplanned arrangements, although we need these too. I think we have to, after an attack, start marshalling the surviving resources and directing them to where we need them. I still see no alternative to a market economy to do this. We are, as a nation, acclimated to the use of it. We know how to function there. We tend to kick over the traces and the results of price control and rationing during the war show the extent to which we do not accept the discipline of direct controls readily. We kick over the traces. So that is the reason I believe that we have to depend on a market economy to provide many of the still essential requirements.

QUESTION: In view of the great loss of assets in this country, our own money would certainly lose value in many people's minds, as to what is in back of it. At the same time, countries in South America and possibly Mexico, and some others, would not be hurt, and their moneys would be more valuable and have more behind them than our own. The situation would be similar to some of the early days of our own country. Is there any consideration or thought of trying to have in effect a reverse foreign-aid program, or lend-lease, but to use the currency of some foreign country which is still fully solvent?

DR. ROBINSON: You mean for our internal affairs?

STUDENT: Yes, for us to import it as a means of exchange--coins or something.

DR. ROBINSON: This brings me back to the days when I was a money and banking teacher. Many people don't realize that for the first 30 or 40 years of this country we did depend on foreign sources of currency and money altogether. The original provisions for coin and currency in the United States really weren't very effective until about 1853, as I remember, when we finally got a Subsidiary Coinage Act that worked. Up to that time the English shilling was legal tender, even for taxes, until 1834, if I remember correctly. In any event, we have depended on foreign currency before, so that this is not unknown.

I believe in practice, however, that this would not function very well. There are two bases for it. Originally we could get along on this basis because the people who were citizens of the United States, many of them, who came here, had used English coins, so they could continue to, and the Spanish dollar, which gave the name to our own dollar, was circulated informally. We knew how to do it. But we are accustomed to our own money system, and I think that all the resources used in getting it here would be a lot more nuisance than working out our own.

I might add, incidently, that I believe it would be bad psychology. I haven't thought this through, but I think that would be bad psychology. We'd still want to use our own dollar and make it a good symbol.

QUESTION: I understand that at least one of the States has made plans to use scrip in a postnuclear-attack period. This isn't prone to create confidence in our currency or stability, or anything like that. Do you have anything to say on this?

DR. ROBINSON: I certainly do. I think it is regrettable. I am aware of at least one State. Whether we are thinking of the same State, I don't know.

STUDENT: I am thinking of New York, I believe.

DR. ROBINSON: Yes, that's right. I think that the use of scrip would be particularly regrettable for an added reason apart from the fact. We can't do business just on State lines. We are a United States. Our business is United States business. We can hardly eat breakfast without going across State lines. The grapefruit that we eat comes from one section of the country, and our cereal from another, and I'll bet you'd be surprised at how far away we get eggs from. So that a monetary system for a single State just won't work. I think in that sense that it is bad planning and it is regrettable, and we might better put our emphasis on having a good United States money system.

If I could use this as a point of departure on another point that is related to it, I think there is a danger, a related danger, that, in the event of an attack on the United States, it is clearly true that some areas would be much harder hit than others. We fought a War Between the States here now almost a century ago on this business of severing our States, and we decided to stick it out together. I think, under the influence of nuclear attack, that those States that survive relatively undamaged might be tempted to secede. This would unquestionably itself provide enough added economic problems to those that would already prevail, and then I think we would have a real disaster. In other words, I think that anything that encourages regionalism or secession would be damaging and corrosive and very unfortunate.

QUESTION: To come back to the money again, I agree with your thinking about the great American desire to go it alone and how probably this would be the best thing after a war and to exploit that. But in many ways this great desire to go it alone shows up in individual entrepreneurs that are slightly illegal. I would be inclined to think that money, in the very large vaults that lie around full of it, would be a prime target for groups of entrepreneurs. Even the smallest tornado I notice calls out a little bit of martial law in the States. Do you think we can live with the present monety or do we have to reprint it and start a new color, or something of the sort?

DR. ROBINSON: The technique by which you reissue money or not is an interesting one. I think that subsequently it might be desirable to reissue the currency. Nevertheless, I don't think we can do that initially. This is not the initial act. It is conceivable that you can make a proposal that we should have reserve stocks of a different type of currency which does not now have any validity and which would be stored about, and all of a sudden we would demonitize one section, and you could exchange it but you couldn't use it directly, and then we would have a new type of currency, and all that. You could make a pretty good case for that. On the other hand, with the disposition of Congress to appropriate funds for this rather costly procedure, we can ask Duane Saunders whether he thinks he can get a chance to pay the tariff on that or not.

MR. SAUNDERS: No.

DR. ROBINSON: He has answered the question, no.

QUESTION: I don't want to harp on this subject too much, but another thought in this particular vein is that the country which would resort to using a nuclear weapon against us would surely not hesitate to flood our markets with counterfeit money. And having a source of scrip or reserve money available might be a pretty smart thing to do.

DR. ROBINSON: Well you can make a good case on that. I might add, though, that the counterfeiting of a new currency might be easier than the counterfeiting of the old one. This is a very interesting point. Those of you who have dealt with cloak-and-dagger matters might answer this question. Could you keep the design of a new substitute currency absolutely secret so that it would not be available to the enemy? The point I am making is that if it was unfamiliar currency, and it was counterfeited, actually it would be easier to pass the counterfeited new currency than it would the counterfeited old one. We have a lot of people around that would not get fooled. Did you ever have any counterfeit in your hand of our own currency? It is not hard to detect. We instinctively acquire a sense of it. The first time you get the thing, the paper doesn't feel right, and the inking doesn't look right. On the other hand, if you do it with a brand new currency I think it would be easier to counterfeit it. I have a grave suspicion that intelligence cloak and dagger activities being what they are, they could get the design of a new currency

QUESTION: That brings me down to the point of whether we have any other source of paper that we use to make our paper. I understand it is a very closely guarded spot. Do we have any other sources for it? I realize that it is on the paper that these counterfeit people get tripped up. It is not the plates. They have some pretty good plates.

DR. ROBINSON: Can you answer, Duane? I don't know.

MR. SAUNDERS: They could go, conceivably, to an alternate paper source if it was essential. But there are no plans along that line at the present time. There is a bit more than the paper involved. I have never seen an engraving that really matched the true engraving.

STUDENT: Do they have sets of plates stored away some place so they could use the same old plates?

MR. SAUNDERS: I don't think I had better answer that.

QUESTION: Sir, on this problem of indemnification, how do you envisage this would work? Would the Government loan or grant funds? In answering that, would you clarify the problem with respect to the worth of securities and the worth of real capital and its significance, in view of the fact that most of this is founded on people and organizations?

In other words, a bank has a loan against an individual. This person can perform certain services which in the end will repay that note to that bank. Then the loss of this person's life changes our whole concept of the value of all this paper and this capital.

DR. ROBINSON: During the break Mr. Saunders told me that he thought I had gone a little far already in spelling out indemnification or exposing my own private prejudices on what sort of system of indemnification we might have. So I hesitate to answer your question very explicity unless I preface it by saying that the issue as far as governmental policy is concerned is that I think there is governmental policy that there will be some form of loss sharing or indemnification, to the extent possible. I think that can be taken. The way in which it would be developed is subject to dispute. I hoped to make that clear earlier, that there are varying ways. I will only repeat that I think the way you can do it most conveniently is to go back to the real loss foundation, and do not indemnify on paper claims at all, but, if a person suffers real loss--that is brick, mortar, machines, and property of that sort--that the indemnification be attached to a real asset, because then you avoid all the problems based on paper by which the indemnifier becomes the holder in due course of an equitable claim against the next tier. You see, you have to follow it back to the beginning. So, to keep the administration of indemnification or loss sharing out of this, I believe you have to do it. Now, the degree to which you do it is an issue of national policy which is definitely unsettled. That's not a very satisfactory answer, I realize.

QUESTION: Dr. Robinson, it seems to me that an important source of help after a nuclear attack would be from foreign countries, probably some that haven't been bombed. They have considerable foreign credits in this country. Do we propose to indemnify them? How do we do it?

DR. ROBINSON: There is a specific on that. Well, Mr. Saunders can check me on it, but I think that this becomes an issue on which we have a clear policy. Assets in this country of our enemies we freeze. Assets in this country of our friends and allies we treat in exactly the same way that we do our own. The point is that the more important thing isn't so much these paper assets that they have, but we want to do business with them. We want to import from them. We don't want to freeze up our economic relationships, because these undamaged countries undoubtedly would be an important source. The important thing has to do with the paper claims again. We want real things, really important things from them. In order to have trade with them we have to respect their claims on us. On that point I think there is settled national policy that, for our friends and allies, we would treat their claims exactly as our own. For example, if we should freeze bank deposits above a million dollars, which is a conceivable thing on a partial system of indemnification, we would freeze their units above a million. They might get caught. But, if it is an equitable rule, everybody gets hit by the same rule. We would be scrupulous with our allies or friendly nations with which we want to do business. That would be to our own self-interest.

QUESTION: Assuming that some of our people who now sign checks for disbursement of Government funds are hit in this attack, what plans are there to substitute for those people so that that part of the Government's business could continue?

DR. ROBINSON: I think that most Government departments have established lines of succession so that all essential functions are delegated or covered. I can't answer for all agencies. In the Federal Reserve we have a system of succession. We can be cut away down and still have people that would then have self-triggered authority to carry on every function. Is that right, Gordon? The succession goes so deep in our plan that I think the probabilities of, say, two-thirds of the population leaves us technically able to function. That part I think is solved. There is no problem.

I assume other Government departments have succession long range and quite deep. Treasury I know does. And I think other Government departments do. I don't think that is a real problem.

QUESTION: Sir, I am thinking back to 1945 when in Manila funny money flew around the streets. Did we get some lessons from what happened to, say, a country like the Philippines where the Japs took it over and we took it back, and there was all this accompanying destruction? Has this been studied to see what happens?

DR. ROBINSON: There has been quite a bit of attention paid to areas of great destruction, though I must confess that I don't remember that the Philippines case came into our consideration. We did look at the German economy, at the Japanese economy under the damage to Tokyo, and at the British economy. We went into a number of examples. I might add, by the way, we were interested in the economies where there were responsible sovereign governments. The only difficulty about the analogy of early experience is this: The damage came bit by bit, so that there was an interval in between in which there was some measure of reconstruction. To tell the truth, that is quite a different situation from when you have the damage so concentrated that it is a single, traumatic, enormous blow, or so concentrated in time that you can consider it so, where there may be two or three waves of missiles, but to all intents and purposes in human experience it's one blow.

QUESTION: Sir, I suspect that maybe the per capita wealth of the country would not change very much after a nuclear exchange. If we lost enough people we would have the loss of wealth pretty much equalized. Has there been anything looked into or explored in this area?

DR. ROBINSON: Yes.

STUDENT: I have a second part to it. Suppose we deflated by the margin the differential that would exist. What would be so bad about it?

DR. ROBINSON: Let me take your first question, because it is an interesting one. It is one on which, as a matter of fact, I, myself, did some work. It is quite true that in the attack patterns assumed for Operation Alert 1957 and 1958--1958 was carried over--you could estimate roughly that the survival of population was about parallel to the survival of real wealth at preattack market values. But the difficulty involved is this: This is this matter of disparate resources I talked about a while ago. There are a lot of things that had value preattack, but it depends on the going-concern value. Our Nation is wealthy not just because we, individually, have things, but because we are a part of an economy that functions. The value of a business isn't just something that you can throw a fence around and that value is there. It is because of the fact that it in turn can do business with the rest of the economy. So, when you knock out critical or bottleneck areas, other sectors of the economy lose value. So that, actually, even in a physical-asset sense, there is a great or possibly slightly greater survival of wealth at preattack market value than there is population. So that your basic point is right. In the immediate postattack period, because of loss of viability, that is not so. In other words, the loss of productive capacity is greater than the loss of population. So there would be a very real and material drop in the standard of living which would take some period of time to restore, no matter what system you used.

Let me tell you the significance of your point. The significance of your point is that it doesn't help very much in your short-term restoration but it does help in your long-term plans to pay for indemnification, because it is quite right that, if you have an estate or wealth or capital levy type of tax, basically on the wealth of those who did not survive, ultimately the financing of the process can be done by virtue of this very important critical fact. But it doesn't help you in the short run. Do I make my point clear?

STUDENT: Yes, Sir.

DR. ROBINSON: You had a second question.

STUDENT: I figure it follows more along this indemnification. You can indemnify by deflating the dollar. You would have to control there, I recognize.

DR. ROBINSON: This process of proportioned deflation might have much merit, and in some ways I think it is the right thing. But let me tell you the disadvantages of it. You don't want to destroy incentives. I don't know exactly how you balance it so that you keep a money economy and keep the monetary incentives and still make it out. This is the business of the Government's own fiscal policy after an attack. You definitely want to tax or have forced savings to the fullest possible extent. You still won't have quite enough deflation. At some stage you do hurt incentives. It's a very hard thing to balance. That is where I think a discretionary authority in effect has to plan after attack. You can state the principle theoretically, but, boy, you have to steer it when you are on the seat.

QUESTION: What is the role of our gold reserves postattack? Suppose the gold reserves were completely destroyed, and then suppose they were not. What is the relationship here with our currency?

DR. ROBINSON: Well, I'll tell you. If the gold reserves survived we could then fill the rotten teeth that might result from nuclear energy or radiation. If they didn't survive then we would have to use something else. This I consider an almost completely trivial issue, except in one small way. Gold has practically no function in our domestic system. Gold is useful, seriously, only as an international monetary reserve. I would regret the loss of the gold, seriously, because I suspect that the regard that primitive nations have for gold would survive even a nuclear disaster. So, in the sense that we can depend on a myth and on the primitive regard for the precious metals, we would be able to get something in trade for gold, something which we would need desperately in a postattack economy. So I would regret the loss of the gold on that score. But domestically it has no significance, except for the filling of rotten teeth.

QUESTION: What is the effect of the mechanization of our banks in our clearing operation, everybody being identified by number, and so forth? What effect is it going to have, actually, with the philosophy of the money and the ability to change the check-clearing system after attack?

DR. ROBINSON: That's a good peacetime question. That might have a fine monetary effect in peacetime. If you don't mind my making a current peacetime answer, I do think that one of the monetary problems that we face right now is that we are learning--individuals in business are learning--to manage cash balances quite a lot better than they have in the past, and the varying systems are partly the result, as you point out, of various mechanisms of clearance. There are other things--for example, the business of on-the-spot deposit of receipts. The truck drivers who take out cars, rather than take the drafts home, put them in the mail right where they deliver the cars. All these things are so that business gets along on smaller cash balances. The reduced mechanization of the clearing process in a postattack economy would create a mechanical problem which would probably slow down effective velocity. I might add that it indirectly works on the side of the angels, fortunately, in the sense that I think we could restore our money system and not worry quite as much as we normally would because the mechanics of clearing would be so slow and so long. So it helps us.

QUESTION: Sir, if you visualize, say, half the population being killed off--

DR. ROBINSON: I don't visualize it. I take the attack patterns that you fellows have.

STUDENT: Let's say that half do get killed off, and a lot of businesses are bombed out and wrecked. Are there any rules as to who gets that capital investment when things start back again? Or does it go to the Government if there are no survivors left? There will be a lot of real estate left in the United States. Of course I know that you would probably not be able to go into it for a few years, maybe.

DR. ROBINSON: The word we have to pronounce now is a word that has a sinister sound. It is "escheat." The ordinary legal process is that the property of a person who dies without heirs escheats to the State. This is an old, old legal principle. It was used by the transition renaissance English kings because they sometimes saw to it that their wealthy rivals died without issue so their wealth could escheat to the kings. So this has been practiced before. The rules of escheat, however, run into a problem in the United States, because, strictly speaking, escheat goes to the States, not to the Federal Government. That's because the succession of properties administered by State governments escheat the States. This is the time when a constitutional lawyer would come forward and tell us that we had come up against a barrier. But I believe that in the event of a nuclear attack I would direct my constitutional attorney to find me an opinion by which escheat would in effect come to the Federal Government, and we would establish that. You are quite right. This would be a very large capital investment.

I might add that the capital levy I mentioned a minute ago is just as unconstitutional as what I am suggesting here. But things like this have been managed before and can be managed again. There is a problem there, a very interesting one.

QUESTION: I would like to go briefly into one of your concepts which seemed very simple to me until I began thinking about it. Now I am confused again. It is the concept of the quality or value of money and its relationship as an incentive to work. Short of the economy's going completely to a barter economy, which to me is quite inconceivable, money, regardless of whether it is deflated, inflated, or what happens to it, seems to me, still bears its same incentive value. What is the alternative to whatever it is that we use as money as an inducement to work? Will you please tell me?

DR. ROBINSON: You mentioned yourself the only practical alternative, and it is not a very practical one. If we don't have a money economy we have a barter economy. I don't know any other alternative if we are going to do business one with another. I'll admit that there are many kinds of money systems, whether a money system be cigarettes, whether it be gold coin, or whether it be pieces of paper or deposits. There is some form of money system. If we don't have money, we can use goods directly for goods. Those are the only two alternatives. So this exhausts possibilities.

Now, I wouldn't rule out barter quite as fast as you ruled it out. I suspect that in a postnuclear-attack economy there might come back quite a little bit of barter. In almost all circumstances in which you have dislocated populations and drastic and traumatic damage to ordinary economic relationships, people fall back on barter. I might point out that barter has not been unknown in the relationships between nations. In the highly nationalistic 1930's there were barter deals between nations. You still hear about it occasionally, although, in the growth of better international economic relations, most of these barter deals have vanished.

In the domestic economy, I repeat, I think there would be some barter. But that is the heart of the problem. I don't believe that barter could do more than simply fill in some gaps. We have to have some system of money. The only question is: Is it a good one or not?

MR. PULVER: Dr. Robinson, on behalf of all of us here, I want to thank you for so frankly sharing your views on these tremendous problems.

(12 Sep 1960--4, 600)O/mr:dw