

**AMERICAN ECONOMIC POWER: REDEFINING
NATIONAL SECURITY FOR THE 1990'S**

HEARINGS

BEFORE THE

**JOINT ECONOMIC COMMITTEE
CONGRESS OF THE UNITED STATES**

ONE HUNDRED FIRST CONGRESS

FIRST SESSION

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NOVEMBER 9, 15, AND 16, 1989

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AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

THURSDAY, NOVEMBER 9, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 10:11 a.m., in room 2359, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding.

Present: Representative Solarz.

Also present: Richard F Kaufman, general counsel.

OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

Representative SOLARZ. The committee will come to order. The Joint Economic Committee begins today what we hope will be a series of comprehensive hearings designed to examine the requirements of American national security and its linkages to the economy of our country. Future historians may well identify the final decade of the present century as a transitional period between two historic epochs, the former characterized by global conflict and cold war confrontation, the latter by more or less peaceful competition and open cooperation between the superpowers.

What this new age holds in store for us remains to be seen. But I believe it is fair, and not presumptuous, to say that we are on the threshold of a period that may be as different from the bipolar superpolar rivalries since 1945 as the 20th century has been from the Victorian Age. Do you notice that the changes taking place span every aspect of military, social, and economic affairs?

Most Americans, for example, have been obligated to coexist for their entire adult lives with the threat of imminent conflict with a global military power. Earlier in this century, the threat came from Germany and Japan. During the past four decades, the threat has come from the Soviet Union, with the additional risk of nuclear annihilation. Now, the military threat from the Soviet Union may be receding in the wake of efforts by that country to reform itself economically and politically, and to enter the international trading system in the community of nations. Significant progress has been made in arms control and major breakthroughs in the nuclear and conventional arms negotiations may soon occur.

Already, military spending seems to be leveling off, in our country as well as in the U.S.S.R., and both the reduction and restructuring of forces along less threatening lines is in the offing. We all thought we were condemned to live in an interminable cold war,

where the preservation of a fragile and brittle peace would always be in doubt, and under the nuclear cloud. Of course, it would be unrealistic to deny that there is a real threat of Soviet military power that still exists.

The brutal reality of Tiananmen Square was a timely if depressing reminder of Mao's dictum that power comes out of the barrel of a gun, and that in the Communist world those who control the guns may yet turn them against their own people. But we can at least contemplate the possibility that the cold war is a passing phase in history, and the hope that prevailing trends will result in a more peaceful world.

Meanwhile, the nature and the composition of the threat we face is undergoing transformation. In short, it is time for us to give serious consideration to America's national security requirements, conceived in a comprehensive way, as we move toward a post-cold-war period.

What exactly is the nature of the threat to the American way of life? Clearly, economic factors weigh more heavily than they used to, although there has always been an economic factor in the broad definition of national security. The accelerating pace of technological change and the challenge from abroad to our once unquestioned international technological leadership represents two of many developments that require us to devote more attention and perhaps national resources to the economic side of the security equation.

There are many other kinds of change that suggest that the threats to our security interests are increasingly social and economic: our competitiveness problems, the large international financial imbalances, the rise of Japan as an economic superpower, the foreign acquisition of U.S. high tech business firms, the possible emergence of trading blocs, the international traffic in illegal drugs, and the threats to the global environment, to name a few.

All of these developments raise the most serious questions. Is the United States in a state of decline? Is it good enough to just avoid decline? Are we falling behind our competitors qualitatively? What are our real military requirements and what can we do to protect our nonmilitary security interests?

In the hearings being inaugurated today, we will explore whether we need a new definition of national security. Obviously, there are many questions and we do not have all of the answers. That is why we are asking some of the most thoughtful, most insightful, and most experienced individuals in the Nation to share with us their knowledge and wisdom as we go through this exercise.

Next week we will focus more intensely on military requirements after the cold war era, and on the issues of productivity, competitiveness, and globalization. At that time, we will hear from, among others, Assistant Secretary of Defense Henry Rowen, Lawrence Korb, Pat Choate, and Lester Thurow. Further hearings in this series will be scheduled next year.

Our leadoff witness today will be Adm. William Crowe, Jr., the distinguished former Chairman of the Joint Chiefs of Staff. Admiral Crowe has a doctorate in political science from Princeton and has held many important posts in the Navy, including Deputy Chief of Operations and Commander in Chief of the Pacific fleet, where I first met him several years ago in Honolulu, before being

named Chairman of the Joint Chiefs of Staff in 1985. Admiral Crowe will be followed by Profs. Paul Kennedy and Richard Cooper, whom I will introduce separately after the Admiral has completed his testimony.

Bill, I want you to know that personally I am enormously pleased that you could come and very grateful. I believe this is probably the first time, although I suspect it won't be the last time, that you are testifying before the Congress after having stepped down as Chairman of the Joint Chiefs. You have served this nation brilliantly throughout the course of a distinguished career. We benefited greatly from your wisdom in the past, but now that you are freed from the bureaucratic requirements of speaking within the framework of established policies, we hope to benefit even more from your thinking on these important issues. So, I am delighted that you could come. Please proceed and then I will have a few questions for you.

**STATEMENT OF ADM. WILLIAM J. CROWE, JR., FORMER
CHAIRMAN, JOINT CHIEFS OF STAFF**

Admiral CROWE. Thank you, Congressman. I am still in the process of decompressing. Someone asked me this week if I was a civilian and I said, yes, but I was a very uncomfortable civilian. I have had some real rude shocks. I discovered that it cost 25 cents to mail a letter in this country. I was stunned by that after I retired.

Representative SOLARZ. If you run for Congress you can send them out free if you get elected.

Admiral CROWE. Maybe that's the reason that people do run for Congress. [Laughter.]

In any event, I believe strongly and I think that I should say at the outset that this hearing addresses a very, very significant subject, and one that I do not feel is getting the attention which it deserves. I applaud your efforts to focus on these issues which are extremely important, and the quicker the better.

I do not have a prepared statement, Congressman Solarz, but with your permission I will make a few preliminary remarks before opening myself to questions. I should qualify my comments. The thrust of them will be made in the strategic area. I, in no sense, consider myself an international economics expert. You have some rather distinguished authorities on that subject on your agenda. In any event, as I look back on our security policy in the postwar era, the preeminent lesson I would draw is that the American people derive a large return on their security investments not only in war, but in peacetime as well, in fact every day of the year.

George Shultz used to say that the military provides the umbrella under which all of our diplomatic cards are played. And I believe that accurately describes one of our main functions. We certainly have a lot of evidence for this statement in the postwar era. Our contributions to NATO, including the longest period of uninterrupted peace that we have enjoyed in Western Europe. Certainly our military contributions have had a great deal to do with that phenomenon, the success of our security shield in the Far East. Also when I was Commander in Chief of the Pacific, a constant stream of Asian leaders emphasized to me that their remarkable

affluence and progress would not have been possible without American troops and ships in the western Pacific. Over the last few months, Libya, the Persian Gulf, Grenada.

I would argue that an important element, the remarkable turnaround of Moscow, has been our strength. In fact, some would say that the most important element has been our determination not to be intimidated and to stand up to Communist pressure, not just once, twice, but over a long, long period of time.

I would be the first to admit that our postwar security policy has been expensive, at times it has been burdensome. But I would argue vigorously the payoff has been high. Our world is still free and prospering, millions of people still turn to the West for hope, and pluralism is still the way of the future, not communism. Certainly, we have seen a lot of evidence of that in the recent past.

In the face of such evidence, no one can persuade me that our security investment over the last four decades has been misplaced. Having said that, let me move to the future. The real security problem which is implied in your own statement is not what we face today, but tomorrow. Unfortunately, the world refuses to stand still, and every headline proves that to us.

Frankly, we are in the period of what I would characterize as a very uncertain strategic transition. Put simply, the future ain't what it used to be, and that is tough to deal with. So, let me just say a brief word about the political military climate as I see it.

The most important international factor, of course, is the Soviet Union. This is very compressed, but here's how I come down.

First, I think we should applaud Mr. Gorbachev's efforts and wish him well. I believe that he and his key supporters are committed to their vision and to fundamental reform. He certainly has a lot of guts. I hope he doesn't slip on them, but he has a lot of courage.

At the same time, we must understand that his main problems are economic and domestic and there is little that we can do to make the average Russian forget the last 70 years and all of a sudden become wise in the ways of free market economics. That is a problem that they have to solve themselves and I see very little that we can do about that.

Although foreign policy success might help Mr. Gorbachev it would be foolish to harm our own interests to give him what would be at best a short-term boost. If we can develop initiatives that are mutually beneficial, we should do so and do so with vigor.

For example, we should continue to enhance the superpower dialogue, to erase misunderstandings and to negotiate equitable arms cuts. I believe strongly that the U.S. military should continue to play a role in those endeavors.

Many, of course, want us to accept the Kremlin's rhetoric at face value and reduce our own defense expenditures posthaste. I would be very cautious here. It seems to be ill advised. I mean it is such a broad leap of hope and faith before we have some tangible proof of performance and timetables.

Someone suggested to me the other day that in dealing with the Russians in this uncertain period that we should apply the first rule of wingwalking. Congressman Solarz, do you know what that is? Wingwalking was referring to the barnstorms of the 1920's and

1930's that used to perform in air circuses around the country, and one of their feats was to walk on wings while the airplanes were airborne. I said, what is that first rule? And he said, the first rule of wingwalking is to never let go of something until you have a hold of something else. That makes a lot of sense to me.

Now, the Third World which in my view is growing rapidly in importance to us in our own security calculations. The international economic interdependence which has mushroomed in the last 25 years will continue, and I believe that we will be more and more economically and politically involved with countries outside of the superpower relationship.

For example, in a speech that I read just this week by James Schlesinger, he points out that Persian Gulf oil is more important to us than it was in 1973 or any time in the past. And despite the Iran-Iraq truce, the international importance of that region is increasing, not diminishing; he means both economically and strategically. He calls the area the Balkans of the future. Promoting a stable political climate in such a region will become even more significant as American businessmen and investors seek out new customers and resources and our government, in its traditional way, attempts to keep such tinder boxes from erupting into a larger crisis.

International terrorism and drug trafficking will climb higher on our agenda. Congress, of course, is well aware of that reality. The latter imperils our very fiber. Our whole society must engage the drug menace. The military is making a substantial contribution in countering both drugs and terrorism. It is daily becoming better postured and more committed to deal with these threats. We should make no mistake, new missions require some reorientation and equipment and training, as well as additional resources. These new assignments will not be cost free. There simply is no free lunch.

In thinking of these kinds of countries, the smaller nations of the world, my father used to say, "the only threat to little nations is big nations. The only threat to big nations is complacency." I urge the Congress to keep that in mind.

As to our allies, the international patterns of cooperation are in transition as well. In a macrosense, NATO is sharply divided between those who oppose change and elements that want to rush headlong into troop reductions. The coalition has always had its share of bickering. But the picture today is muddier than I have seen it in my 25 years of experience with NATO.

I do not believe that the drive for further "burden sharing" will produce very much. As a matter of fact, I think the countries of Western Europe are going to spend less on defense no matter what we do. Likewise, I believe that—I don't believe that increasing our NATO expenditures for the purpose of keeping our allies involved makes much sense. Frankly, the defense of Europe is not more important to us than it is to them. That is a personal view, not an administrative view. In my mind, the alliance will survive the current trauma but it will ultimately remold itself into a looser arrangement, I am talking in terms of years now, not in the immediate future, probably with reduced U.S. participation. Also, such an outcome would ease our burdens, and that is something that we

have sought for some time. We must understand, however, that it will also erode Washington's influence over European affairs.

On the other side of the world the economic positions of Japan and Korea will inevitably spill over into the strategic area. Our Asian allies should share more of the security burden in some fashion. But as you know as well as anybody, this proposition is not easy to sell. Nevertheless, we must be persistent and firm and be prepared to use our leverage to get Tokyo to assume a larger share of the security expenses in the Far East in some way. While this dispute will very likely loosen our ties with Japan, I do not believe that it will destroy them.

Let me just say a quick word about the domestic picture. It is, of course, the ultimate responsibility of the legislature to decide how our resources are allocated. I personally believe that we must balance out the deficit. I admit, however, to a certain amount of dismay at the way the strategic process—rather the way the congressional process impacts the matters of defense. There is too little discussion of the threat, the larger strategic picture, allied attitudes, the state of our forces, or whether money saved will go into redressing the deficit. And often there is a very strong—strong swell of “pork.”

I would like to see fundamentals considered. I commend the work of this committee and what you are attempting here. I think it is an important step in that process. But no matter what I like, there is little doubt in my view that the Pentagon will have to make do with less funds for the foreseeable future. And, of course, we are already seeing evidence of that and have since 1985.

Given these realities, and despite the uncertainties, there are several observations I can make. The prospect of lower defense appropriations argues the urgency of equitable arms cuts, both nuclear and conventional. We must explore every opportunity to drive down the one threat that can do catastrophic damage to the United States, and that is the Russian arsenal. A constrained fiscal climate cannot support the present structure, which is primarily aimed at a major holocaust in Western Europe, and at the same time protect our global interests which are increasing daily. It is from a military perspective that I am talking, Congressman Solarz.

Given those conclusions, the point is probably not far away when the Secretary of Defense will have to consider some basic changes in the role, the size, the disposition, and shape of our forces. Obviously, in the process, our presence in Europe, Japan, and Korea should be examined and discussed not only by the Congress, but by the American people. If a decision to cut down overseas is taken, I would argue that we should retain and emphasize those missions that we alone can perform and that our allies are not capable of.

For example, nuclear weapons, control of the seas, air power, regional contingency forces, sea and air lift, and space, as well as the ability to counter drugs and terrorism.

In my view, the fact that Americans want to spend less does not necessarily mean that they want no defense or a weak defense. I believe they will still expect the President to field an effective strategic deterrent to control local crises and exert our will when necessary. Even if all the trends we can discern in Moscow play out in

our favor, the business of protecting American interests in an uncertain world unfortunately will not go away.

Frankly, dramatic shifts in defense policy deserve a national debate on the fundamental issues, and I would assume that you would believe likewise, Congressman Solarz, having convened this committee.

I would argue vigorously that it is preferable to decide where we are going and how high before we irreversibly slash or reorient defense spending. That doesn't strike me as too much to ask, especially given that the whole free world, not just the United States, depends on our strength.

That concludes my informal comments.

Representative SOLARZ. Thank you very much, Admiral. Let me begin by asking you whether you think the cold war has come to an end, and if not, what would have to happen before you reach the conclusion that it had?

Admiral CROWE. I think it would be premature to say that it has come to an end. Movements of that depth and force and scale don't end abruptly. I don't think. I'm not sure I will know when it ends. I think one day we will just get up and say, "My goodness, we are living in a new world and the cold war is gone." I heard yesterday a speech where a man said it's over, we've won. I think that conclusion is a little dramatic. I wouldn't say that until I knew a little more about what the world is going to look like, until a lot of time passes on both sides.

Obviously, the events of the last few months and years have been stunning. I always in my heart believed that this would happen, but not in my lifetime. And yet we are unbelievably seeing movement and changes and revelations.

Representative SOLARZ. I fully agree with you that the kaleidoscopic character of the changes which are taking place is truly amazing. It is precisely because of the changes taking place that we thought it would be useful to begin the process of assessing their implications for the future of our national security. So, let me pose some hypothetical questions, with the hypothetical only in the sense that they haven't happened yet. Given what has been happening, today's hypotheticals may very well be tomorrow's realities.

Admiral CROWE. I would have denied that a few years ago, but today I cannot deny it.

Representative SOLARZ. We have seen the transformation of Poland from a one-party dictatorship into what appears to be a parliamentary democracy. It may not survive, but it certainly has taken a giant step in that direction. Hungary is in hot pursuit as we speak. It is now possible to speculate in ways that 2 weeks ago we couldn't have speculated, and that a profound transformation in the German Democratic Republic, whether or not it occurs, very much hangs in the balance. But certainly one can contemplate the possibility of the emergence there of some more democratic kinds of systems.

Now, if we assume for the purposes of this question that countries of Eastern Europe, maybe not necessarily all but most, move in the direction of parliamentary democracy where governments emerge that reflect the will of their people, and let us assume fur-

ther that we get a START agreement along the lines that will be discussed, and also get a CFE agreement along the lines now being discussed. And we continue a serious dialogue with the Soviets on a whole range of original and global problems. Under those circumstances would you say the cold war has come to an end? Or would the remaining Soviet military power and the continued character of that state, together with their remaining alliances with countries such as North Korea, Vietnam, Czechoslovakia indicate that the cold war is still a reality?

Admiral CROWE. The simple answer is that the cold war that my generation knew would be over. The ground rules would be different. The strategic situation would be different. But I think the point isn't whether the cold war is over or not. These changes which I described are fundamental, and they are more than welcome. We applaud them. But we misunderstand that even if all of these trends play out as you have described them, the Soviet Union is still a superpower. It is sitting, even with these announced military reductions, it will have 4 million men under arms. We have a long history of fighting with other democracies. I say, we, the West does. We are going to have to fashion some kind of security relationship with the Soviet Union. I mean, it will be different. It will not be the world that you grew up in or I grew up in. We don't know what it will be like. But we have to work it out, and we have to know what that is about.

Representative SOLARZ. I gather what you are saying is that even if the cold war can be said to have ended, we still could face a potential military threat from the Soviet Union.

Admiral CROWE. Well, we are going to be in competition. I don't think there is any question about that. Whether it is socialist or democratic, with that type of power we will be in competition. Let me tell you the people in the Soviet Union do not envision completely eliminating their military. They do not envision complete disarmament. They envision a force that can fully and adequately defend the Soviet Union.

Representative SOLARZ. Let's assume we get the START agreement and the CFE agreement along the lines currently envisioned. Is it your view that that would and should be the end of the strategic and conventional arms reduction process, or would you favor a START II or a CFE II?

Admiral CROWE. You're trying to look very far out into the future. If you're going to conclude all of these "ifs," of course I would like to see us do some more. I would like to see us continue to march. All of these events that you have described will have an impact of their own on the environment. I don't know what it will be. Pretty soon the process will begin to run out. People are not willing to go to zero.

Representative SOLARZ. We are a long way from zero.

Admiral CROWE. That is absolutely true. I worry about the American inclination to interpret recent rhetoric and events as an excuse for zero armament.

Representative SOLARZ. Let's assume that we get START I and CFE I and we move into START II and CFE II first at the nuclear level. What is your view of the concept of the minimal nuclear deterrent assuming it is mutual and verifiable? Could you envision

really deep reductions to below the START level assuming they were mutual? Or do you think we are pretty much approaching the minimal requirements of deterrents even in a post-cold-war era?

Admiral CROWE. To begin with, there are so many uncertainties in that equation and the calculus. What is lacking in the arms control dialogue today is confidence on both sides. What we need is some kind of meaningful substantive reduction in which both sides concur and that are carried out, actually implemented, with some verification on both sides. Then both sides are satisfied with and can prove that it can be done. If that happens, if we generate that kind of confidence and that kind of success and the world believes in it, then we can march forward with a consensus. Yes, I would like to see us go forward, and I would say the prospects for it are good. But what I have just described is a great big "if."

Representative SOLARZ. I take that point. I think most thoughtful people do. But since we are talking about the future, if that "if" should take place, I wonder—

Admiral CROWE. You have a lot of other players, incidentally, which we haven't even talked about. As you come to lower levels you have all of Western Europe, you have China, you have the Third World, you have regional instabilities, et cetera, et cetera, et cetera.

Representative SOLARZ. For much of our history we did not maintain a large standing army.

Admiral CROWE. No, we did not. And we may be going back to that format.

Representative SOLARZ. That is precisely one of the questions that I wanted to explore. If we can through a series of regional agreements, arms control agreements, we can substantially diminish the Soviet threat and move beyond the cold war. Under those circumstances, do you see a need for a large standing army, anything along the lines that we have now? I am not suggesting here the alternative to that is total disarmament, going to the Costa Rican model. Presumably, we would want to maintain some military establishment for a variety of contingencies. But could you envision it at a dramatically lower level than we have now?

Admiral CROWE. We don't keep our military just for the sake of keeping it. Sometimes I think the Congress does, but at least strategists and planners tend to relate it to something that has to do with the threat, with international conditions, the state of our forces, and so on. And when the world changes, the shape and disposition of our military should change.

Now, what I would envision is that even if the Soviet Union considerably reduces the size of their forces, they are going to retain a large reserve force. They have been structured that way for centuries and they are going to continue to be structured that way. It will be one that is not near as dangerous in terms of surprise attack, immediate conflict, but over a long term of friction and crisis it will be a very, very imposing force because mobilization can build it up. We would have to have some kind of system that at least protects us against that possibility—some kind of hedge. Under that situation we would probably shift our emphasis to reserve mobilization which we have had in our past history; and as you would say,

a smaller standing force. I find that very, very credible if you assume the right things.

Representative SOLARZ. Other than from the Soviet Union which as you suggest would pose in any case a residual potential military threat to the United States, would you see any other significant threats to our security?

Admiral CROWE. Very much so, yes I do.

Representative SOLARZ. Where would they come from?

Admiral CROWE. I intended to imply in my remarks that I think regional instabilities are going to assume a larger role in our calculations. For example, the one instance I cited specifically was the Persian Gulf. We will need some kind of ability to project our influence into those areas and to support our foreign policy much in the fashion that we did this year. Frankly, I see no light at the end of the tunnel regarding instability in the eastern Mediterranean. We are going to be dealing with that uncertainty for quite a long time.

Central and Latin America may be the wave of the future in this regard. We should have forces that can be employed there; mobile forces that can be there when we need them.

Representative SOLARZ. How much of a problem for our own national security are the kinds of regional instabilities you are referring to outside of the context of the continuation of the cold war? That is, where we aren't engaged in regional conflicts that are a kind of continuous effort to check Soviet expansionism?

Admiral CROWE. It is not clear to me that even if the cold war goes away that that will go away.

Representative SOLARZ. What I am saying is—I take your point. Regional instabilities will continue.

Admiral CROWE. The Soviet Union is still behind them, they have the ability to encourage surrogates and anti-Americanism. We are seeing evidence today that even in a new environment they haven't changed in that regard yet.

Representative SOLARZ. What if, for example, we hadn't been involved in the cold war with the Soviet Union? Would we have been as concerned as we have been for the last several years over the situation in Nicaragua?

Admiral CROWE. I don't know. I think we would have been very concerned. Whether we would have been as concerned or not is a different matter. Now, bear in mind the military environment that I describe in the Soviet Union in the future would still play in these kinds of developments even under a new political setup. We cannot afford regional instabilities becoming larger and larger crises as long as we are vying with another large country.

Representative SOLARZ. Do you envision any realistic possibility ever that as we move into the 21st century that say China or Japan could potentially pose serious military threats to the United States or our interests?

Admiral CROWE. Whether I can envision it or not I can tell you that there are many millions of people in the world that can envision it. In the Pacific, when I first came to that part of the world there was great suspicion and resentment about the Japanese and the possibility of rearmament of Japan. And I have seen a lot of that sentiment shift to worrying about China.

Representative SOLARZ. Are there any circumstances under which you would think it would be justifiable to remove the 7th Fleet from the western Pacific?

Admiral CROWE. You are talking about the real world or the theoretical world? If the threat goes away and so forth, why of course.

Representative SOLARZ. What do you consider the main threat which justifies the presence of the 7th Fleet in the western Pacific? Is it the Soviet threat?

Admiral CROWE. It has been in my lifetime. You know, curious things happen. I have seen it graphically demonstrated this year in the last 18 months. When we first went into the Persian Gulf, for example, and in fact I was over here testifying before you on a number of occasions, there was reluctance among some of the Members to encourage or approve that development. We even had some resistance among the Gulf nations. We went into the Persian Gulf, we sort of prevailed, and now removing our forces is proving to be very, very difficult because the players themselves don't want our forces to leave. We will run into the same kind of problem in the western Pacific, I guarantee you that.

Representative SOLARZ. One of the main developments in the western Pacific in the last few decades, of course, has been the emergence of Japan as an economic superpower. Perhaps the first economic superpower in history that shows not to become a military giant as well. To what extent do you think Japan's economic, technological, and financial power poses a threat to our national security, so long as it is not hinged to the rearmament of Japan?

Admiral CROWE. Of course, I don't know how competent I am to comment on that, but with that kind of economic strength and so forth, it can always, if they choose, be translated into military power, et cetera. On the other hand, given the character of modern day warfare and technology, Japan is not well postured to be a great military power just because of its size and location, et cetera, et cetera.

However, if they choose to do harm to us without ever—I am not talking about militarily, I am talking about economic, and there are some who argue vigorously that they already have—

Representative SOLARZ. Would you like to take a stab at giving us a definition of national security? What do you think we should have in mind when we talk about the need to be able to protect and defend our national security? What would you say it is now and how that might change, if at all, if we move into a post-cold-war era with the Soviet Union where they do not pose the same threat?

Admiral CROWE. I would adopt a broader definition of national security. It has a number of legs, not only your economic well-being, your educational stature, the quality of your life, as well as the democratic institutions, strong democratic institutions deep rooted. You should be postured across the board so that those institutions and those ideas are not threatened.

Representative SOLARZ. Supposing—

Admiral CROWE. And if the character of the threat changes, you change.

Representative SOLARZ. Suppose we define it in the broadest possible terms as our capacity to protect and maintain our way of life

which would include our economic well-being and our political system?

Admiral CROWE. Which I would subscribe to.

Representative SOLARZ. Now, if that were acceptable as a very rough working definition, I think we would probably agree that for much of the four decades the main threat to our way of life has been from the Soviet Union, its military capacity.

Admiral CROWE. We certainly looked at it that way. Some people say we were wrong, but that is the way we interpreted it.

Representative SOLARZ. I certainly looked at it that way, and I think most Americans did, not all. Even now—

Admiral CROWE. Incidentally, the Soviets looked at us the same way.

Representative SOLARZ. Even now they still have the capacity to destroy not only our way of life, but our entire country in 30 seconds.

Admiral CROWE. There has been no hint that they are going to change that.

Representative SOLARZ. But if we were once again looking to the future, if we were to move beyond that, do you think it would be fair to say that, under those circumstances and in the absence of the emergence of some other major military threat, the main threat to our way of life would be more in the form of the economic challenges we confront from other developing and industrialized countries? That unless we remain competitive over time it could diminish our ability to maintain our relative standard of living as well as some of the internal problems that we have, for example, social problems we have in the country that would impact on our ability to preserve—

Admiral CROWE. Those will relatively increase in importance. The military threat—the new military relationship with the Soviet Union is hard to envision. We will just have to let water seek its level and see how it sorts out; how much military, how willing they are to draw down, what their relationship to the Warsaw Pact will be. There was an extremely interesting article in the Wall Street Journal this morning about the Warsaw Pact's independence in taking positions on the arms control negotiations. It serves the Kremlin right, they have the same problem we have with NATO. [Laughter.]

Representative SOLARZ. You spent a career in the American military, rose to the pinnacle of power in the Military Establishment. Do you think that our military powers have declined in absolute or relative terms?

Admiral CROWE. From when to when? I happen to be in the Navy. When I came into the Navy we were the only Navy. Now, all kinds of people are using our oceans. So, obviously, in a relative sense, yes, in my lifetime our relative military power has declined. No question about it.

Representative SOLARZ. Presumably paradoxically at the same time that our absolute power was increasing, our relative power had declined.

Admiral CROWE. That is not surprising.

Representative SOLARZ. I wonder if you could just ruminate for a minute or two about the economic foundations of our military

strength, particularly as we move into an era where high tech weaponry seems to be increasingly important? How does one relate that to the possibility of a substantially reduced military establishment?

Admiral CROWE. Putting aside the last part of the question, I think that as a strategic planner and as a military man I have been very concerned about our inability to get our arms around the impact of international economic interdependence or the military problem. We studied the experience we have had, that is the only history we have, but we have never found and certainly we have never fought a major war where the world was as economically interdependent as it is today. When I was in southern Europe, you know 50 percent of Europe's oil comes from North Africa—even in World War II when the world was different, the German war machine ran out of oil, and whether we can fight living with the "new world" is an open question. We do not understand what economic interdependence would do to the United States. We have obviously many, many military things that were produced in this country in World War II that are not made here now. We would have to have a constant flow of goods and materials coming into this country to mount any kind of effort. We didn't have to do this in World War II. It is a serious problem to try to plan for imports of large amounts while you fight a global war.

Representative SOLARZ. Let me try to draw you out a little bit more on this question in terms of our own economic and industrial capacity. What relationship do you see between a strong or adequate defense and a strong and competitive economy?

Admiral CROWE. I think there is a direct connection. First of all, what we depend on in defense, No. 1, is the qualitative edge. And if your technological establishment, your industry cannot give it to you, you don't have it. That's where we get our technological edge.

Representative SOLARZ. Would it be fair to say that even if we enter into a situation where substantial force reductions become possible, you would envision a continuing necessity to invest resources in military modernization so that we can maintain a qualitative edge in anticipation of contingencies that might develop and cannot be predicted now into—

Admiral CROWE. I prefer that, but I'm not confident that we will do that.

Representative SOLARZ. Are there any steps that you think we need to take in order to maintain adequate economic—

Admiral CROWE. There are a lot of steps I would prefer you to take but you are talking about the future. We haven't even done it in the present. We are talking about a period where we were under great threat but we have not hedged our bets in the fashion that you are talking about. We have allowed a number of manufacturers of some very important items to go down to a dangerously small number. We have allowed our services to compress to the point where we can fight with the material that we have at the beginning of hostilities for only a short period of time. We have allowed our industry to shift its emphasis in such a fashion that before it can pick up the load you would have a huge gap. You run out before industry can begin to produce replacements and substitutes and spare parts and so forth. In a major war that would be a

tremendous problem if not a fatal war stopper. We have not in our wisdom—seen fit to correct that fundamental weakness.

Representative SOLARZ. Have you read Kigan's "Price of Admiralty"?

Admiral CROWE. I'm halfway through it right now.

Representative SOLARZ. It is a fascinating book as are all of his books. I don't want to ruin the conclusion for you, but since you are here I have to get your judgment on it. His basic conclusion is that in the struggle for control of the seas the scales have tipped in favor of the submarine, and he bases this on his analysis of the battle of the Atlantic in the Second World War and argues now that the depth to which submarines can go and all of their other technological advantages, it would be virtually impossible to sustain the convoys to Europe that were sustained in the Second World War. Presumably it would be necessary if we had a major effort.

Admiral CROWE. Of course, it is also very speculative. I am a submariner. I have great faith in our underwater weapons, et cetera, et cetera. But throughout the bulk of my career, I have never seen a submarine fire a torpedo in anger. In Vietnam we didn't fire one single Polaris missile there. We deployed our naval forces many times, we have used them many times, but since World War II we have not used our submarines to sink ships. It is a diverse world.

Let me say one thing about industry, it is fine to tear our hair and ring our hands. But in today's context the Soviet Union likewise has great vulnerabilities. They have some very serious problems which have been accented or highlighted by recent events—they are now trying to shift their production from military goods to the consumer sector, and it is proving difficult, just because their industry is so terribly inflexible. Now, that is not a very big problem for them as long as you pursue the philosophy that they pursued the last 40 years where you keep a huge military installation, you have huge industry. But if they ever do some of the things that they are talking about, for example, scale back, reduce and then reverse the process, it is going to be much more difficult for them than it would be for us.

Representative SOLARZ. How would you as a submariner compare the Soviet submarine threat to Atlantic shipping compared to the threat posed by German submarines during the Second World War?

Admiral CROWE. Incidentally, I went through a Soviet nuclear submarine when I was in the Soviet Union. It was impressive and a little scary.

Representative SOLARZ. Would you trade off one of ours?

Admiral CROWE. Not necessarily, but it was an impressive man of war and it can kill you. I will tell you that it can sink you.

Representative SOLARZ. The question was how would you compare the Soviet submarine threat to shipping in the Atlantic compared with the German submarines during the Second World War? Greater or lesser in the event of war?

Admiral CROWE. It is a very complex question. I know what you are referring to. The Germans started World War II, I think, with 50 submarines or something like that. They mounted a huge threat and today the Soviets have 300 submarines. There are a lot of per-

sonnel factors that go into the equation and so forth. I would say that—and incidentally, Marshal Akhromeyev and I have talked about this subject. We would prevail in a war at sea. But the losses would be heavy. It would be fiercely fought, and the casualties would be very, very costly.

Representative SOLARZ. Does Marshal Akhromeyev share that judgment?

Admiral CROWE. I don't know. But he does agree that it would be a fiercely fought war at sea and he has a deep respect for our naval power.

Representative SOLARZ. We certainly hope that the hypothesis will never be put to the test.

Admiral CROWE. And so does he.

Representative SOLARZ. Indeed, one of the most encouraging aspects of the current situation is that it looks even less likely that that will be put to the test now than it may have several years ago. So, we are moving forward, and I think this has been a very good beginning for us. We appreciate the benefit of your—

Admiral CROWE. What you must keep in mind, whether we like it or believe it or whether it would actually be used in war that way, that the Soviets have really built their submarine force to do something different than you're talking about. Now, that isn't totally comforting. It is in the nature of war that no matter what you build something for, when you find that it is not useful and it is just standing there doing nothing, then you do something else with it. But that is not the original rationale for their submarine business, and it is not the way that they deploy it today, that is not the way they use it. They use it to defend their country, and to defend their ballistic missile submarines and to fashion defense in depth, we call it the citadel theory. Germany didn't have that in mind at all. They built their submarine for one purpose, and that was to interrupt trade into Great Britain, and that was their original goal and that was their final goal. It is a little different situation.

Representative SOLARZ. Let me ask you finally, if we were to get a CFE agreement, START agreement, let's even speculate that we can get a CFE II agreement, go down say to not 10 percent below current NATO levels, but let us say 40, 50 percent below current NATO levels if that kind of an agreement were ever possible, in that kind of world, that kind of environment, would you see any merit to a proposition in which both the alliances would be dissolved in the context presumably of even deeper cuts on both sides? Or do you think that even under those circumstances, even under the emergence of democratic governments in most of the East European countries and the continuance of perestroika in the Soviet Union that it makes sense to preserve the alliance structure even if loosely, that we do not have in both sides of Europe?

Admiral CROWE. Both sides?

Representative SOLARZ. Yes, we are obviously not going to dissolve NATO while the Warsaw Pact remains, but if there were an offer on the table where the Soviets say, look, we are prepared to dissolve the Warsaw Pact if you are prepared to dissolve NATO. Let's get beyond the division of the world.

Admiral CROWE. I think it would be very unrealistic. If we were to dissolve NATO, we would reconstruct it in another mode. Given

the character of our free life and that we cannot do everything alone, we will still need allies. In the history of NATO, while we have a lot of internal bickering and so forth, really there is rather impressive unity. We have established the coalition over the years. With one stroke you can dissolve the documents but you are not going to dissolve the rationale or the spirit. I don't think the Soviets are so unrealistic that they would expect that. And, incidentally, I think a certain amount of that reasoning applies to the Warsaw Pact. They have a lot of ties that have been built up that they are just not going to be able to cut.

Representative SOLARZ. It appears that one of the questions which has come back onto the agenda is the question of German reunification.

Admiral CROWE. That is a different matter, and a most interesting one.

Representative SOLARZ. If, and this is an enormous "if," perhaps an improbable "if" in terms that the last week or so all of the improbable ifs that do look more probable—but if you have democracy in the GDR and a lot of people say under those circumstances the *raison d'être* of the GDR would no longer exist. Under those circumstances, if there was a strong sentiment in Germany for reunification which would presumably require the Federal Republic to leave NATO and the GDR to leave the Warsaw Pact, since it is hard to envision the GDR joining NATO, and even less possible to envision the Federal Republic joining the Warsaw Pact. What would be your view of that from the point of view of American security interests?

Admiral CROWE. We have supported German unification for some time. We will continue to support it. My view is that our ingenuity would work on some new arrangement that would accommodate that goal without destroying the ties between the rest of the NATO countries and West Germany. The human mind is an amazing instrument.

Representative SOLARZ. But if, in fact, we had a situation where the Federal Republic left NATO and the GDR left the Warsaw Pact in the context of reunification looked at purely from the point of view of American national security interests, would that be better than what we have now or would we be worse off, purely from the point of view of our security?

Admiral CROWE. A lot would depend on what is happening in the Soviet Union. What would happen to the Soviet Union in the process? You are shoving me out on the edge to make pronouncements and judgments on the basis of very little information. I don't know that I can do that. I know what I want in our approach would be to have both, and we would work very hard to get both. In other words, a unified Germany, and also some kind of a coalition relationship. You would say, well, that is not possible. I don't know. We are amazing when we put our minds to it.

Representative SOLARZ. Of course, we would like to have the Soviet Union in NATO as well.

Admiral CROWE. There may be some in the Soviet Union who would like to join.

Representative SOLARZ. Well, Admiral, I gather you have to go. We have other witnesses. This has been very helpful. We appreci-

ate your coming. We are dealing obviously here with some very big questions, hypothetical questions, but I think it is important for us to start asking these questions.

Admiral CROWE. So do I, Congressman Solarz. I urge you to continue to not make it a one-shot affair. And I really urge you to spread this throughout the Congress.

Representative SOLARZ. Thank you very much.

Our next witnesses are two eminent scholars with national reputations. Richard N. Cooper served as Under Secretary of State for International Affairs from 1977 to 1981, and earlier in his career as a staff economist with the Council of Economic Advisers. He is a professor of economics at Harvard University, presently on leave with the Institute for International Economics. He is the author of several books and articles on international economics.

Paul M. Kennedy is a professor of history at Yale University. He was formerly a visiting fellow at the Institute for Advanced Study at Princeton University. He served as a research assistant to the renowned military historian, Sir Basil Liddell Hart, Professor Kennedy has also written several books and articles including, "The Rise and Fall of the Great Powers," which was a runaway best seller last year and he triggered an enormous amount of discussion and controversy.

Why don't we begin with Mr. Cooper and if you could summarize your views in about 10 minutes and then we will have some questions. I do very much appreciate your coming. I look forward to hearing what you have to say.

STATEMENT OF RICHARD N. COOPER, PROFESSOR OF ECONOMICS, HARVARD UNIVERSITY

Mr. COOPER. Thank you very much, Congressman Solarz. Like Admiral Crowe, I believe this is an important series of hearings, and I am glad you have inaugurated them. I would like briefly to identify some important changes in the world—some that you mentioned in your own opening statement, some general remarks about the implications for U.S. policy and then address the question of U.S. influence in the world, whether it is in decline or not.

First let me identify changes in the world that have taken place over the last quarter century and are continuing. The first point is that there has been a rapid economic growth in many other countries. Japan is in everyone's mind today, but there are countries that are growing much more rapidly than Japan today, the so-called newly industrializing countries. Europe itself grew more rapidly than the United States in the 1950's, 1960's, and 1970's, although that has not been true in the 1980's. This rapid growth of other countries implies the relative—I underline the word relative—economic decline of the United States since the Second World War. That is not only not surprising, but indeed was an object of American policy starting at the end of the Second World War.

The second dramatic change in the world economy is its increased openness and interdependence both for goods and capital, but especially for financial capital.

The third change is that Western Europe is slowly consolidating, first economically but with increased political consultation taking

place. It has not yet moved into the defense area except in the NATO context, but some Europeans hope that it will do so in the next quarter century.

The fourth change involves the introduction of perestroika and glasnost in varying mixes in the eastern parts of Europe, including the Soviet Union. These will possibly revise the shape of European politics in fundamental ways in the next decade or so.

The fifth change is the increased awareness in the general public in this country and in Europe and Japan of the impact of economic growth on the global environment, on fisheries, ozone, deforestation, and the looming possibility of global climate change, something that heretofore has not been in the forefront of our concerns.

What implications do these changes have for U.S. policy? The first is that we have to factor the increased openness of the world economy into our own thinking. The dramatic failure to do that resulted in the surprise with which the American public and political system greeted the emergence of the large trade deficit in the mid-1980's, even though it was completely predictable, and indeed was predicted by the Institute for International Economics, as a consequence of the configuration of American economic policies in the early 1980's. It should not have been a surprise, but it was a complete surprise. So we have to change our way of thinking about how the United States interacts with the rest of the world.

Second, we must do things more cooperatively to accomplish our stated objectives. We have recognized this for a long time in the security area where we have NATO and the United States-Japan defense agreement, and in limited economic arenas such as the creation of the International Monetary Fund to provide short-term lending along with discipline, and the creation of the World Bank to provide long-term lending.

But many areas that have hitherto been considered domestic policies, such as securities regulations or taxation of corporate profits, now have to be seen in the light of the rapid flow of information and capital internationally. The possibility for escape from onerous regulations or taxation by going aboard are ever increasing. Reasserting control to achieve our domestic objectives is going to have to be done in cooperation with other governments.

A recent example of that, for instance, is the new common capital requirement for banks. That is just the tip of the iceberg. It is clear that mitigation of global climate change, if that is thought desirable, will require cooperative action by the major players.

Third, with respect to national defense, substantial cuts in expenditures for the defense of Europe may become possible before the year 2000. That is for the next decade. But it would be premature to take these cuts now. Glasnost in the Soviet Union is remarkable. It has progressed much more rapidly than perestroika, the restructuring of the Soviet economy.

The Soviet military capability remains formidable despite some recent withdrawals; indeed, the withdrawals from Afghanistan removed a major distraction from the Soviet Union and permit even more formidable force configurations, at least as far as Western Europe or Japan are concerned. I would emphasize especially that defense production in the Soviet Union continues at a very impressive pace. We should pursue every reasonable opportunity to en-

courage reductions in Soviet conventional forces in Europe and especially conversion of Soviet defense industry to civilian use. But we should not cut our deployments significantly until we are confident that Soviet forces are in fact in a purely defensive mode, which Gorbachev has called for, but which we have not seen yet. If that were to come about, then I can envision substantial cuts in the Army and in the tactical Air Forces, relying proportionately more for defense of the United States, as we did historically, on a peacetime Navy and the mobile forces, the Marines that go with the peacetime Navy. But we are not there yet.

Let me now make some remarks about the sometimes alleged decline of the United States. Here I am uncomfortable with the word "power" which is used frequently in your questions, because—perhaps erroneously or idiosyncratically—I identify power with the ability to coerce, the possibility of annihilation, for example. We have that power today. That power does not by itself translate into influence, that is to say, capacity to influence the course of events in many areas. We have the power to annihilate. But we as Americans should be much more worried about our ability to influence the course of events. I will use the word "influence" rather than power.

The first point I want to make is that I believe the U.S. share of gross world product will be substantially lower 25 and 50 years from now than it is now, just as it is substantially lower now than it was in 1950. In that sense, the U.S. role is declining.

That development strikes me as inevitable. There is nothing that we can do about it, and we should adapt our thinking to whatever consequences flow from that. It is inevitable for two reasons. One is that population is growing more rapidly in the rest of the world than it is in the United States. The other is that rest of the world is technologically behind the United States and Japan and Germany and a few other other countries. Their scope for catching up to the technological frontiers is substantial, whereas we are basically on the frontiers. That means that if countries get their acts together politically and socially, and increasingly they do, as we have seen in Korea, in Taiwan, in Thailand, and in other countries, they can grow more rapidly than the United States, and the United States would be relatively in decline. That to me is simply a forecast of the future.

I would point out that for exactly the same reasons Japan is also in relative decline, and indeed Japan's position in this respect is somewhat worse than the United States, because Japan remains, and as far as I can see will remain for the foreseeable future, hostile to immigration by non-Japanese, whereas the United States remains an open country receiving people from all over the world. And while the natural growth in our labor force declines, the actual growth in our labor force will continue because of immigration. In this particular sense Japan will likely decline even more than the United States. Japan has perhaps reached its acme around now in terms of share of gross world product.

My second observation is that in my judgment the American economy is alive and well. It is flexible, it is adaptive, it is innovative, it has shown rapid growth in the 1980's. A lot of that was recovery from the 1982 recession, admittedly; but it has demonstrat-

ed a great generation of employment with great capacity to adjust to change. We have many problems in this country, and they should not be ignored. In the economic area they have been well documented by the MIT Commission Report, "Made in America." We need to get on with improvements, especially in education, quality control of our industries, reducing the adversarial relationship that has traditionally existed between labor and management and between management and government in this country. There are lots of things that we can work on. We should not be complacent. But when all is said and done, the U.S. economy still generates by a substantial margin the highest standard of living in the world. I for one would not trade the U.S. economy for any other single national economy.

If that can be accepted, what is the talk about decline? I suspect that the perception of decline comes from a perceived decline in our capacity to influence important events. We are frustrated when things do not happen the way we want them to happen, and that is an understandable reaction.

What I would like to point out, although I cannot be dogmatic about it since I am not a historian is that in fact there has been no trend in the last 40 years in the ability of the United States to influence events. In particular, we have not been on a downward trend. I suspect that our perception of being on a downward trend comes from the common tendency to idealize the past, which looks pretty good in retrospect because in overall terms it came out well. We idealize the 1950's and 1960's. They have become a golden era. We forget the problems that we had back then, because they came out all right in the end. We are preoccupied with the problems that we have now. But let me remind you of some of the things that went wrong during that period.

First, in terms of our mainline foreign policy objectives, Czechoslovakia became Communist, China became Communist, Cuba became Communist, the Russians marched into Hungary and Czechoslovakia and we couldn't do anything about it. There was a stalemate in Korea. With respect to our allies, we supported the European defense community in the early 1950's, but that was defeated by the French Parliament. We urged Britain strongly to join the European Common Market in the mid-1950's. Britain declined then to join the Common Market, although it changed its mind 15 years later. But at that time, when the United States was pushing hard, it declined.

The French withdrew from the military command structure of NATO, requiring a major reorganization of the logistical setup of NATO. The United States unsuccessfully pushed for a multilateral force in Europe. There were a lot of failures. But the bottom line is that the failures did not devastate those decades. On the whole we came out fairly well. But if you look at them in detail, there were a lot of failures. And I would suggest—I will hypothesize because I don't want to be dogmatic about it—that there is no trend in our influence.

One can take the economic arena as well. We had the Kennedy Round, the successful round of trade negotiations in the 1960's, but agriculture—the major objective of the United States—did not do too well. We had the Tokyo Round in the 1970's, just as successful

as the Kennedy Round, although once again agriculture did not do too well. We now have the Uruguay Round, and my forecast would be at the end of the day that the Uruguay Round will be successful, but the progress in the agricultural area will fall well short of U.S. objectives. That is not a very startling prognostication.

To sum up, I would say that the United States could then and can now block major initiatives by other non-Communist countries, but the United States could not then just as it cannot now carry its own objectives over the opposition of our important allies. In other words, we are in a cooperative regime where we can persuade our allies to do something. If we fail, it won't go forward. I don't see any marked change in the last four decades in that respect.

Let me turn to the current economic situation which is a preoccupation of many people, the large U.S. trade deficit and the growing external debt. I believe that the United States will have substantial current account deficits, although not on the scale that exists today, throughout the rest of this century. In other words, Americans will borrow from the rest of the world many tens of billions of dollars every year for the rest of the decade.

That forecast comes in part from my perception that the debt problems of developing countries will not be solved quickly. We are working our way out of them, but they will not be solved in the next decade on a magnitude required to eliminate the U.S. deficit.

Now, this buildup of in U.S. debt to foreigners creates obligations for future generations of Americans, but it is worth keeping in mind that, in contrast to other borrowers, the foreign lending to the United States is voluntary. Indeed, it reflects foreign initiatives. Strictly speaking, Americans do not borrow from the rest of the world; rather, the rest of the world buys American assets. Foreigners buy U.S. Government bonds, they buy U.S. stocks, they buy real estate, they buy all kinds of things, and they do it because they want to do it, not because they're under any compulsion to do it. Basically, that is one manifestation of foreign confidence in the American economy. It also reflects, as I mentioned before, the increased integration of the world market for financial capital. Although the total foreign claims are large, we remain relatively speaking a small debtor to the rest of the world, and by relative I mean both relative to our past history in the 19th century and relative to countries such as Canada today.

Canada is a very large net debtor to the rest of the world, amounting to about 40 percent of GNP. We don't think of Canada as having a debt problem, because the Canadians have serviced their debt routinely without a problem, and generally speaking they have invested the proceeds of foreign investment productively.

What is important for the United States is not the presence or absence of current account deficits per se, but what Americans do with the resources that they get from foreigners, the resources that form the trade deficit. Do we generate the increases in future income that permit our children and our grandchildren to service these obligations? In other words, do we invest the funds, where investment may include education and spending for R&D, not just investment as it shows up in the national accounts?

Now, that is entirely an internal question. It concerns how we manage our own affairs. The rest of the world is confident that we

will service our debts. They don't care if we invest or not. That is up to us. In my view we are not investing adequately. At the present time we are consuming too much. We need a reduction in some combination of public and private consumption, and that in turn requires a reduction in the budget deficit. That is merely conventional wisdom. In my judgment, that in turn requires an increase in taxes, taxes on income which will reduce private consumption directly or taxes levied directly on consumption of particular goods. Gasoline is one that frequently comes to mind.

Let me close by suggesting that the real risk that I see for the United States is one of a self-fulfilling prophecy. A wide-spread perception of declining influence will in all likelihood lead to declining influence. The United States is the richest country in the world by a long margin both in absolute and relative terms. But increasingly we think of ourselves as poor. More importantly, we act as if we are poor, especially with regard to public purposes. We are increasingly unwilling to spend or even to think of spending for various public purposes.

The United States, it will surprise many Americans to learn, is now the most lightly taxed of all of the industrialized countries. Of all of the rich countries in the world, we Americans have the lightest tax burden, counting all levels of government, Federal, State, and local. Yet we are not willing to increase taxes. We have put ourselves into a squeeze because we recognize that we should do something about the budget deficit, but we aren't willing to raise taxes. The result is that we nickel and dime everything instead of taking initiatives. With respect to a capital increase for the World Bank, for example, we resisted and dragged our feet, although in the end we went along. We are now in the process of persuading ourselves that we should support a quota increase in the International Monetary Fund. We should have done that a year and a half ago. Theoretically, these institutions have been strongly supported by the United States, and if anything, they are more important today than they were 20 or 25 years ago.

Our colleague known to you, Congressman Solarz, Phil Habib said to me when I was in the State Department in 1977, that was 12 years ago, we are not paying enough attention to Central America. Shouldn't we be putting a little more money into Central America and trying to influence events there more strongly? That was prophetic. We have now put hundreds of millions into Central America where some timely tens of millions might have been a stitch in time. It is hard to make those judgments. But that could have been the case.

Representative SOLARZ. Mr. Cooper, this is enormously interesting, but are you about to conclude? We want to figure out what to do in the 21st century before the 21st century arrives, and I want to give Mr. Kennedy a chance. I have a whole bunch of questions to ask on the basis of your testimony which is very illuminating and interesting.

Mr. COOPER. Let me close by saying that we are not prepared to contemplate major nonincremental initiatives because we are hamstrung in our thinking about anything that involves funds. And that is a sure way to lose influence. It is that attitude rather than

our economic incapacity as the richest country in the world which is the risk for the future. Thank you.

Representative SOLARZ. Thank you very much. Mr. Kennedy, you have been very patient. We are here to hear what you have to say.

**STATEMENT OF PAUL M. KENNEDY, PROFESSOR OF HISTORY,
YALE UNIVERSITY**

Mr. KENNEDY. I am very grateful that you initiated this, Congressman Solarz, because I think that it is an important line of inquiry and I think it is important for two reasons. One is that although Congress cannot "micromanage" external and foreign policies—as some people use the phrase—I do believe Congress plays and ought to play a major role in the defining of national defense and foreign policy, especially in a period when the United States is in a world undergoing tremendous change, changes affecting its own position. So, your decision to initiate these hearings I think is very much to be congratulated. I am delighted that you are doing it.

And the second reason I am delighted is that, from your letter of invitation to us, it is clear that your committee thinks that the world is changing swiftly and that therefore it has become a matter of some urgency to redefine our concept of what is national security. I believe, and I think you feel the same, that that definition of national security cannot refer simply to military policies or to military spending alone. I think it ought to refer instead to those sources, those underpinnings of long-term national strength in the state and power of our manufacturing, investment of science and technology, of educational skills, all of which ultimately the Armed Forces and the defense policy of this country have to rest upon.

When I responded to your letter of invitation, Congressman Solarz, I sent your staff two position papers of mine. One, "The Changing Metric of Power," which tried to assess the global position both of the United States and the Soviet Union, how they might have changed in the military sphere, and the economical and technological spheres and in the nonmaterial sphere since the height of the cold war.

And the second paper was called, "American Grand Strategy, Today and Tomorrow: Learning From the European Experience," trying to suggest some general principles we might think about in following through a long-term grand strategy for the United States. I don't know what status they have with your staff. If they could be circulated to your colleagues on the committee I would be grateful. If they are suitable for inclusion in the record, I would be equally grateful.

Representative SOLARZ. Without objection. Hearing no objection, we will include both of those position papers in the record.

[The two position papers follow:]

"The Changing Metric of Power"

by

Paul Kennedy (Yale)

The remarks which follow constitute a "skeleton" outline of what I hope (with your advice and criticisms) to turn into a more substantial paper concerning alterations both in the international environment in which the American and Russian superpowers will have to operate, and indeed in our very measure of what constitutes "Power." Central to it is the proposition that many of these changes will occur regardless of whether the USA and USSR desire them, regardless of what takes place politically within either state, and even regardless of their evolving bilateral relationship. On the other hand, the very existence -- and increasing importance -- of these global developments will add to the pressures for policy changes within the two countries and to the reasons being advanced for a rethinking of USA-USSR relations.

For the purposes of simplicity, I have divided my analysis of the changing metric of "Power" into three sub-sections, respectively (i) The Military Dimensions of Power, (ii) The Non-Military Dimensions of Power, and (iii) The Non-Material Dimensions of Power -- thereby attempting to cover the three realms of armed force, productive strength, and ideas. Obviously, this is a somewhat artificial separation [it is difficult, for example, to have a modern military without an efficient economic base], but it does give us a simple way of understanding just what may be happening to the relative power and influence of the USA and USSR as we head towards the 21st century.

I begin this analysis with what might be termed a caricature* of the bipolar, "Cold War" age. It was a world dominated by the two large victor-states of the Second World War, both of which possessed enormous conventional armed forces and shared an uneasy and fearful duopoly of nuclear weapons-systems. They alone had the capacity to destroy large parts of the earth (themselves included). Each maintained an array of allies, client-states and satellites. There were no other "Great" powers in this system, and although a "Third World" existed it possessed little or no influence upon decision-makers in Washington and Moscow.

Economically, the two superpowers together possessed between one-half and two-thirds of total world GNP: outside of the areas controlled by the Soviet Union, the international monetary and trading system was centered firmly upon the U.S. dollar. Ideologically and culturally, there also appeared to be a bipolar (or Manichean) struggle being fought for the world, which was invited to adhere either to the Marxist or the democratic-capitalist vision. In consequence, global politics was often portrayed as a zero-sum game; if one side "lost" China (or Egypt, or Vietnam), the other side had "gained" it.

How much of this caricature exists in the world of the late 1980s?

The Military Dimensions of Power

At first sight, it may appear that little has altered in this realm. The USA and USSR are still in a class of their own militarily,

*Caricature in that, while the chief features are recognizable, they are also exaggerated (and simplified) in various ways.

each spending around \$300 bn per annum — perhaps eight times that spent by the next-largest powers — in order to purchase an array of nuclear and conventional forces which no-one else can match. Nevertheless, I think it can be argued that even the metric of military power has been altering, and in a variety of ways.

At the nuclear-arms level, perhaps the greatest transformation lies in the increasing mutual perception by the military authorities of the disutility of ever employing such weapons. This is not to say that there was no questioning of their possible use in the 1950s and 1960s -- almost all of today's arguments against the employment of nuclear weapons were being put 15 years ago -- but that, over time, the perception of their impracticability and unpredictability has widened. This perception is at the heart of the current crisis within NATO, but it exists in equal measure on the Soviet side. [How could the Politburo know that the Americans, or the French, would not respond to a large-scale Warsaw Pact conventional assault with nuclear weapons? How could that exchange be limited in area and effect? What is the point of "prevailing" over a West-Central Europe devastated by nuclear war? If the Chernobyl disaster produced such radiation, what would this sort of exchange do to the land and atmosphere of Eurasia?] The more these questions are raised, the more likely, I suspect, will be the pressures for a mutual "build down," both in short-range weapons -- removing nuclear-headed shells from artillery in the Fulda Gap, taking nuclear depth-charges off warships -- and in the major strategic systems. To be sure, even the most sweeping reductions now being proposed will leave each superpower with the capacity to destroy the other many times over. But what is interesting

is that the key question now being addressed is no longer "how much is enough?", but rather "how can one so structure one's armed forces and military doctrine to avoid nuclear war altogether?" This implies not just deterrence in the traditional sense, but self-deterrence, self-limitation, self-control; the chief task of those in charge of nuclear weapons is to prevent their ever being used.

Moreover, while this double-think world ["I have weapons which I dare not use"] still confers a hard-to-measure power and influence upon those nations possessing nuclear weapons -- for they might, in extraordinary circumstances, employ one -- the USA and USSR no longer possess a duopoly in that respect. The enormous increase in destructive capacity which new Trident-type SLBM systems will confer upon both the British and the French nuclear armories, together with the steady advance in the capabilities of China's land-based and sea-based systems, implies that if one takes nuclear-war-fighting seriously the bipolar system has been broken. We are now in a situation where the two nuclear superpowers are seriously considering "levelling down" whilst three other powers are still "levelling up." Whatever the insistence of the British, French and PRC governments that their systems have to be kept out of any US/USSR arms-reduction talks, it is difficult to think that those countries can

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As A. A. Kokoshin put it to the House Armed Services Committee on March 10th, 1989, "Making the task of preventing war the cornerstone of all activities of the armed forces (with a decisive role of political means) requires a serious study and reassessment of a number of traditional operational and strategic views and concepts." (My emphasis.)

permanently exclude themselves if there is a serious build-down by Moscow and Washington. Once one puts the nuclear systems of five powers on the negotiating table, one will have returned to the sort of multi-polar disarmament diplomacy which characterized, say, the Washington Naval Conference of 1921/22 — with all of the complications that implies.² And once that gets started, the United States and Soviet negotiations may perceive, not only that their nuclear duopoly has gone, but that on many issues they may have more in common with each other than they have with (e.g.,) the French or the Chinese position.

Clearly, this erosion of the nuclear duopoly affects the USA much less than it does the USSR. This is not to say that it does not complicate things for American negotiations — indeed, it makes them fiendishly complicated. But from the Soviet viewpoint — if nuclear war-fighting is to be seriously planned for — the implications must be alarming. For example, if, in the midst of a great international crisis around the year 2000, Soviet satellite sensors detected a submarine-launched missile emerging from the Indian Ocean and heading northwards over the Hindu Kush to the southern USSR, how could they know whether the missile had been fired by a United States vessel -- or a French -- or a Chinese -- or even an Indian vessel by that time?

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See S. W. Roskill, Naval Policy between the Wars, vol. 1 (London, 1968), pp. 204-33, 269-355; W. R. Braithwaite, The United States Navy in the Pacific, 1909-1922 (Austin, Texas, 1971), pp. 465-688.

This raises the further point, that just as it was impossible for the USA and USSR to prevent the medium-sized powers of Britain, France and the PRC from acquiring their own nuclear deterrents, so may it also be impossible to prevent a further proliferation to powers located in the most volatile regions of the globe. Already, there are enough indications that countries such as Israel, South Africa, Brazil, India, Pakistan, are far along that path.³ If they proceed further, especially into sea-based systems, and even if (a big IF) they never employ such weapons, of what particular advantage — apart from the negative one — will the possession of nuclear weaponry be to Moscow and Washington in a world in which around ten nations have a (large or small) nuclear capacity? Finally, does this all not suggest that the USA and USSR share an overwhelming secular interest — as the two status quo nuclear powers — in working to head off any further proliferation and to hammer out common policies towards arms reductions, avoiding accidental exchanges, and all other sorts of "confidence-building" measures?

Much of what has been said above about nuclear weapons may also be applicable to the relative position of American and Soviet conventional military power. Although the superpowers never enjoyed a duopoly of conventional force as they once did at the nuclear level, nonetheless their armies, fleets and air forces did seem in a different league from those of any other country. In some important ways (e.g., US maritime

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J. C. Snyder and S. F. Wells (eds.), Limiting Nuclear Proliferation (Cambridge, Mass., 1985); and G. Quester (ed.), Nuclear Proliferation (Madison, Wis., 1981), cover this topic.

power, Soviet air-lift capacity), they surely still are; no third country could fight either of them with any prospect of victory. On the other hand, the trends in the global military balances seem to be tilting away from the two giants. If Mr. Gorbachev's regime does indeed move to a strategy of "military sufficiency" by carrying out a succession of reductions in Soviet armed forces, that will clearly mean an abandonment of its earlier intention to be equal to the combined fighting power of the Chinese and the US-Japanese military forces in East Asia, and NATO. While unilateral force reductions by the USSR may improve its economic prospects, they will certainly reduce its "share" of global conventional military power, whether it is in the area of main-battle tanks or simply in the number of men in uniform.⁴

But this shrinkage in the Soviet "share" is in all probability going to be paralleled by that of the United States, because of the increasing American concern about the Federal government's deficit, a change in domestic and congressional opinion (concerning the trade-off between military security and economic security), and a strong pressure upon Japan and the European NATO allies for fairer "burden-sharing" in the realm of defense costs. In strictly financial terms, the American position is quite logical. As one New York banker put it earlier this year, "How long can we go on with this unbalanced arrangement whereby

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Demographic changes in the USSR -- especially the shrinking numbers of Russian males -- were likely to reduce the size of the Red Army in any case. Why not make a virtue out of necessity, and try to go for mutual force reductions? This has the advantage of pleasing the Europeans (and the Chinese), and also reducing the US "share."

an economy of some \$5 trillion [the USA] overspends on defense to protect an economy of \$6 trillion (the EC) and an economy of \$3 trillion [Japan] from the threat posed by a nation with an economy of only \$2½ trillion [the USSR]?"⁵ Nevertheless, the consequence of redistributing the "burdens" is likely to be reductions in the size of the U.S. armed forces as compared with those of its allies — and as compared with third powers such as India and the PRC.

But this reduction in the gap between the size of the American and Soviet armed forces on the one side and "the rest of the world" on the other is probably less significant in an already excessively over-armed globe than two other (related yet also distinct) tendencies. The first is the production of a fast-growing array of miniaturized "smart" weapons which, at least in the current stage of development, are tending to favor the defense over the offense [the "Stinger" syndrome], and to make vulnerable large and expensive weapons-systems [the "Exocet" syndrome].⁶ This in turn is interacting with an increasingly globalized system of armaments production and trade, so that sophisticated

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Quotation (from N.Y. Times or Wall Street Journal) to come.

I say "strictly financial terms," because NATO allies such as West Germany bear certain non-financial "burdens"; and because large-scale increases in Japanese military power have their own complications.

6

Since advances in technology have alternatively favored the defense and then the offense, it is not prudent to assume that this is a lasting development.

weaponry produced in, say, China and Brazil is joining the stream of arms-sales from such traditional suppliers as the French, the Americans and the Russians. The further consequence is that the historical "gap" in armaments technology between developed and non/under/less-developed societies which has existed since at least the Industrial Revolution [the "Gatling gun" syndrome] has been eroded in many respects.

The second tendency -- and it may only be a temporary one -- is that in both the USA and the USSR there is a growing acceptance of the disutility of conventional force to "solve" problems and to secure "victories." Their respective experiences in Vietnam and Afghanistan are probably the chief reasons for this disillusionment, but other countries' experiences -- Israel in the Gaza Strip and West Bank, Vietnam in Cambodia, Britain in Ulster, and virtually everybody in the Lebanon -- suggest that military force is not very useful in dealing with what are essentially local political disputes. Yet even as the utility of conventional force is being called into question in so many parts of the world, at the same time unconventional force (guerrilla movements, terrorism) seems to be flourishing, supported by unorthodox regimes such as Iran, Libya and North Korea, which don't appear to be any larger power's "client-state."

What all this suggests is that, if there ever was a time when the military planners in Moscow and Washington thought they had an "edge" over the indigenous forces in carrying out an operation in the Third World, that edge may now be somewhat eroded, technically, politically, and psychologically. There are simply far too many regional problems, from Central America to Yugoslavia to Palestine, which cannot be "solved"

by the injection of a few Red Army divisions or the deployment of U.S. aircraft carriers. More to the point, as the utility (or, at least, the occurrence) of military force shifts from the conventional to the unconventional domain, that not only erodes the relative influence of the two superpowers, but it also gives them a growing common interest in checking international terrorism, cooperating in a mutual "hands-off" policy in volatile parts of the globe, and so on. Perhaps Moscow was being tongue-in-cheek in suggesting recently that the KGB and CIA work together against terrorism; but, in fact, from the viewpoint of the raison d'etat of each power, there is some logic in that proposal.

The Non-Military Dimensions of Power

Whether or not the above arguments concerning the long-term erosion of the superpowers' relative military advantage are admitted, very few people nowadays would maintain that their relative productive, technological and financial advantage has not declined over the past 20 to 30 years. This is not to say that such relative economic decline has occurred to the same degree in each country; the USSR, which never came close to the USA in sheer economic size, exhibits such structural problems at the moment that the decline may in some ways be absolute, and not just relative. But notwithstanding critical differences between the two countries, the overall point remains: that the era in which the USA and USSR had a combined economic weight of perhaps between one-half and two-thirds of total world GNP has steadily shrunk, so that their combined weight today is probably only about one-third of the global total.

How one obtains an exact measurement of this altered "metric" of power is beyond the present author's crude statistical skills. It is complicated by the inherent difficulty of putting a figure on the GNP of a Soviet union which has an artificially-fixed, nontransferable currency.⁷ It is further complicated by currency exchange-rate fluctuations (especially in the value of the US dollar), and by the recent tendency of American governmental agencies (e.g., the CIA) and international bodies to calibrate GNPs in terms of purchasing-power-parities instead of the traditional measure of current exchange-rates.⁸ By that traditional measure, however, the relative decline is clear.

	<u>GNPs in 1950</u> (1964 dollars)	<u>GNPs in 1980</u> (1980 dollars)
USA	381 billion	2,590 billion
USSR	126 "	1,205 "
Japan	32 "	1,157 "
UK, France, } W. Germany, Italy }	198 "	2,243 "
EC combined	---	2,907 "

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See F. D. Holzman, "Soviet Military Spending: Assessing the Numbers Game," International Security, vol. 6, no. 4 (Spring, 1982), pp. 78-101; idem., Financial Checks on Soviet Defense Expenditures (Lexington, Mass. 1975).

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I have taken these from tables 36 (p. 369) and 44 (p. 436) of my The Rise and Fall of the Great Powers (New York, 1987).

Thus, although there is a different dollar-year baseline, the overall point remains. The US economy in 1950 was larger than the combined economies of the next six largest economies; in 1980, it was scarcely ahead of the next two (USSR and Japan), and was smaller than that of the European Community. On the other hand, the Soviet economy itself had also lost ground to Japan -- which was nearly as large by 1980 -- and it was distinctly inferior in size to the combined GNPs of the European Community.

These 1980 figures seem roughly in line with Oye's:⁹

Shares of Gross World Product, 1980

EC	22.5%
USA	21.5%
Japan	9.0%
Other developed countries	9.7%
China	4.5%
Less developed countries	14.8%
USSR	11.4%
Other Communist countries	6.1%

What the shares are in 1988/89 is more difficult to come by, although we all probably know what has happened to the chief economic

⁹ K. A. Oye et al. (eds.), Eagle Defiant: U.S. Foreign Policy in the 1980s (Boston, 1983), p. 8.

regions of the world during the 1980s. According to Mr. Gorbachev, the Soviet economy has hardly grown at all in the past decade, and the same has probably been true of certain other Communist economies (Poland, Rumania, Cuba) so that the relative share of total world GNP possessed by the USSR and "other Communist countries" is now probably less than 15%. On the other hand, China's economy has roughly doubled in size during the past decade, and Japan's has also seen impressive (if less turbulent) growth; that of the EC, and of "other developed countries," has grown overall, but not fast enough to keep their share of gross world product; whereas that of the USA has been affected by the decline in the relative value of the dollar . . . So that, very roughly, and at current exchange-rates, the shares of gross world product today might be something like the following:

EC	21%
<u>USA</u>	18%
Japan	12%
Other developed countries	4%
China	6%
LDCs	18%
USSR	10%
Other Communist countries	5%

All this is difficult to confirm without much further (rather tedious) statistical research, and it is -- as noted above -- now greatly confused by the change of measurement from current exchange-rates to

power-purchasing-parities. This newer method has certain uses, but it is disadvantageous for our purposes since it makes extremely difficult any comparisons with relative shares held in 1950 or 1970, and it disguises relative declines (or increases) in shares of global GNP caused by the weakening (or hardening) of a currency.¹⁰

But whatever the difficulties of getting at this statistical element of the "metric" of power, it is clear that global economic balances have shifted over the past three decades, and that they are continuing to shift, with Japan, China, and the rest of East Asia enhancing its share, the EC holding its own (or slowly declining), and the USA and USSR both likely to see a further relative shrinking of respective shares; each of these tendencies having implications for the strategical landscape of the 1990s and early twenty-first century.

Moreover, none of these global macro-economic statistics assist us in understanding the changes which have occurred within the structures of the economies of the USSR and USA over the past few decades -- changes which have considerable bearing upon the metric of power. For example, the Soviet Union's "Power" is weakened by the running-out of cheap and accessible energy supplies; by the shrinkage of its skilled labor pool and by various other demographic trends (including the rise in the

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This latter effect can be clearly seen in the RAND Corporation's "projection" of the Great Powers' GNPs in 1990 and 2010, which appears on p. 7 of Discriminate Deterrence (Report of the Commission on Integrated Long-Term Strategy, Washington, D.C., January 1988), and is a marvelous exercise in optimism.

non-Russian peoples' share of the total population); by the great weaknesses in infrastructure and communications; by the aging of industry and manufacture, and the continued inability to modernize agriculture; and by disturbing trends in infant mortality, median death-rates, and other signs of a crisis in Soviet health care. If the measure of real "national security" is now to encompass much more than strictly military power, then it cannot be said that the USSR is very "secure" -- or even "very powerful." And the more Mr. Gorbachev stresses the non-military dimensions of the country's health and strength, the less imposing the Soviet Union must appear.

Within the US economy, too, there are altered structures which pertain to the metric of power. Having transformed itself in the past decade from being the world's greatest creditor-nation to being a large (by some measures, the largest) debtor, it is now in a position of some financial vulnerability, relying as it does upon repeated Japanese purchases of US Treasury bonds in order to cover the federal deficit. American banks, once the world's largest, now seem small-scale compared with Japanese giants; while both the increasing amounts of yen-denominated trade, and the shifting currency balances within bodies such as the IMF and World Bank, confirm the general metamorphosis away from the post-1945 dollar-dominated international financial system into something much more pluralistic.

Parallelling this financial transformation there has developed a stubbornly high American deficit in merchandise trade, which is itself exacerbated by the weakening of the US manufacturing base; too many products (from fax-machines to cameras) are now only made by foreign

firms, and even in the strategically critical defense-related field many products (e.g., Cray supercomputers) depend upon foreign-made parts. As the Pentagon's own Defense Industries Board is beginning to appreciate, the American manufacturing sector no longer provides an adequate base for the "arsenal of democracy." Steadily losing global shares of high-tech products and patents, with low levels of national savings and of commercial R & D, producing insufficient engineers and skilled workmen, affected by its own demographic trends, and with public educational standards embarrassingly low by international comparison, the United States bears many structural handicaps as it moves into the 1990s.

None of these trends are irreversible; and even taken together, they do not portend an economic crash. What they do suggest is that, should the trends continue, there will be an erosion of the American share of the world's wealth-creating facilities. In military terms, that means that the country will be less well structured to bear heavy defense burdens than it was in, say, Eisenhower's time. ¹¹ And if the metric of power is to be measured by non-military criteria (shares of world manufacturing, strength of banking system, educational levels, health and mortality figures), then the position of the United States looks somewhat less imposing.

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I am not a trained defense economist, but it does seem to me that this notion of how an economy is structured is altogether more important than the old debate on whether spending 6% or 8% of the GNP on defense is excessive: see also, pp. 530-32 of The Rise and Fall of the Great Powers.

The above remarks have focused upon very traditional, that is, national-economy-centered ways of measuring shifts in the global productive balances, and with some justification. In this past century of giant battleships and main battle tanks, the relevance of a nation's steel industry to its military power has been clear to all. By the same token, and from a security viewpoint, the position of the USSR would be effected if it was increasingly eclipsed technologically; just as the security of the USA could be affected if it lost its electronics industry or became vulnerable to international financial "blackmail." But there are even wider transformations bearing down upon today's global scene which, while having profound implications for the metric of power are going to be less easy to understand -- and, in particular, to deal with -- according to traditional, state-centered practices. Consider, very briefly, the following six developments:

(i) There are enormous changes underway in global demographic trends, with the aging of, and the very swift shrinking of the advanced democracies' shares of world population, ¹¹ with non-Russians gaining the majority over Russians in the Soviet Union, with significant regional-demographic and ethnic changes in the United States, with 3rd-world per capita income being held down by the population explosion, and with the impact of AIDS on all this yet to be fully understood. The advanced industrial democracies enjoy about three-quarters of the world's

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Roughly, from about 22% in 1950, to about 15% today, to about 8-9% early next century.

wealth; it would be unwise to assume that they can enjoy that share when they comprise less than 10% of the overall population.

(ii) It is now becoming clear that we are threatened by widespread ecological changes, and by a steady warming of global temperatures, due to a variety of causes. Even if we take the middle-range "guesstimates" of the temperature increase -- say, 4 or 5°C, rather than 9 or 10 -- the implications, from Bangladesh to the New Jersey shoreline, from Nebraska to the Ukraine, are very worrying.

(iii) Almost as worrying, I think, are the implications of the productivity revolution in agriculture, livestock, fisheries, that may be caused by biogenetic breeding and implants, better fertilizers, and other scientific techniques. According to some estimates, we are looking at possible increases of 20% a year in agricultural output (compared with the on average 2% a year rise in productivity and output which has been one of the causes of the food surpluses of the past few years.) To have, in 10 or 20 years time, all of today's food output produced by, say, one-third of today's farmers, affects agricultural communities everywhere, from India to Bavaria to Wisconsin.

(iv) We are possibly on the brink of a revolution in robotics and automation, coming chiefly out of Japan, which will affect manufacturing production and employment faster than anything since the early Industrial Revolution. In Japan, there are already factories where robots assemble fellow-robots, which are so automated that only a few technicians and

engineers are needed to run the plant, where there are confident predictions of manufacturing productivity increases of 20%, 30%, 40% each year. Just who can compete with that, apart from the South Koreans, I don't know.

(v) There is already well under way a communications revolution in the field of banking and currency flows, shifting billions of dollars of hot money in and out of dollars every half-hour, going on almost 24 hours a day, and at many times the volume of merchandise-trade flows; and there are gigantic corporations -- Toyota, Ford, Mitsubishi, media conglomerates -- which are globalizing themselves: both of which may cause the average citizen, the township, the small firm, the state Governor, to feel less in control of their economic future than before -- tho' they also offer opportunities, to countries and regions which can persuade those firms to invest in their area.

(vi) There is still, lest we forget it, an enormous and looming international debt crisis, especially in regard to a region of critical importance to the United States, that is, Latin America; there is, if anything, a growing North-South divide (with Japan and the East Asian NICs having joined the "North" . . .); and it is not a good occasion in history for the United States' own financial situation to be precarious, and to have the exchange-value of the dollar so dependent upon purchases by the Bank of Japan to keep it propped up.

The point about all of these trends is that they are chiefly outside the control of the traditional nation-state; they are certainly

not capable of being addressed by the despatch of an aircraft-carrier task force, or even by the unilateral measures taken by a non-military agency like the Treasury or the Department of the Environment. How is it possible for the United States, or the Soviet Union, or any other single nation, to stop global warming, or to control international financial flows, or to halt the robotics revolution? Of course, it is not -- and yet those trends do feed into the metric of power, whether it be the further technological rise of East Asia or the burning-out of the Kansas/Nebraska wheatfields, or the flooding of large parts of the Soviet Union.

In all probability, the acceleration of these global trends will lead to a greater use of multilateral agencies like UNESCO and the World Bank, in which the "developed" economies of the "North" will have to negotiate with the "developing" countries of the "South" (e.g., offering financial inducements to slow down the destruction of the tropical rain-forests). In such international forums, the USA and USSR will appear, and be treated much more like "normal" powers than the size of their military budgets would indicate; and they might also find that they had a larger amount in common than was conceivable a generation ago.

The Non-Material Dimension of Power

I concede that this is a much vaguer (and therefore less substantial) section, but I insert it in the belief that a country's global influence -- and thus the metric of power -- has been affected by the role of ideas, the transmission of culture, broadly-held (or universalist) beliefs, and so on. But it is extremely hard -- and perhaps

ultimately impossible -- to measure this dimension of "Power," and in dealing with it to free oneself from one's own cultural and ideological assumptions [of which the greatest is the assumption that all foreigners are admirers of the French/American/Patagonian/(your favorite here) "way of life"]. The world of ideas is also difficult to measure because it is so volatile, so fluid. For example, there clearly exists today a worldwide crisis of legitimacy of Marxist/Stalinist "models" of political economy, partly because these models have produced stagnant or even reduced standards of living, and partly because the revolution in communications has made it impossible (even in such a tight and charmless regime as Rumania's) to preserve a "closed" society. But a political operator as skilled as Mr. Gorbachev can exploit both the crisis of legitimacy and the openness of global communications to enhance his image -- in West Germany, and across Western Europe -- in the most extraordinary way. The battle for the hearts and minds of world opinion is always fluctuating in its fortunes.

In other words, the advance of an "open" global communications order, although much cheered on by supporters of Mr. Reagan, is not necessarily or automatically going to favor the USA all the time. To begin with, concepts such as "freedom" and "democracy," being part of the general Western tradition (and general human impulse) will be claimed by all sides and not regarded as specifically American. The key battle is more likely to be fought around the issue "what sorts of freedoms [and limitations] are most suitable?" And a raw laissez-faire position, although strongly favored by (say) Republican voters in the Southwest, may be at a discount in the arena of international public opinion at

those moments when governments may be struggling to hammer out common policies on global warming, biogenetic farming, energy-saving, and the like. With such issues at the forefront of world politics -- and their solution being mediated by international (and not necessarily pro-American) bodies like UNESCO -- there is a strong possibility that also in these non-material dimensions of power, neither the USA nor the USSR will command the relative influence they did 30 years ago. And this tendency may be increased by the very material fact that so many instruments of global communications -- media conglomerates, the major international airlines, the world's greatest banks -- are neither American nor Soviet nowadays.

In all of the three dimensions of the "metric of power" discussed above, there loom challenges to the world order represented in the traditional caricature of the bipolar, "Cold War" age. I have argued here that most of these global changes are taking place regardless of whether the USA and USSR desire them, regardless of the political and socio-economic adjustments which are made within either state, and regardless of their evolving bilateral relationship. Nevertheless, these broad transformations do increase the pressures -- and create the context -- for policy changes by the two superpowers in both internal and external realms.

Internally, the possibility exists of the administrations in both Washington and Moscow undertaking changes in policy priorities (and therefore spending priorities) in line with a mutual recognition that an excessive preoccupation with military security does not help, and often hinders, the pursuit of a nation's socio-economic security. This does

not mean that the actual reforms will be similar: a U.S. version of perestroika will have features (improving educational standards, increasing savings ratios) different from those at the forefront of Mr. Gorbachev's attention (initiating constitutional change, permitting freedom of expression, dealing with ethnic discontents, modernizing agriculture). What they ought to have in common is a broad understanding that internal changes are needed in order to help the nation adjust to a much more complex, pluralistic, and technologically competitive world order in which military force has very little utility in "solving" global problems and thus of being the chief or sole element in the changing metric of power.

Externally . . . the implications for both countries are probably clear from the arguments advanced above, but since it is (I assume) our collective purpose to suggest "Alternative Futures in U.S.-Soviet Relations," I will keep this section very short and merely note some obvious areas for improved consultation and cooperation:

- (a) further significant arms-limitations agreements, both in respect of force structures and weapons-systems as well as in sheer numbers of warheads;
- (b) significant mutual retrenchments/redeployments of forces located in East Asia, central Europe, and elsewhere;
- (c) open consultation and cooperation in regard to unsolved security issues across the globe, this to involve not only those areas in which the USSR is much less involved than the USA (e.g., Palestine), but also those problems which constituted central parts of the Cold War to begin

with -- how to respond to the drift towards German unification, how to encourage the peaceful transformation of Eastern Europe, how to cooperate over the Korean divide, how to handle the transformation of Japan's place in the Western Pacific;

(d) cooperation on issues of terrorism, surrogate wars in the Third World, mutual policies on South-East Asia, Namibia, Iran and other "trouble spots";

(e) enhanced and serious cooperation in the areas of environmental/ecological policy, space exploration, cultural exchanges, increased trade.

All this is, no doubt, the work of a generation; but with the world transforming itself so swiftly in so many different ways, and with "new thinking" being matched by new policies in Moscow, the plausibility of even having these items on the agenda of future US-USSR relations is larger today than it ever has been. My conclusion is that a policy of "standing still" is now impossible for both superpowers. And, in the words of Lord Salisbury, "There is nothing more fatal in politics than clinging to the carcasses of past policies."

"American Grand Strategy, Today and Tomorrow:
Learning from the European Experience"

by

Paul Kennedy

All Great Powers are unique, for the simple reason that they differ from each other in both time and place. The Victorian Britain which claimed to be bringing a "pax Britannica" to the world was as distinct from the Roman Empire to which it made comparison as it was from the United States that, a century later, was often regarded as having established its own "pax Americana." In geography, constitution, population, culture, and place in world history, the differences between all three Powers were immense. And yet, in the implementation of grand strategy, all of them -- as well as many other Great Powers, from the Ottoman Empire to Soviet Russia -- faced the same tests and problems.

What were -- and are -- those tests and problems? Essentially, they are to do with the search for "security," broadly defined, in both wartime and peacetime. In an anarchic world that lacks a single sovereign power to order its destinies, tribes, cities, empires and nation-states have jostled alongside each other, and all too often gone to war with each other for a whole variety of motives -- for land, for trade, for gold, because of dynastic or religious or ideological rivalries, out of fear of being overtaken or a desire to overtake. Not surprisingly, therefore, the search for "security" has usually been seen

in military terms -- of being strong enough to deter potential foes or, if that fails, to defeat those enemies on the field of battle, thus preserving the tribe's (or the empire's) existence and interests.

But beyond this narrowly military conception of security -- most easily seen in the relatively recent creation of "security" advisors to Premiers and Presidents, whose task is to advise upon the roles and policies of the armed forces -- there is an altogether broader conception. It is, in a curious way, very American: it is about the implementation of policies which would secure (in the Founding Father's words) "life, liberty, and the pursuit of happiness" for the polity in question, however restricted that polity might be.* It is a conception closely related to the larger strategic ideas of Clausewitz and Liddell Hart, which were described earlier in this volume:

To begin with, a true grand strategy was now to do with peace as much as (perhaps even more than) war. It was about the evolution and integration of policies that should operate for decades, or even for centuries. It did not cease at a war's end, nor commence at its beginning.

* The term "polity" is important here. No-one would suggest that the Ming dynasty, or the Tudor monarchy, or the Soviet Politburo, was primarily intent upon aiding the liberty and happiness of its subjects [i.e., most of the population], because the latter were not included in the "polity" of the country in question. In a democracy, the aims remain the same, but the constituent "polity," and therefore the means required to achieve those aims, are enormously enlarged.

It is because of the essentially political nature of grand strategy -- "what are this nation's larger aims in the world, and how best can they be secured?" -- that there has to be such a heavy focus upon the issue of reconciling ends and means. There was, for example, little sense from Olivares' perspective in devoting all of Spain's resources in the 1630s to the defeat of the Netherlands, if that meant withdrawal from other important parts of the Habsburg Empire.² There was a deep concern, and necessarily so, by British politicians in the early decades of the twentieth century, that if they committed a disproportionate share of the nation's manpower and resources into a European "continental commitment," they would denude their imperial defenses and weaken their entire economy; yet if they did not strive by all means to preserve the European balance of power, German hegemony was virtually inevitable.³ Since the beginning of the atomic age, there has been a repeated questioning of the utility of "prevailing" in an all-out nuclear war if, say, the northern hemisphere was devastated by the effects of that fighting. Indeed, the coming of nuclear weapons provides the strongest possible reinforcement to Liddell Hart's earlier observation that since "The object in war is to obtain a better peace -- if only from your own point of view -- . . . it is essential to conduct war with constant regard to the peace you desire."⁴ By the same token, presumably, it is essential to conduct peace with constant regard to the war (or wars) that you may be called upon to fight.

This is not to say that grand strategy in peace is identical to grand strategy in war. Clearly, the latter condition calls for "blood,

sweat, toil and tears" to a degree that simply does not exist in peacetime. Like (say) an amateur athlete, the nation-state in times of peace (that is, while not engaged in outright physical competition) has to balance many desiderata -- earning its keep, enjoying its pleasures, and keeping fit and strong; but when the race (or a conflict) occurs, a far larger amount of energies and effort is given to winning and fighting, and the other elements are left until later. After the event, one can always return to "normal."

Grand strategy in war is, therefore, necessarily more military than it is in peace.⁵ The real task for the polity in question is to ensure that, in wartime, the non-military aspects are not totally neglected (a failing of Germany in both world wars); and that, in peacetime, the military aspects are not totally neglected (a temptation to which the publics of the post-1919 democracies, recoiling in shock from the First World War, were particularly prone). Once again, it is a question of not becoming totally unbalanced.

But if the wartime task of balancing ends and means also exists in the peacetime execution of a nation's grand strategy, there is the additional problem that politically it may be the harder to achieve, year after year, since the conditions of peace conduce to turning the polity's attention to other priorities and activities. This is especially so in a period of prolonged peace, or when a nation's military security is being chiefly provided by another. It is easy to declare that a balance must always be struck between devoting too little to defense upon the one hand,

and too much to defense on the other; yet the variables which may affect the achieving of a balanced national "security" are so many, given the fluctuating course of international affairs, that very few polities have succeeded over time in preserving the right equilibrium.

It is the risks of allocating too little to defense which have occupied the more prominent place in the minds of Western politicians and strategists during the post-1945 decades, and for very obvious reasons. They had strong memories of how, in the aftermath of the First World War and under the then-prevailing political assumption that it had been "a war to end all wars," the Western democracies had steadily run down their armed forces, frozen a great deal of weapons development, concentrated their attention upon domestic affairs, allowed the decay of former alliances -- and thus placed their countries in the weakest possible position when the revisionist, Fascist states began their assault upon the international status quo during the 1930s. Militarily vulnerable, diplomatically divided, distracted by internal political and economic issues, the democracies were simply unable to institute a grand strategy which (to employ Earle's definition once again) "so integrates the policies and armaments of the nation that the resort to war is . . . rendered unnecessary . . ." ⁶ Given that these sorry "lessons of appeasement" were being imbibed by a successor-generation of Western statesmen deeply worried about the threat posed by Soviet military power, it was perfectly understandable that they conceived their chief political task as being to warn their electorates against spending insufficient on defense, and about the need to stand firm against aggression. ⁷

It is worth recalling, however, that among an even earlier generation of Western statesmen the greater concern was that too much of the nation's resources, personnel, energies and attention would be devoted to military purposes and to the pursuit of victory in the field at all costs -- to the detriment not only of the country's economic future, but also, and perhaps even more importantly, of its liberal political culture. Perhaps the best examples of this concern can be witnessed among those British politicians and thinkers -- predominantly in the Liberal Party, but also including many traditional Conservatives -- as that country debated how to respond to increased international pressures after 1890, and in particular to the rising challenge of Imperial Germany. The "responses" called for by the British Right -- the abandonment of free trade and a return to protectionism, large-scale increases in the defense forces, the introduction of conscription, controls over aliens and other "subversive" figures, an unflinching commitment to all of Britain's overseas obligations -- greatly alarmed the traditionalists. Of what real use was enhanced military power, they asked, if it came at the cost of the nation's civil liberties, of its laissez-faire political culture, of its economic well-being? Could Britain only compete with the protectionist, autocratic, militarised garrison-state of Prussia-Germany by becoming a "garrison-state" itself? To some degree, that debate foreshadowed many of the questions asked by Eisenhower in the 1950s, and by later critics not only of the so-called "military-industrial complex" but also of the tendency towards limiting individual and press freedoms, and distorting American industry, technology and science, in pursuit of "winning" the Cold War against the

Soviet Union. Did the spiralling demands for military security mean that the American polity would be compelled to ignore or downgrade the needs of social security, educational security, fiscal security, and even environmental security -- and at what later, longer-term costs? ⁹ On the other hand, if there were insufficient armed forces to deter the Soviet Union and to deal with regional security threats (e.g., Libya, North Korea), would not the nation's interests -- and the physical security of its citizens -- be seriously hurt?

Both in Edward VII's Britain and in Eisenhower's America -- or, for that matter, in Gorbachev's Soviet Union and Briand's France -- the pattern was the same: the debate was conducted (and settled) at the political level; it involved an acute awareness of the "trade-off" between ends and means and between the nation's more immediate needs and its longer-term requirements; and it involved the recognition that grand strategy in both peacetime and wartime involved much more than purely military policy.

* * * * *

But if these are the "tests and problems" facing all Great Powers as they strive to effect a balanced grand strategy in peacetime, it nonetheless remains true -- as was mentioned in the first paragraph of this essay -- that each of them is different in time and in place. Before any attempt is made to measure American grand strategy against the general principles and European experiences detailed above, therefore, it

is necessary to understand the unique historical circumstances in which the decision-makers of the United States have had to operate.

Since its early decades, the United States has been the beneficiary of a cluster of highly favorable geographical and technical factors. Protected by the Atlantic Ocean -- and the Royal Navy -- from serious external threat, the nation could divert its energies from swords into ploughshares throughout most of the nineteenth century. Rich in raw materials and food, but relatively sparse in population, its resources could only be properly exploited by the introduction of labor-intensive machinery, which thereby gave its entrepreneurs an advantage over foreign rivals; and by a communications revolution (steamship, railway, telegraph) which vastly enhanced its position in the global marketplace. Moreover, while it held aloof from Europe's political and military quarrels, the United States always benefitted from an enormous two-way economic relationship: sending out vast supplies of cotton, timber, beef and (later) machinery, and importing early European technology and large sums of capital to boost its own industrialization. It did not grow up in a vacuum.

What the wars of 1914-1918 and 1939-1945 did was to accelerate two broad trends in global politics. The first was to harness -- and boost -- the still-enormous potential of the North American continent for both peaceful and military purposes. The second was to weaken the economies of the European Great Powers by diverting too much of their limited resources into armaments, and then into mutually-devastating wars. ¹⁰ As

one demi-continent fell, another rose; and the wars quickened the pace of change.

After 1945, therefore, the United States found itself in a remarkable position (in a way, somewhat equivalent to Great Britain in 1815). It possessed more than half the free world's manufacturing capacity, it had heavily invested in new industry and products, and it managed to channel its prodigious wartime energies into an equally impressive peacetime growth during the years following. Since all of its former commercial rivals had been ruined by the war, the United States enjoyed a near-monopoly in domestic and in many foreign markets. Not surprisingly, this pre-eminent position confirmed in the minds of most of its citizens the superiority of "the American way": free markets, low government, a constitutional separation of powers, a Protestant "work ethic," and so on.

It was in these favorable circumstances, with the United States having become clear "Number One" in world affairs and its polity blithely assuming that all other societies from India to Hungary would wish to imitate its own laissez-faire and democratic practices, that Washington found itself in a "cold" war with the Soviet Union. Rejecting any return to post-1920 isolationism, the American leadership took up the Soviet challenge at every level, military, diplomatic, economic and ideological. After 1947, the USSR was to be "contained" by a ring of alliances, treaties and bases stretching from Norway to Japan. Economically, the battered societies of Europe and Japan were to be

restored to full health within the Western capitalist system by the injection of vast amounts of Marshall Aid and by the erection of a strong international framework for "open" trade and investment. Ideologically, a struggle would be waged to win the minds and hearts of other peoples, and to lead them away from the follies of Communism. To be sure, this more active role involved large costs -- in foreign economic aid, in defense spending, and in men's lives (especially with the advent of the Korean War); but those were costs which Americans were now both willing and able to pay.

Four decades later, and (admittedly) with the benefit of hindsight,
the observer cannot help being impressed by how successful on the whole
that basic American grand strategy has been. The framework of an open
world trading system permitted an extraordinary expansion in global
manufacturing, commerce and investment, ¹² and raised the standards of
living of millions of people to unimagined levels. The Soviet military
threat was "contained" throughout the greater part of the world, and the
chief alliances (NATO, U.S.-Japan Defense Treaty) have held firm. In the
realms of political culture and ideology, Marxism has made very few
long-term breakthroughs. In sum, if Truman, Marshall, Acheson and their
advisors had been asked to describe what sort of world order they hoped
would be in place 40 years later, the broad outlines might look very
close to what exists today.

Nonetheless, the world has changed a great deal since the early years of the Cold War, and in ways which could significantly affect the

evolution of long-term American grand strategy. Such changes suggest that, at the least, the component parts of the post-1945 strategy be re-examined to discover whether they need readjusting in the light of these global transformations -- and whether the order of policy-priorities also requires amendment, to permit the national strategy to be re-cast upon stronger foundations. Such a re-examination, far from being radical, is inherently conservative in nature, on the lines of Lord Salisbury's famous remark that the commonest political error was that of "sticking to the carcasses of dead policies."¹³

There are three, perhaps four, aspects to American grand strategy which, it may be argued, have significantly changed since 1945. The first is the ending of the United States' own strategical invulnerability, which for two centuries had given it an advantage that most other powers (France, the Netherlands, Russia) envied but could never hope to emulate. While the advent of very-long-range bombers and intercontinental ballistic missiles makes it difficult, and perhaps impossible for any nation to defend itself against such assaults, in some ways it was the United States which had lost the most by this development. Moreover, such a transformation was worsened by the almost-simultaneous creation of nuclear weapons, at least once the early American monopoly in those technologies had been broken -- for the results of an all-out nuclear exchange would render irrelevant the usual geopolitical advantages that the United States had possessed in the two world wars. With thousands of Soviet warheads apparently targeted upon American objects, the nation had dramatically moved into the front line in the event of future hostilities escalating into an atomic war.

The second change has been the slow erosion of the United States' undisputed pre-eminence in technology, manufacturing and finance -- upon which its "rise" as a Great Power had ultimately rested. Indeed, so obvious was this American economic superiority in the first two-thirds of the twentieth century that it had been taken for granted in wartime.¹⁴ In the post-1945 years, American policy-makers were occasionally to worry about "over-extending" their commitments and resources:¹⁵ but most of them also tacitly assumed that, given a sufficient amount of time -- and in both world wars the United States had been neutral for the first three years of the conflict, and its troops only began fighting in the European theatre during the fourth -- the "gigantic boiler" could once again be mobilized to produce a flood of munitions that would succour hard-pressed allies and overwhelm out-gunned enemies. To borrow a phrase from another time, the massive economic underpinnings to American grand strategy were an "unspoken assumption"¹⁶ of decision-makers both inside and outside the country.

For two (related) reasons, our contemporary global situation no longer permits that cozy assumption to be made. The first is that, just as at the nuclear level, the United States now occupies the front-line position in the conventional defense of its own and general Western interests, from the Fulda Gap to the Persian Gulf to the Korean Demilitarized Zone. In 1917 and again in 1941, the United States enjoyed a "buffer-zone" of 3,500 miles (in the Pacific, of over 6,000 miles) between itself and enemy forces. When it succeeded to the clear leadership of the Western democracies, after 1945, that geopolitical situation was reversed. As the recent Pentagon-sponsored "Commission on Integrated Long-Term Strategy" put it,

other Power and together possessed perhaps over 60% of total world product, there is now a much different order. Economically, the European Community is as large as the United States (according to some measures, larger), Japan has overtaken the Soviet Union, and East Asia, including China, is undergoing remarkable growth. By many of the traditional assessments of relative economic power -- shares of world manufacturing and trade, banking assets, investment flows -- there already exists a "multi-polar" system, and it appears to be becoming more diffuse from decade to decade. At the same time, even the clear military lead which the two Superpowers possessed thirty years ago has to some extent been eroded, with the growth of substantial European-NATO and PRC armed forces, and the increasing proliferation of nuclear weapons and delivery-systems.

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To the degree that this "multi-polarisation" of the international system represents and fulfils the post-1945 American policy of assisting in the recovery of Western Europe and Japan, the trend can be viewed as a positive one. At all events, it is the Soviet Union much more than the United States which has been affected by the change in the overall "correlation of forces" consequent upon the revival of Europe and the rise of China and Japan; and its leadership can gain no comfort from long-term projections that suggest the USSR may possess only the world's fifth-largest economy by early next century. ²⁰ Nevertheless, the United States is also presented with a challenge of its own, that of managing relationships with other important nations of the globe that are of equal or near-equal economic weight, and no longer as dependent upon

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Washington's favors as was the case three or four decades ago. If, moreover, these alterations in the global balances continue into the future -- that is, if the American economy should grow less swiftly than those of Japan and an increasingly-united Europe, and if its international indebtedness should intensify -- this could imply further, and repeated adjustments in intra-alliance relationships, especially if American congressional and public opinion presses for greater "burden-sharing" on defense costs. But burden-sharing also implies "influence-sharing," and that in turn implies a relatively diminished position in international affairs for the United States compared with that which it naturally expected to wield during, say, Kennedy's presidency.

Vulnerability to mass destruction, the erosion of its indisputed economic pre-eminence, and the growing multi-polarity of the international system: those are the three aspects to American peacetime grand strategy that have changed the most since the late 1940s.²² But there may be another, although it is far less certain at this stage of writing: namely, the reduction and possibly the elimination of the threat of Communist expansion that has provided not only the "cement" to keep the Western alliances bound together (since the Second World War,) but also the justification for the historically-large American defense expenditures and the raison d'être for much of its armed services' operational planning, training, deployments, and force-structure. Whether there really could come about an "end of the Cold War," as is nowadays frequently asserted (and hoped for) must remain uncertain for

some time to come: a great deal depends not upon anything which the United States can control, but upon the unfolding of events within the Soviet Union and its European satellites. Nonetheless, the concentration by the Soviet leadership upon the critical issue of internal reform -- accompanied so far by corresponding efforts to improve external relations and to reduce defense expenditures and force size -- make the global scene far less threatening to Western interests than was the case in 1950 or 1960 or even 1980. Furthermore, the changes which are occurring within the Soviet Union coincide with (and interact with) a profound erosion in enthusiasm for Marxist dogmas across much of the globe: so that, whatever challenges are to be faced by the United States in the years to come, it is difficult to visualize a world divided preponderantly into Communist and non-Communist blocs, as it was often seen to be in past decades.

A reduction in the Soviet "threat" and a decline in the plausibility of a global Communist challenge would not only affect the size and futures of the U.S. armed services:²³ it would also increase the contemporary tendency to raise questions about traditional definitions of "national security." Already there is a widespread conviction in American (and general Western) public opinion that the challenges to military security are much less pressing than those to the nation's economic security -- with the Japanese technological and manufacturing challenge being regarded as a more serious "threat" to the well-being of the United States than the Soviet military danger. In addition, attention has swung to the increasing evidence of threats to the

environment, of the long-term implications of the weaknesses in the American educational system ("a nation at risk"), and of the damage done to the fabric of American society by drug traffic. Other commentators argue that the Federal Government's budgetary deficit, and its accumulated international indebtedness, are the most pressing dangers to the country's security.

All this has implications for the political priorities -- and thus the spending priorities -- of the American polity. The tendency is to argue that, in an age in which the Soviet Union is restructuring its own foreign and defense policies, and in which the global scene itself is becoming much more competitive technologically, resources will need to be re-allocated from the U.S. military into other areas (reducing the deficit, dealing with environmental problems, improving infrastructure and education, combatting drugs). This is a tendency which the Pentagon will oppose, the more particularly since the political circumstances of the early 1980s allowed it to go ahead and order the prototypes of many new and expensive weapons-systems -- the full funding for which was presumed to come in later years, an assumption that looks ever less
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plausible as time goes on.

If the external circumstances have changed greatly since the era of the early Cold War, and if they are continuing to change at a faster pace than before, that poses a more subtle test to American policy-makers: the test of rearranging the different components of their peacetime grand strategy. To at least some extent, the security environment facing the

United States as it goes into the 1990s may be likened to that confronting Britain and France in the 1920s. Before the First World War, it had been relatively easy for them to implement grand strategy -- simply match Germany's expansion, of both land power and sea power, step by step -- just as it was relatively easy for Mr. Reagan and Mr. Weinberger to argue that the aim of American grand strategy after 1980 was to match Soviet defense spending. In the altered global political landscape of the 1920s, it was much more difficult for British and French strategists to fix their bearings. The old enemy was less threatening, and might not even be a foe at all. Newer Powers were playing a larger role in world affairs. Previous allies were less reliable, more problematic. Moreover, this essentially military calculus was itself affected by non-military considerations. Public opinion in the democracies overwhelmingly believed that a great-power war was a thing of the past: weapons were too horrible, the costs too great, for any major conflict to be permitted in the future. Instead, attention was concentrated upon the nation's economic and "social" security: trade competitiveness, financial instability, threats of protectionism, structural unemployment, the needs of education, housing and health care. Predictably enough, the armed services found it difficult to justify a high level of defense spending in this changed environment: manufacturers moved out of the "military-industrial complex," and many of them withered away completely. This contraction of military spending, and of industrial "surge capacity" was not, however, attended by a reduction in foreign commitments and obligations. Consequently, when the external security environment became much more threatening again, in the

1930s, both British and French policy-makers found themselves in a
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 constrained, uncomfortable position.

This is not, of course, to predict that the United States will find
 itself in such a vulnerable position around (say) 1997 as the British and
 French felt themselves to be in around 1937. But since it is the
 aspiration of American planners to design a strategy "for the long term"
 and "for a wide range of conflicts," it is worth asking whether the
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 contemporary wisdom has got the balance right.

At the moment, there are still too many signs that most American
"strategists" (from the Commission on Integrated Long-Term Strategy, to
civilian writers such as Edward Luttwak and Colin Gray) still think in
too narrowly military terms: arms control, out-of-area operations,
"smart" weapons, large versus small "platforms," ballistic missile
 defence, procurement, manpower, and so on, occupy the centre of their
 mental state. The danger is that, as perestroika and detente impinge
 upon the agenda of policy priorities, and upon congressional and public
 opinion, the more anachronistic and irrelevant such a heavily military
 level of analysis might seem to be -- leaving Pentagon planners almost as
 bereft of their bearings as British and French staffs in the 1920s.

If the more immediate problem is to avoid a too narrow and
 conservative approach to "grand strategy" on the part of the United
 States government, the longer-term challenge is to prepare the country to
 be in a reasonably strong and flexible position to operate in the

unpredictable and perhaps volatile circumstances of the late 1990s and early twenty-first century -- which brings us back to the diplomatic and the economic and all of the other elements of any properly integrated long-term strategy in peacetime.

* * * * *

- (a) By far the most important aim of American grand strategy today, and into the foreseeable future, has to be the avoidance of nuclear war. In the profoundest way possible, the coming of atomic weapons has transformed the strategical landscape, since they give to any state possessing them the capability of mass indiscriminate destruction, even of mankind itself. It was for this reason that Bernard Brodie wrote, as early as 1946, that

"Thus far the chief purpose of a military establishment has been to win wars. From now on its chief purpose must be to avert them."²⁷

It is an observation of even greater truth nowadays, when both of the Superpowers possess literally thousands of warheads, with a capacity to blow up the world. If, as Professor Jervis nicely puts it, "a rational strategy for the employment of nuclear weapons is a contradiction in terms,"²⁸ the overriding task of statecraft is nuclear prevention, with all of its consequential implications.

Among those implications one would expect to see a tremendous attention being paid to the technical aspects of "command and control," to prevent the possibility of an accidental nuclear war, or an unintended (or unauthorised) nuclear strike escalating into a far more destructive exchange.²⁹ The second implication is the need for the abandonment of the current and implausible NATO doctrine of planning to use nuclear weapons in the event of a Red Army "breakthrough" in central Europe during a conventional war; and for the restructuring of the types of nuclear weapons held by the West, so that the emphasis is towards those "that are good for retaliation but not for initial attack, that can survive a first strike by the Soviet Union but are poor instruments for a disarming first strike against it."³⁰ The third implication is a massive "build-down" in the overall number of missiles and delivery-systems, to an irreducible minimum required for deterrence -- on the assumption that neither of the Superpowers would abandon all their weapons, given the fear of nuclear blackmail and the proliferation and development of the nuclear capabilities of an increasing number of third countries.

The fourth and final implication flows from the fourth. It is the need for the United States and the Soviet Union to work together to arrest nuclear proliferation -- something that is in the secular interests of both Powers -- as well as to combine in the effort to persuade the other existing nuclear nations (France, Britain, the PRC) to agree upon multilateral arms control and verification.

There are, indeed, good arguments for the United States and the Soviet Union to work together on many other fronts, from environmental issues to space exploration to settling some of the world's regional conflicts; but the clearest and most worthy would be in measures to halt nuclear proliferation.

- (b) The second aim of American grand strategy should be to create armed forces flexible enough to deal with a variety of possible fighting contingencies. It is an inordinately difficult task for a global Superpower like the United States, because of the types of war it might be called upon to fight. If a large-scale conventional conflict against the Warsaw Pact is the most probably scenario, then the funds presumably need to be spent upon tactical aircraft, main battle tanks, and the like. If it is more likely that the United States and the Soviet Union will avoid a direct clash but that both will become more active in the Third World, then the weapons-mix may be different: small arms, helicopters, light carriers, plus an enhanced role for the U.S. Marine Corps. Here again, the American dilemma is not unlike that faced earlier this century by British planners, whose ground forces were supposed to be capable of fighting on the Northwest Frontier of India and in continental Europe -- and that at a time (e.g., the post-1920³¹ years) when funds for the armed services were being curtailed. If there is a "lesson" from that experience -- which led to the virtual elimination of the British Army's capacity to fight in Europe, and then desperate, belated attempts to recover that

capacity at the end of the 1930s -- it is that forces and weapons which are flexible enough to operate in various battle scenarios are the ones to be preserved in periods of austerity. (Helicopters are more useful than main battle tanks; Stinger missiles are more multi-purpose than AEGIS-type cruisers). This is much easier said than done; but unless the general principle is adhered to, military cutbacks might lead to the elimination of those more flexible weapons-systems in favour of expensive, single-purpose projects -- and it would almost certainly lead to the elimination of items useful for inter-service cooperation. Throughout this century, air-marshalls have preferred strategic bombers to ground-support planes, and admirals favoured battleships over landing-craft.

- (c) The third aim and feature of American grand strategy stands in close relationship to the second: it is to preserve, and possibly to some degree to redefine, the system of alliances which the United States has constructed across the globe since the late 1940s. They are no less important now than they were at the height of the Cold War, and as the final decade of this century approaches they offer both risks -- of erosion and weakening in the face of Mr. Gorbachev's detente policies and of inter-allied disagreements upon defense "burden-sharing" -- and opportunities -- of a certain reallocation of roles and forces as the American contribution to the protection of Western interests is reduced, whilst that of some of its more prosperous partners (Japan, NATO Europe, Australia) is increased.

This aim also is easier said than done, because of two reasons. The first is that the very coming of a period of improved relations with the Soviet Union takes away the "cement" which has kept the American-led system of alliances together, while at the same time helping to increase the impression that the needs of "military security" are of much less import than those of "economic security." It thus places the burden of proof upon those American officials and diplomats who are attempting to persuade reluctant allies to spend more on defense at a time when the United States is planning to spend less in real terms and when the international scene is relatively tranquil. Here, too, there are distant echoes of the 1920s, when British politicians strove, with little result, to persuade the self-governing Dominions to increase their contributions of money and manpower to the common defense. ³² Yet, however difficult the prospect, the issue of "burden-sharing" between the United States and its allies needs to be pursued, simply because it will not go away. It is not a good strategy for the long term to have a country with a five-trillion-dollar economy contributing so much more for defense in order to protect allies possessing economies of six trillion dollars (the European Community) and three trillion dollars (Japan) from the threat posed by a country with an economy of little over two trillion dollars (the USSR).*

The other reason why this is difficult to achieve in practice is that an alteration in "burden-sharing" will most likely bring with

* All figures "rounded off" and approximate.

it some changes in "influence-sharing." Yet, psychologically, the leading nation in an alliance usually finds it difficult to agree to a reduction in its power to influence events.³³ Even as the United States turns, say, to Japan to offer loans to Third World countries which Washington itself, facing its budget deficits, cannot now provide; or as it urges the Federal Government of Germany to take the lead in assisting the economic development of Eastern Europe, and to take the largest share of any "gap" created by the reduction of U.S. forces in Europe -- even so, it will find it hard to accept the diminution of influence that such measures imply.

Given this emphasis upon redefining relationships with American allies at a time when vast changes are occurring in most Communist societies and when many parts of the globe (but especially East Asia) are undergoing remarkable transformations, there is a clear need for the United States polity to understand much more about what is going on outside its borders. On the diplomatic front, this implies not only a considerable enhancement in the position of the State Department and the foreign service (including a drastic reduction in the corrupt and offensive practice of appointing wealthy party-political contributors to ambassadorships), but also a massive increase in educational and media coverage of international events. In what is forecast to be increasingly a "knowledge-driven" society, ignorance of foreign societies, cultures and languages is likely to prove a serious strategical weakness.

(d) The fourth and final aim being suggested here is probably the most important of all, excepting the need to avoid major war itself. It is to institute serious measures to reverse those trends which have already begun to weaken the pre-eminent position in the world that the United States occupied three or four decades earlier. From a grand-strategical viewpoint (not to say moral, social and human viewpoints), it is worth asking whether it is not unhealthy and alarming that the country's National Debt should be growing so rapidly in peacetime; that the United States should have transformed itself from being the world's greatest creditor-nation to being (by some measures of accounting) its greatest debtor, with a heavy reliance each month upon foreign purchases of Treasury issues; that it has permitted the erosion or even collapse of American industry in certain key strategical sectors, so that it is now dependent upon East Asian suppliers for the electronic innards of so many of its own weapons-systems; and that the educational and skill levels of its work force are below those in virtually all other advanced societies, which in turn reflects the crisis in the American inner city schools, educational standards, and national efficiency?

While the answer to those questions can only be affirmative, the challenge is to implement reform measures precisely in a period when international affairs are relatively less disturbed than previously, and when the United States and its major partners are enjoying a long-lasting if perhaps precarious international economic "boom," with their economies

becoming ever more interdependent. In such circumstances, it may appear an anachronism to worry about whether the United States nowadays has the manufacturing "surge capacity" to supply the increased needs of its armed forces in the event of future international crises and protracted conflicts. It may also seem unreal to express concern about the American defense industry's reliance upon foreign-made products (e.g., micro-processors) when it is so easy to ship or fly them across the Pacific. It may look redundant to agitate about the United States' deep reliance upon the continued inflow of foreign capital at a time when foreign investors are pouring funds into the country at record rates.

Perhaps those concerns are anachronist and redundant. Perhaps the international system of states that exists in this post-Hiroshima era is one in which Great-Power wars will never happen again, and international cooperation and integration (albeit with lots of grumbling, and continued regional conflicts from time to time) will be the order of the day. Perhaps the nation-state itself is an anachronism, and "actors" such as multi-national corporations and international financial institutions have eroded much of the state's former autonomy. Perhaps. But those responsible for creating a country's "integrated, long-term strategy" cannot afford to make those assumptions, or to use them as the basis for national policies. It may be that foreign capital will continue to flow into the United States -- though it is worth recalling that that was the general assumption about American capital pouring into Europe in the mid-1920s, until the global economic crisis occurred. It may be that foreign-made products and weapons-parts will continue to flow across the

Pacific, to meet the needs of American defense industry -- though it is worth recalling that a similar situation existed in Edwardian Britain, which consequently found itself acutely embarrassed in 1914 to discover how reliant its defense manufacturers had become upon German-made products (ball bearings, aircraft-engines, dyestuffs, optical equipment, etc.). It may be that there is no need to worry about an American industrial "surge capacity" because there will be no more major wars -- though that, too, it is worth recalling, was also the prevailing belief of the Western democracies in the 1920s. All these issues reduce -- or increase -- a country's strategical vulnerability.

In any case, whether there will or will not be great tests of the United States' military effectiveness at some future date, it simply is not a sensible strategy to have the leading of the Western world resting upon financial and industrial foundations that are increasingly less competitive internationally than they were in Eisenhower's period, while at the same time the same nation has retained (indeed, expanded) all of the military and political commitments of those early post-Second World War years. If grand strategy is about reconciling ends and means, it is worth taking notice if the ends remain the same but the some of the means are relatively diminishing.

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All of this points to the inordinate complexity, in peacetime perhaps even more than in wartime, of managing all of the variables that must be brought together in order to carry out an effective, long-term grand strategy: no wonder that Clausewitz described it as an art, not a

science. But since it is not humanly possible to prepare for everything that may happen in the unpredictable and turbulent world of the early twenty-first century, the task is to structure the armed forces, and the economy and society upon which it rests, to be in a good position to meet contingencies. In other words, it ought, whilst seeking to fulfil its peoples' peacetime desires, to maintain a reservoir of productive and financial and technological and educational strength -- so that if a "1920s" world unfortunately turned into a "1930s" world at some point in the future, the United States would not then discover that its grand strategy was crippled by a whole series of "defence deficiencies" ³⁵ which a faltering economy could not easily correct.

NOTES

1. See p. above.

2. Apart from J. H. Elliott's essay in this collection, see G. Parker, Spain and the Netherlands 1559-1659 (London, 1979).

3. Apart from the essays by Howard and Cohen in this volume, see also P. Kennedy, Strategy and Diplomacy 1870-1945: Eight Studies (London, 1983), chapters 2 and 3.

4. See p. above.

5. I am grateful to Professor Eliot Cohen for insisting that I emphasise this point, and not "blur over" the very different conditions between war and peace in my musings about the essential nature of grand strategy. One of the intellectual -- and methodological -- difficulties is that much of the historical literature has focussed either upon wartime or upon peacetime grand strategy, rather than analyzing the continuities and discontinuities between the two.

6. See above, p. .

7. This attitude, that the West had to avoid the mistakes of the "appeasers," is brought out very clearly in E. R. May, "Lessons of the Past: The Use and Misuse of History in American Foreign Policy" (New York, 1973), pp. 50-51; and in the angry reaction to the 1961 publication of A. J. P. Taylor's The Origins of the Second World War, which was seen by some critics as being not only an apologia for Hitler, but also for Khrushchev's current policies -- see C. R. Cole, "Critics of the Taylor View of History," in E. M. Robertson (ed.), The Origins of the Second World War: Historical Interpretations (London, 1971), p. 155.

8. This debate is covered in, inter alia, G. R. Searle, The Quest for National Efficiency 1899-1914 (Oxford, 1971); P. Kennedy, The Rise of the Anglo-German Antagonism 1860-1914 (London/Boston, 1980), chapters 16-18.

9. For a sampling, see J. Fallows, National Defense (New York, 1981); R. W. DeGrasse, Military Expansion, Economic Decline (Armonk, N.Y., 1985 edn.); M. Kaldor, The Baroque Arsenal (London, 1983); R. Rosecrance, The Rise of the Trading State (New York, 1985).

10. Even without those conflicts, the European-centered world was being steadily eclipsed by the rise of the United States and Russia; but the world wars certainly helped to accelerate that trend; see G. Barraclough, An Introduction to Contemporary History (Harmondsworth, Middx., 1967), chapters 3 and 4; P. Kennedy, The Rise and Fall of the Great Powers (New York, 1987), chapters 5 and 6.

11. R. Steel. Pax Americana (Harmondsworth, Mddsx., 1970 revised edition), chapter 2; R. Dallek. "The Postwar World: Made in the USA," in S. J. Ungar, Estrangement: America and the World (New York, 1985), pp. 29-49.
12. For some statistical evidence, see Kennedy, The Rise and Fall of the Great Powers, pp. 414-15.
13. Quoted in K. Bourne, The Foreign Policy of Victorian England 1830-1902 (Oxford, 1970), p. 409.
14. One thinks here not only of Roosevelt's confident call in 1940 for an American production capacity of "Fifty Thousand Planes a Year" (see M. Sherry, The Rise of American Air Power (New Haven/London, 1987), p. 9); and of Churchill's conviction that the United States economy was like a great machine, or a "gigantic boiler," with no limits to its productive output (see Eliot Cohen's essay in this collection, and D. Reynolds, The Creation of the Anglo-American Alliance 1937-41 (London, 1981), passim.)
15. See J. Gaddis, Strategies of Containment (New York, 1982), p. 59.
16. This refers to James Joll's penetrating essay "1914: the Unspoken Assumptions," which is reproduced in H. W. Koch (ed.), The Origins of the First World War (London, 1972, 1st edition), chapter 8.

17. This is the entire first paragraph of the Commission's report, entitled Discriminate Deterrence (Washington, D.C., 1988), p. 5.
18. There are useful surveys by S. Huntington, "The U.S. -- Decline or Renewal?," Foreign Affairs, vol. 67, no. 2 (Winter 1988/89), pp. 76-96; and D. Reynolds, The Historical Journal, vol. (1989) pp.
19. For some further details of these developments, see Kennedy, Rise and Fall of the Great Powers, chapter 8.
20. See the graph in Discriminate Deterrence, p. 7 (which does not include the European Community).
21. Here, clearly, it is the Japanese-American relationship which has altered the most over that period. For example, while Japan still relies upon American military protection, it is the United States which nowadays relies upon Japanese capital flows, and upon a great deal of Japanese technology -- as Japanese conservatives proudly point out: see the text of

22. It may be worth making the obvious remark here that certain other aspects have not changed very much or at all (and therefore attract far less attention): for example, the commitment of both Republican and Democratic parties to the alliance system, the on-going public debate between the "realist" and "idealist" views of foreign policy, the problems of inter-service cooperation and the efforts to reform defense procurement.
23. How, for example, could the present size of many of the weapons-systems of the U.S. Navy be justified if the Soviet fleet was greatly reduced in numbers and operations? As this paragraph was being drafted, news arrived of the USSR's intention to scrap large numbers of its surface warships and submarines (The Wall Street Journal, 21 July, 1989, p. A12), and of its plan to reduce tank production enormously (The New York Times, 22 July, 1989, p. 6). The latter article is placed [ironically or deliberately?] next to a report on the U.S. Air Force's pleas to save funding for the B-2 ("Stealth") bomber.
24. See the analyses by L. Sullivan, Jr., "Major Defense Budget Costs," in Defense Economics for the 1990s: Resources, Strategies, and Options (The Center for Strategic and International Studies, Washington, D.C., 1989).
25. See the coverage in J.-B. Duroselle, La Decadence, 1933-1939 (Paris, 1979); and in Kennedy, The Realities behind Diplomacy (London, 1981), chapters 5 and 6.

26. As represented in the Discriminate Deterrence report, from which (p. 1) the quotations are taken.
27. The quotation is from Brodie's The Absolute Weapon. See L. Freedman, The Evolution of Nuclear Strategy (London, 1981), p. 44.
28. R. Jervis, The Illogic of American Nuclear Strategy (Ithaca, N.Y., 1984), p. 19.
29. See P. Bracken, The Command and Control of Nuclear Weapons (New Haven, CT., 1983).
30. D. C. Hendrickson, The Future of American Strategy (New York, 1989), p. 135. Professor Hendrickson outlines the systems -- manned bombers, Trident I submarines, and cruise missiles -- which fit that description.
31. See the very good analysis in B. Bond, British Military Policy Between Two World Wars (Oxford, 1980).
32. This is well covered in C. Barnett, The Collapse of British Power (London/New York, 1972), chapter IV.
33. To give but one example: neither Olivares nor his monarch, Philip IV, contemplated sharing "influence" with those parts of the Spanish-Habsburg Empire that they were pressing to assume greater financial "burdens" (see Professor Elliott's essay in this collection).

34. This, I had believed, was the simple point I was making in the (now notorious) section upon the United States in the final chapter of The Rise and Fall of The Great Powers, pp. 514-535. It is, essentially, a very conservative viewpoint, because it is about the long-term preservation of the nation's power (which may be, as noted above, an anachronistic way of thinking). Why that section infuriated American conservatives throughout 1988 and 1989 remains, therefore, a mystery to its author.
35. The phrase refers again to the early-to-mid British reassessment of their defense "deficiencies" and defense "requirements" in the light of the worsening global situation: see Barnett, Collapse of British Power, p. 342 ff.

Mr. KENNEDY. I would like to draw four points out of the two papers which I hope might help in redefining national security. The first might seem obvious, but if you look at the historical studies of grand strategies, historical grand strategy, you don't see it. And, therefore, I am going to belabor a point which I think you may feel is a truism. It is that grand strategy and national security policies are bound to have a different emphasis in peacetime than in wartime. Most of the historical studies of grand strategy have been in wartime. They have been wartime grand strategies. But that is quite different from peacetime.

A nation in wartime is like a runner in a race. It is concentrating all energies upon victory. A nation in peacetime, if you want to keep up this analogy, is like an amateur athlete in the training season. Yes, he has to keep fit and strong, but he has a lot of other things to do as well, including paying his way in the world. So, his energies and his effort have to be divided between preparing for possible contest and doing other things. I felt that one of the deficiencies of some of Pentagon documents we have seen in recent times, such as that of the Commission on an Integrated, Long-Term Strategy, is that it concentrated almost exclusively upon American military policies, in war-fighting capacities, and it tended to ignore the other tasks facing the Nation to ensure that it remained healthy, wealthy, and strong over the long term.

If you want a definition for national security, Congressman Solarz, I think that would be mine: the measures necessary to allow the Nation to stay healthy, wealthy, and strong over the long term.

My second point is that military security and economic security should not be seen as competing goals. They are things which have to go hand in hand. But as you know better than I, it is frequently ignored when we get into debates about military spending versus nonmilitary spending, as if it is an antagonistic or a "zero-sum" game. Yet, in fact, there is a very important complementarity between the country's economic competitiveness and its military power, and that is why I think it is in the interest of the military services themselves not to see this as a "zero-sum" game, but to see that measures to enhance the long-term competitiveness of the United States are in the best interest of the military services.

I came across a quotation the other day and, being a historian, I thought that I would bring it along and I would read it out. It was made by the British Minister 52 years ago, Sir Thomas Inskip. He was Minister for the Coordination of Defense. And he laid before his colleagues numerous defense expenditures.

Representative SOLARZ. 1937.

Mr. KENNEDY. 1937. And in 1937, November 1937, I think, Inskip noted that the economy was often seen as a restricting factor upon defense. In reality he argued, and here I quote him, "The maintenance of our economic stability would be more accurately described as an essential element in our defensive strength, one which can properly be regarded as a fourth arm in defense alongside the three different services, or three other arms, and without which military effort would be of no avail."

I think, Congressman Solarz, this view of the economy as a fourth arm in defense alongside the other three might be a good

way for us to think as well, because what was in Inskip's mind and the rest of his memo went on about that, was that Britain's economic staying power was part of its deterrent against aggression. But if its balance of payments was going astray, it became too dependent on foreign capital. If its currency was weakening, if its manufacturing base was eroded, if its educational system was producing too few skilled craftsmen and engineers, in other words if its economy was weakening and becoming less competitive, then its deterrent power would weaken as well. And that indeed was what was happening to the British economy, just as Inskip was drafting his memorandum.

My third point is, if we think this is a way of defining national security, then we ought to have some concern about the American position in world affairs today. I don't think it's a healthy sign that the United States is unable to pay its way in the world without borrowing from abroad. The United States has shifted from being the world's greatest creditor of nations to being on some fronts the greatest debtor. It is not healthy that the debts are an increasing share of Federal outlays. It is not healthy that we have lost economic financial leadership from New York to Tokyo. It is not healthy that we have become so reliant upon foreign engineers to come to our schools. It is not healthy that the American share of new technologies is steadily declining. It is not healthy that the skill levels of our work force on international comparisons seem so much less than those abroad. And that is a concern now. I am sorry that Admiral Crowe is gone. The people at the Pentagon that I talk to worry that the skill levels of workers servicing Japanese F-15 fighters are better than those servicing ours.

Representative SOLARZ. To some extent what you have just said is self-evident. But it would be helpful if you could elaborate and explicate on why all of these adverse trends that you have just referred to are unhealthy.

Mr. KENNEDY. I think it is unhealthy if you are concerned with the long-term security, however defined, of this country. It isn't healthy potentially if other countries—for whatever reason we may speculate about—now have significant control of American financial assets and deposits. It is unhealthy that we have become dependent every month upon Tokyo purchasing U.S. treasuries to help with the national deficit. It seems unhealthy and somewhat dangerous that there is not a weapon system now contracted by the Pentagon which doesn't have foreign parts in it, or some parts in it. This is not that I suspect that there is some sinister plot out there, but because this is a state of dependency upon other countries and other economies and other producers that the United States has in the 1980's, Congressman Solarz, which it didn't have in the 1950's or 1960's.

And if we all believe that the world is difficult to forecast, the world is a volatile place, it is unhealthy that we may in some future time, some future international incident, be dependent upon third parties to produce goods, services, finance and parts of armed equipment which we are not now producing at home. I am not a gloommonger, but I think the United States would be in a healthier position if it wasn't dependent upon other countries for these critically dependent strategic items; and if it wasn't so dependent

upon Tokyo to cover our national debt. I think you asked if there is detected "a relative decline in the United States," in your written questions. I think in these elements that I'm concerned about, the long-term underpinnings of the technological, educational, productive health of the United States as it goes toward the 21st century, there is cause for concern. And I think that there is a set of policies that I hope will be brought forward by your committee after your hearings and reflections which would see that we address some of those weaknesses.

I will stop there.

Representative SOLARZ. You stopped at a fortuitous moment because a vote is in progress. We will temporarily recess for about 10 minutes and then we will resume. I have a whole bunch of questions for each of you. Thank you very much.

[A 10-minute recess was taken.]

[The prepared statement of Mr. Kennedy follows:]

PREPARED STATEMENT OF PAUL M. KENNEDY

Mr. Chairman, members of the Committee,

I thank you for inviting me to testify before the Joint Economic Committee. I am, professionally, an historian interested in the analysis of long-term global changes, and in the interaction between a country's military power and its economic power. My reading of history suggests to me that, when a nation fails to achieve the correct balance between its military and strategic strength on the one hand, and its financial, technological and general productive strength on the other, it will run into problems; and if the nation concerned is a Great Power, with great and extensive responsibilities, then the results could be very serious indeed.

When you explained to me in your letter of invitation, the purpose of your hearings, Mr. Chairman, I was immensely encouraged. That was for two reasons. The first is that, while I do not think that the Congress should "micro-manage" [as they say] the external policies of this country, I do believe that Congress plays - and ought to play - a major role in defining overall national defense- and foreign-policy objectives, especially in a period when the United States is re-assessing its own position in the world. The second reason is that - as I read your letter - this Committee has a strong awareness that the world in which we live is changing so

swiftly, and in so many ways, that it has become a matter of some urgency to redefine our concept of what is American "national security." That definition cannot refer simply to military policies and military spending alone; it must instead refer to those sources, those underpinnings of long-term national strength, and staying-power: - that is, of manufacturing, investment, science and technology, educational skills - upon which our armed forces, and our military policies, ultimately rest.

Mr. Chairman, when I responded to your letter of invitation, I sent you two position-papers of mine. One was called "The Changing Metric of Power," which tried to assess how the global position of both the United States and the Soviet Union may have changed; in the military spheres, in the economic and technological spheres, and in the non-material sphere, since the height of the Cold War. The second was called "American Grand Strategy Today and Tomorrow," which tried to suggest the general principles upon which the long-term, peacetime Grand Strategy of the United States should be based. I do not know what status you and your staff have given to these papers, Mr. Chairman. If they could at the least be circulated to your colleagues on the Joint Economic Committee, I would be grateful; if they were seen as suitable for formal inclusion in the record, I would be more than grateful.

From these rather lengthy papers, Mr. Chairman, I would like to draw out four points, which I hope may help to shape the debate upon "redefining national security for the 1990s."

(1) The first may seem obvious, but so many scholarly and historical studies about national security ignore the point that I would like to make

it here. It is that Grand Strategy, and national security policy, is bound to have a different emphasis in peacetime, as compared with wartime. A nation in wartime is like a runner in a race - it is concentrating all its energies upon victory. A nation in peacetime is like an amateur athlete in the training season: yes, he has to keep himself fit and strong, but he also has a lot of other things to do, including paying his way in the world. His energies and effort have got to be divided, between preparing for the contest, and doing many other activities. And the most glaring deficiency, I feel, of such Pentagon-sponsored documents such as those of the "Commission for an Integrated, Long-Term Strategy" is that they have concentrated almost exclusively upon American military policies and war-fighting capacities, and tended to ignore the other-tasks-facing this nation to ensure that it remains healthy, wealthy and strong over the long term. It focussed, if you like, upon the amateur athlete's intensive training, not upon the other dimensions of his life. Grand strategy in peacetime has to integrate all aspects.

(ii) My second point would be that military security and economic security should not be seen as competing goals, but as something which goes hand in hand. This is frequently ignored when we get into debates about military spending versus non-military spending, as if it's an antagonistic, "zero-sum" game. In fact, there's an important complementarity between a country's economic competitiveness and its military power - so that it is in the interest of the military services themselves to encourage all those measures which could strengthen the national economy. This was perhaps best expressed some 52 years ago by a British minister, Sir Thomas Inskip, the Minister for the Coordination of Defence, when he laid before his

colleagues a memorandum about British defense expenditures. In that memorandum, Inskip noted that the economy was often seen as a restricting factor. In reality, he argued,

"The maintenance of our economic stability would more accurately be described as an essential element in our defensive strength; one which can properly be regarded as a fourth arm in defence (my underline), alongside the three Defence Services, without which purely military effort would be of no avail."

[Quoted from N.H. Gibbs, Grand Strategy, vol. I (London, 1976), p.284]

Viewing the economy as "the fourth arm in defence," Mr. Chairman, may be a good way for us to think as well. What was in Inskip's mind - and he went on to argue this - was that Britain's economic staying-power was part of its deterrent against aggression. But if its balance-of-payments went astray, if it became too dependent upon foreign capital, if its currency weakened, if its manufacturing base was eroded, if its educational system produced too few skilled craftsmen and engineers: in sum, if its economy was becoming less strong, its deterrent power would be weakened - and throwing lots of money at the three Armed Services wouldn't solve that problem.

(iii) My third point, Mr. Chairman, would be that if this is a potentially useful and valid way of "redefining national security," then we have, at the present time, some cause for concern about the American position. It is surely not a healthy sign that the United States is unable to pay its

way in the world without constant borrowing from abroad: it is not healthy that it switched in the course of a few years from being the world's greatest creditor-nation to being - by some measures - its greatest debtor; it is not healthy that the interest payments on the National Debt form an increasing share of Federal Government outlays; it is not healthy that New York has handed over global financial leadership to Tokyo during the 1980s; it is not healthy that American savings-ratios, and proportions of national income going into non-military research and development are so low; it is not healthy that so many of its weapons parts are now solely manufactured abroad; it is not healthy that we have become as reliant upon foreign engineers as we have upon foreign capital; it is not healthy that the American share of new-technologies, and of patents, is steadily declining; it is not healthy that the skill-levels of the workforce is so low by international standards - and that includes the skill-levels of the workforce servicing American fighter-aircraft and tanks, as compared with the workforce servicing Japanese fighter-aircraft and German tanks.

In all of these fields, Mr. Chairman, the real underpinnings of long-term American national security, seem to me less strong than they were 30 years ago. Now, economists will give you all sorts of explanations for that erosion. My point is simply that the erosion itself threatens to hurt American national security.

(iv) My fourth and final point, Mr. Chairman, is that we can do something about this erosion; and - what is more - this is a good time internationally to do things, because the United States has been given a "breathing space." The world outside is a volatile place, but it is surely

a lot less threatening militarily than it appeared at the beginning of the 1980s. The dreadful economic state of the Soviet Union, the improved political relations with Moscow, the changes occurring across the globe, ought to help the Congress and the Administration in redefining national security; it ought to help you to take steps to improve savings ratios, to reduce the deficit, to encourage research and technology, to restructure the public educational system - if need be, by a mixture of raising taxes, reducing consumption, and some trimming of defense expenditures. If this isn't a good time to improve the underpinnings of America's long-term national security, what is?

One of the questions you posed in your letter of invitation, Mr. Chairman, was: "Is the Cold War ending?" I don't know the answer to that - we will have to wait and see (which is why History has not come to an end.) What I would say is that, whether the Cold War is ending or not, this country needs an improved socio-economic, technological, and educational base to carry it through the 1990s, and to meet challenges which could be either military or non-military in nature. It is for this reason that I urge your committee forward in its effort to redefine American national security for the 1990s.

Thank you.

U.S. SHARE OF GROSS WORLD PRODUCT

Representative SOLARZ. The hearing will resume.

Do either of you know what our share of gross world product is and how that has changed over the last few decades?

Mr. KENNEDY. How do you measure it?

Mr. COOPER. It is easier to ask than to answer that question, because it depends on what exchange rate you use to make the comparisons and particularly whether you use market exchange rates or so-called purchasing power parity exchange rates, which for purposes of national security would be the more appropriate measure. Someplace between 20 and 25 percent today. Curiously enough, that is about what it was in the late 1920's late 1930's. It was higher than that in the late 1940's.

Representative SOLARZ. For understandable reasons.

Mr. COOPER. For understandable reasons. And when we use, as we all often do, our base line in the late 1940's and early 1950's for these comparisons, we should recognize that that base period was the aberrant period.

Representative SOLARZ. Professor Kennedy, how do you respond to the proposition that if our share of the gross world products today is not less than it was 60 or 70 years ago, and if the decline which took place since the end of the 1940's was due to the artificial conditions created by the devastation resulting from the Second World War which affected other countries much more than ours. This would suggest that there has not been a long-term economic decline in the United States.

Mr. KENNEDY. Two replies, Congressman Solarz. One is a technical one. A number of the people who have compared the share of gross world product that the United States has today with before the Second World War have always used a bench line year of 1938. That is a hopelessly bad year because in 1937-38 the United States went into a very significant industrial depression.

Representative SOLARZ. You mean 1937.

Mr. KENNEDY. 1937 to 1938 when all the rest of the powers were actually booming and recovering from being in a depression. If you take away 1937 and 1938, and you look at the interwar years before that, you look at 1920, the early 1930's, it is much more like 40 percent, 42 percent.

Representative SOLARZ. Mr. Cooper said in the 1920's and 1930's it was 20 and 25 percent. Do you disagree with his number?

Mr. KENNEDY. Yes, I do.

Representative SOLARZ. Where does the disagreement emanate from?

Mr. COOPER. We have to sort that out.

Representative SOLARZ. Do you think you can and give us a statement?

Mr. COOPER. I would assert flatly that the U.S. share of gross world product was not 40 percent in the 1920's.

Representative SOLARZ. Which of the two methods are you using to calculate?

Mr. COOPER. Either of the exchange rates. Now, Professor Kennedy may be talking about industrial production, that is something else. The United States accounted for about 42 percent of estimated

world manufacturing production in 1929, and about 38 percent in 1913. But gross world product, which includes agricultural production and services we never had 40 percent.

Representative SOLARZ. Whether or not we have declined in terms of our share of gross world product in the 1920's and 1930's to what it is today—

Mr. KENNEDY. I did have the second part. My second part, Congressman Solarz, would be that you can listen to us academics talking about the figures and how to measure the 1980's with 1945 or 1928 and draw your own conclusions from what we give you, but my second point would be that I can conceive of a country having an economy which is 25 percent of total world product. But it could be an entirely less-competitive-for-national-security-purposes economy and still have the same 25 percent. I can conceive of this nation becoming lawyers to the entire world and generating 25 percent of the world product, in the way that we measure it, from the legal services of the United States, but not having a defense manufacturing base. So, even within the whole I think we need to deconstruct the quality of the economy from the issue of the total size of the economy.

Representative SOLARZ. I want to pursue that in a few minutes, but let me stick for a second on the question of our decline, whether or not we have declined over the course of the last 60 or 70 years in terms of our share of gross world product. Mr. Cooper asserts that there will inevitably be a decline as we move into the 21st century because of the growth of the economies in the developing countries, assuming they get their political and social act together. They are afflicted by a series of revolutions, coups and other wars and other political instabilities. But do you share his view that a long-term decline over the next century is virtually inevitable, assuming the absence of chaos in developing countries?

Mr. KENNEDY. In the absence of the United States going to ever higher per capita products and inventiveness itself, but—

Representative SOLARZ. He does not assume that we are not moving forward absolutely.

Mr. KENNEDY. I know, and I agree with his overall prognosis. Obviously, the whole of East Asia is taking off and growing at 6 percent or 8 percent a year and the United States is currently at 1 to 2 percent a year, and as the standard of living of those millions of East Asians and elsewhere increases, clearly the relative share of the United States will shrink.

Representative SOLARZ. Is that something that we should welcome or fear? I want to preface that by saying that to the extent that there has been a clear decline in our share of gross world product since the late 1940's it could be said to be due in no small measure to the success of our policies. We deliberately sought to rebuild Japan and to facilitate the economic revival of the Federal Republic of Germany and to preserve freedom in Western Europe and to encourage political stability there. And I don't know what was said in the private deliberations of those who formulated the Marshall plan and our containment policies, but if they were wise and if they were candid among themselves, presumably somebody asked what happens if we succeed, someone would have said, well, as we look into the 1970's and 1980's and 1990's, these countries

are going to be economic competitors of ours, and our relative share of gross world product will decline.

But at least I think most Americans would probably say there was no way to win and have the Federal Republic of Germany in Western Europe rebuilt from the ashes of war without our share of gross world product declining. I think most Americans would say that was the tradeoff. Do you agree with that? And if it was a tradeoff for the last half century, would it be an equally worthy tradeoff in the next 50 years if our share of gross world product declines not because of an absolute diminution in the level of our standard of living and economic productivity, but because of relative increase in that of the poor countries? If your only concern is with the state of the global economy then this is to be welcomed because it suggests a global economy that will expand and the standard of living across the board will increase rather significantly.

If your concern is with balancing out the economic position of the United States and in the world with the extraordinary military strategic position it has in the world, then it surely is a matter of some concern. Say the United States has only 10 percent of gross world product that was carrying out all of the applications and overseas commitments that it had when it had 40 percent of world product, so large that in terms of our gross world product that it assumes the virtual inability of sustained growth in developing countries. Is there anything we really can do in terms of improving our own economy which could significantly arrest the decline in our share of gross world product as distinguished from things that we can do to make our country healthier? Or give our people a somewhat better standard of living and deal with some of the social pathologies, we have to maintain an adequate industrial infrastructure? These are things we can affect by our policies.

But if we were to do all of those things, would it have more than a marginal impact on our relative share of gross world product?

Mr. KENNEDY. I think if we did all of those things to the extent that you would like them seen to be done, I think it would, because we would produce a much better educated populace with higher per capita output. And therefore, our world share would be significantly improved.

Representative SOLARZ. Would you agree that while our world share would still decline, it would decline by less than it otherwise would?

Mr. KENNEDY. Yes.

Representative SOLARZ. What is the relative significance. Elaborate, if you will, perhaps both of you on what significance you attach, if any, to our relative share in gross world product, particularly in the context of constantly improving the economy? Is it something that we ought to be concerned about?

Mr. COOPER. I consider it inevitable, and therefore I don't get concerned about things that are inevitable. Will it require some adaptation? Yes, certainly. We have to think of different ways of doing things.

Let me take two examples. One is that as the U.S. share of gross world product declines, our contribution to international organizations can be expected to decline and with that our voice in those

international organizations can be expected to decline—perhaps not proportionately, but still decline. It remains true internationally as within countries that the paymaster has a voice that corresponds to his contribution. So, we will have less influence as our share of contributions declines.

Similarly, our contribution to the world's environmental problems, for example, to pollution or ozone depletion, or whatever it is, will diminish compared with the rest of the world. And by the same token, our ability to solve those problems without cooperation from others will decline correspondingly. So, that is one kind of variable.

Another kind of variable is that other countries become richer—and here I would distinguish between richer through population growth from richer through increases in per capita income—but as they grow in the true sense, not just through population growth—they will have more discretionary income. There is no doubt that some countries will use that discretionary income to make trouble as seen from an American perspective. We have seen examples already. The Libyas of the world, the Irans of the world, and so forth.

You will get rogue governments that have greater disposition over resources 30 years from now than is true now. And there will be areas of regional instability. You can imagine a variety of things which the United States will consider foreign policy, considerations that we have to deal with. That seems to be a consequence of the kinds of changes that we are talking about.

Representative SOLARZ. Mr. Kennedy.

Mr. KENNEDY. Yes, I think those are two fine points, and I agree with him.

THREATS TO NATIONAL SECURITY

Representative SOLARZ. Let me get into the question of definition of national security. It seems to me that there are fundamentally one or two ways that you can define it. You can define it in terms of ability to protect the country from military threats, to a territory and to our people. Another would be to define it in terms of our ability to preserve our way of life and maintain our standard of living, preserve our values as a nation. Which of these two broad approaches do you think makes more sense? And would you suggest a third alternative?

Mr. KENNEDY. I think you know from my initial remarks, that the definition of national security in peacetime has to be significantly larger than concerning military policies and military securities.

Representative SOLARZ. You would agree with that, Mr. Cooper?

Mr. COOPER. Sure. Yes.

Representative SOLARZ. Now, if we move into a post-cold-war era, one in which the Soviet Union no longer poses anything like that kind of military threat which it has for the last 40 years, you said, Mr. Kennedy, that national security requires us to be healthy, wealthy, and strong. Why would we need to remain—by strong I think you were referring to the military?

Mr. KENNEDY. Yes, the military dimension.

Representative SOLARZ. Why would we need to remain strong if we were in this period where the Soviet Union no longer posed anything like the military threat that it poses now?

Mr. KENNEDY. If the Soviet Union did not pose the kind of threat that it does now in which we heard about with Admiral Crowe earlier today, nonetheless, there are sufficient areas of the world, sufficient chances of instabilities, sufficient possibilities of challenges to American interests from the Indian Ocean to Mexico, in which U.S. Armed Forces might be asked to do something. It suggests a more flexible, rather more reactive, non-Manichean military strategy. It is not always less than a zero-sum game as the cold war has it, but it suggests that there will be a need for U.S. Armed Forces.

Representative SOLARZ. If we're not attempting to maintain an empire, the preservation of which requires the ability to eliminate distant instability to pose a challenge to the imperial presence, and if we are no longer at some point in the future engaged in an effort to contain the expansion of Soviet power. If it is not attempting to expand, then it no longer poses such a threat. What kind of instabilities abroad would you envision that might pose the kind of threat to our national security for which a military response would be appropriate?

Now, off the top of my head I can think of one which might have to do with the availability of oil in the Gulf, but other than that, what kind of instabilities can you envision which in that kind of a world it is in our interest to have the military capacity to deal with it?

Mr. KENNEDY. It is worth pointing out that no one is suggesting that the United States is an empire, but the United States has an array of military treaty obligations across the globe which give it the tasks of imperial reinforcement and policing not unlike previous empires. So, technically, legally, you are right. But unless one is also talking about a redefining or an ending of treaty relationships with Japan or Korea or Australia or Saudi Arabia or Israel, then you are talking about contingencies in U.S. obligations which have been built into the treaty.

Representative SOLARZ. But first—I don't think that it should be precluded in the 21st century, for example, if the threats which lead to these alliances no longer exist, the alliances themselves will cease to exist. And if they remain, they would remain as paper, commitments without any substantive justification.

Mr. KENNEDY. That would be my apprehension. They remain on paper as commitments rather than the dissolution of paper commitments. But, returning to the issue, it seems to me that there are quite considerable prospects of further instabilities and wars across the whole region of the Middle East. And there is a fair possibility of clashes and instabilities across East Asia as both China and Japan and India rise in power.

Representative SOLARZ. Taking your examples, we responded to the reality of North Korean aggression. We viewed it as part of a global effort on the part of communism to expand its power. The feeling was that if we didn't respond there Stalin might be emboldened to move elsewhere. In Vietnam we responded because we genuinely believed, at least most people believed at the time, that if we didn't stop the Communists in South Vietnam the other Southeast

Asian countries would fall like dominoes. Then President Johnson envisioned us hunkering down in San Diego, and I think there was a widespread feeling that our defense made sense because if we didn't stop them there we would be fighting on our own borders. That if the world context in which those challenges occurred no longer exist, if we don't view communism as being on the march or as a threat, and I quite agree with Admiral Crowe that it is premature to reach that conclusion. Tiananmen Square is evidence enough that we shouldn't count geopolitical chickens before they hatch. But if it should turn out that these trends continue to solidify and endure, then you may very well be right that there will be regional conflicts.

Do they in that kind of world pose the same kind of threat to us which in the 1950's, 1960's, and 1970's were—that required the capacity to respond?

Mr. KENNEDY. They would not have the same global dimensions. What was happening in this or that part of the world, East Asia, Asia, was linked with Communist expansionism, and if you took away the link it is clear that there would be a very hot debate in this country about what interest does the United States have in intervening in the Middle East or in East Asia. I agree then.

What I am saying, Congressman Solarz, is that we made a link between this Manichean world of the challenge between Marxism and the West; we linked that with local rivalries, regional territory rivalries. Because the cold war goes away doesn't mean that the regional territory rivalries go away. They will be around in different parts.

Representative SOLARZ. I quite agree. But if you don't link it to an expanding Communist challenge, do we have sufficient interests in those regional disputes to justify the maintenance of a military establishment capable of protecting our interests through the use of military force?

Mr. KENNEDY. In some of them I don't think that we have.

Representative SOLARZ. Which ones might be? We reasonably can agree that the Persian Gulf would be such a possibility.

Mr. KENNEDY. I think it would be impossible for the world economy to survive if oil stopped coming out of the Persian Gulf. This country is dependent upon that, and imported oil in general is a security issue, not just an economic one. But I would hazard a guess that within a few more years we really need to question whether the sizable presence of American forces in East Asia is justified by the changing circumstances. One could rethink or redefine the relationship of the security of the Koreans. That would lead in turn in some reductions in U.S. defense expenditures. We would get into a big debate about whether we wanted Japan to take over some of the guarantor obligations, of course.

Mr. COOPER. May I have a crack at that question?

Representative SOLARZ. Yes.

Mr. COOPER. It is a fundamental question that you asked and it really does go to one's philosophy of the relationship of the United States to the rest of the world. I can imagine a scenario which, to use a somewhat perjorative term, is isolationist in character. The world is out there, we don't care, as long as it doesn't threaten us directly. If there's a big war in southern South America, who

cares? If there's a big war in Central or Southern Africa, who cares? That is not my view, but I can imagine that line of argument. I would not make it. I think that the interdependencies in today's world are too extensive to make that view tenable. Some are economic. We spoke about our dependence on imports and so forth. Oil is only one of many examples.

Some of them are psychological. Let me give you two cases other than the Persian Gulf where I can imagine a show of force in the hope of preventing war. Suppose there is an adverse political development in Southeast Asia in the Philippines, which is a country that we have nurtured over the years. We are now in the 21st century. It is a functioning democracy, let's say. But it does not have a big military establishment, and U.S. bases are gone. The Philippines is under threat. Without having to face the issue squarely about whether we land forces on the Philippines, I can imagine our wanting to show force in the area with the aim of heading off trouble. Often the mere presence of force can successfully intimidate. If we have something that can counter intimidating forces, that is often useful.

The PRC has promised the United States and the world that it will not retake Taiwan by force. As we know, countries sometimes change their policies, and China is no exception. It may go back on its promises. Let's suppose we saw a major military buildup. Taiwan in the 21st century is a thriving democracy that evolved the way they're starting to evolve and so forth. We have extensive trade ties with them. You asked Admiral Crowe about the 7th Fleet. I can imagine having a fleet out there which would create ambiguity about what would happen to a sizable force that left the coast of China on its way to Taiwan. There might be a month to keep such a movement from taking place. So, my answer is yes, we would want to maintain military forces, but they would be configured substantially different from what they are today.

U.S. ECONOMIC HEALTH

Representative SOLARZ. Now, when you say that you wouldn't trade the U.S. economy for any other, presumably that includes Japan?

Mr. COOPER. That certainly includes Japan.

Representative SOLARZ. Why wouldn't you trade our economy?

Mr. COOPER. First, it has a higher real standard of living by a substantial 20 or 25 percent—

Representative SOLARZ. In terms of per capita income?

Mr. COOPER. In terms of purchasing power per capita income that is enjoyed by the man in the street, not the one taken out of statistics and translated at exchange rates.

Representative SOLARZ. Is there some figure that we can refer to for future reference which embodies that concept?

Mr. COOPER. Yes.

Representative SOLARZ. What is it called?

Mr. COOPER. It is purchasing power parity comparisons of income.

Representative SOLARZ. Such figures exist?

Mr. COOPER. Such figures exist and have been calculated mainly under the direction of Irving Kravis and Robert Summers at the University of Pennsylvania. But they are published under U.N. auspices. The most recent we have are for 1985, I believe.

Representative SOLARZ. You say we are No. 1 in the world.

Mr. COOPER. If you leave aside Brunei.

Representative SOLARZ. What are the figures calculated in dollar terms? Loaves of bread per week?

Mr. COOPER. It is calculated on an index relative to the United States, using an average of the typical consumption bundles, which differ from country to country.

Representative SOLARZ. What is ours?

Mr. COOPER. What they are interested in is the ratios. In Japan it's roughly eight-tenths of the United States.

Representative SOLARZ. They have 80 percent of the standard of living we do?

Mr. COOPER. A little less than 80 percent. The majority of well-to-do countries are in the 80's. The closest one is Canada, which is in the low 90's.

Representative SOLARZ. And how has the United States-Japanese ratio changed since they began calculating?

Mr. COOPER. The studies have become more ambitious in terms of the number of countries. For the industrial countries we have them going back to the 1950's. I am going from memory now, which is dangerous. But my guess is that Japan on this basis has moved from something like 0.3 to 0.8 of the United States over the last three decades—a very substantial reduction of the gap, but there is still a gap.

Representative SOLARZ. Do you anticipate they will eclipse us given current trends?

Mr. COOPER. Certainly not on current trends, no. The striking thing about Japan is that its manufacturing sector is extremely efficient. And, of course, they are a major exporter of manufactured goods. But practically every other sector of the Japanese economy by American standards is quite inefficient. And that is what lowers real income in Japan.

U.S. TAX BURDEN IN RELATION TO OECD

Representative SOLARZ. You made the point that the OECD tax burden for all of the other OECD countries is higher than the United States. You are talking about total taxes?

Mr. COOPER. Yes. In this country, that includes State, local, and Federal.

Representative SOLARZ. What is it for the United States compared to the others?

Mr. COOPER. The United States is at the low end at 32 percent, while Sweden is at the high end at 51 percent, something like that. Most of the Western European countries are in the high 30's or low 40's. Japan, Canada, and Switzerland are the ones that are closest to the United States, in the mid-30's.

Representative SOLARZ. Now, do you know offhand if we were to move toward the OECD in a rate say, how much more money would that make available for public expenditure and investment?

Mr. COOPER. We have a budget deficit so we want to devote some of it to closing the deficit, but we are running roughly a \$5 trillion economy. Each 1 percent of GNP is about \$50 billion dollars.

Representative SOLARZ. \$50 billion?

Mr. COOPER. \$50 billion.

Representative SOLARZ. How do you respond to the argument that it is precisely because we have the lowest tax burden of any other OECD countries that we aren't No. 1 in terms of the relative standard of living?

Mr. COOPER. We have been No. 1 for a long, long time. It goes back to a time when all of these countries' taxes were much lower, on the level of 10 percent of GNP, back in the 19th century. We have been No. 1 for several reasons. First, we had a very high ratio of resources to manpower. Second, we are a country of immigrants. Americans are people who got up and left. They had some entrepreneurial drive.

THREATS TO NATIONAL SECURITY

Representative SOLARZ. How would each of you respond to the argument that we are moving into a world where a major threat to our security would be in fact from the economic challenge posed by other countries like Japan as well as by the social problems we have in our own country, such as the emergence of an underclass, and the prevalence of crime and drugs. To put it in a very simple perspective, the people in my district when they go out at night, what they are thinking about is not the Red Army moving across Western Europe, let alone Soviet rockets landing in Times Square. They are thinking about whether they're going to be mugged.

I went home the other evening in Brooklyn to my home in Manhattan Beach. I stopped off at the New York Times at midnight and two blocks from my house I noticed a lot of people standing outside. Somebody had just been killed on the street a few minutes before I got there. The people in the neighborhood were more concerned about getting shot by muggers and raped and robbed and whatever than by the Red Army. So, do you think that these economic challenges, social problems, now constitute greater threats to national security than the threat imposed by the military of the Soviet Union and its allies?

Mr. COOPER. Let me make several observations. First, just on the side, in addition to having had the highest per capita income of most of the countries for a long time, we've had the highest homicide rate. That is a longstanding American tradition. That is not to say that it's desirable, but it goes back a long way. I don't have any special wisdom on the social questions. We spoke earlier about developing countries getting their act together politically and socially if they want to thrive economically. By the same token, any country, including the United States, could screw itself up completely by getting into severe social problems which become so distracting that everything else pales and the economy suffers from that. But I don't have enough knowledge to have a judgment on whether we are anywhere close to that kind of condition now.

On the economic question, I am one of those who is unsympathetic to the idea that U.S. national security is threatened by eco-

conomic progress in other countries. I want to be clear that I don't mean that there is no problem or that challenges are not created or the need for adaptation is not created. A lot of changes are required. Let's suppose Japan were to close this gap in real per capita income. Let's suppose further that that does not get translated into Japan becoming a major military power which at present neither Japan nor any of its neighbors want. And in my view the United States should not want it. We should not be pushing the Japanese heavily into more military spending. Those are "ifs" of the type that you were suggesting. I don't see how a rise of 20 percent in Japan's per capita income is any threat to the national security of the United States on the "ifs" that I gave.

Representative SOLARZ. Mr. Kennedy, do you agree or disagree with the 20-percent rise in national income, that the debt does not pose a threat?

Mr. KENNEDY. I think it probably would, but for a different reason. That is to say that I think the closing of the gap by Japan which in my view is likely to continue, and indeed, OECD projections of how the Japanese economy will go this year, next year, and the next few years, seems to be twice as fast as the U.S. economy. I think the closing of the gap will come about as a consequence of further very, very significant economic export growth on Japan's part, which will put a particular or significant number of American manufacturers up the wall. I don't think they realize the number of new products that the Japanese have committed themselves to over the past few years. I think the competition is intense at the manufacturing level, and at the financial level, because this country is becoming steadily more reliant upon Tokyo's state of world finance. This can be a benevolent relationship, and let us hope it is. Nobody is running around as Japan bashers in this building, but I don't think it is healthy for the United States to have their degree of dependency. That is a dependency that would come from a more successful economic growth.

AMERICAN DEPENDENCE ON FOREIGN COUNTRIES

Representative SOLARZ. You portray America becoming increasingly dependent on other countries for all sorts of critical goods and services.

Mr. KENNEDY. Yes.

Representative SOLARZ. And then you speculate that this renders us vulnerable and no longer the masters of our own fate. Now, as a historian, can you point to any examples in the past of where the dependence of a country on other countries has put them in a position not only where they were vulnerable to pressure or blackmail, but where in fact their national security was adversely affected as a result of it.

Mr. KENNEDY. Yes, I can, Congressman Solarz. I am sorry to say that history is ridden with such examples.

Representative SOLARZ. I am trying to draw you out on it.

Mr. KENNEDY. Indeed, if you looked at the story of where the center of world finance moved from and to: from Amsterdam in the 18th century to London in the 19th century, that shift was accompanied by a shift of political power and influence so that as it shift-

ed from Amsterdam to London, London had consequently a far greater influence in world affairs. But also considerable influence over the Dutch—what the Dutch could and could not do. Just the same happened as it shifted from London to New York.

Representative SOLARZ. What were the Dutch able to do and what would they have done, if their influence hadn't diminished?

Mr. KENNEDY The influence switches, from the British Government in the early part of the 18th century being very, very dependent upon the Dutch to pay for the British national debt, which was growing in the various wars that they fought, and they became reliant upon the Dutch. But in borrowing from the Dutch, they have consequential obligations, political and diplomatic treaty obligations to the Dutch. After awhile, their relationship changes, because the economic power balance changes.

In this century Great Britain over time ceded leadership of world finance to the United States, but it becomes terribly dependent upon the United States. And when, if you remember, in the lend-lease negotiations of 1941-42, this is accompanied by American requests and demands for things which the British didn't think was in their best national interest, that they had to give over.

I always find myself in a weird position here. I usually testify next to a military man who isn't interested in economics, and then I testify next to an economics expert who isn't usually interested in strategic consequences, and yet I am interested in the interaction between economic developments and strategic developments. And therefore, I must come over as, I wouldn't say paranoid, but worried about the economic trends, and the strategical consequences of economic change. I think that this committee ought to be worried about it.

There are other things that it ought to worry about as well.

NATIONAL SECURITY

Representative SOLARZ. What I'm trying to do is go beyond the assertion of these connections to an analysis of both the nature of it and its significance in the kind of role to which we seem to be moving.

There was an interesting distinction between power and influence, and we see a whole range of things where military power does not give us influence. And if we are moving away from a cold war era, if one accepts the argument that it is important for the United States to maintain as much influence as it can in the world, does it necessarily follow that that requires us to maintain a powerful military establishment in order to enhance and exercise that influence.

Mr. KENNEDY. I think it needs a less powerful one because the challenge is less substantial and less global. I think it needs a considerable military influence, but I've been arguing all along that we've been so obsessed with the military division of power that we have forgotten about the technological or the economic or the financial dimensions.

Representative SOLARZ. The Japanese have a sense of comprehensive security. Do you think that would make sense for us? Do you think it is applicable?

Mr. KENNEDY. I would approve of debating, as you are doing with this committee, what we mean by comprehensive security or national security, and I think that is useful because it actually shows us what's the link between your domestic concerns and external concerns. I don't see the country's educational level and skill level being a nonmilitary or nonstrategic feature. I think the United States with higher and enhanced educational standards, skill levels, is simultaneously stronger strategically and is better off economically.

Representative SOLARZ. This may be a distinction without a difference, but I am sure that you will agree that one can justify, including the educational system in the United States, strengthening the economic system in the United States on its own terms. That would be worth doing, even if it didn't contribute to our potential national strength.

But you're saying that in addition to the intrinsic good, these things are also necessary if we are going to remain strong.

Mr. KENNEDY. I believe so, yes.

Representative SOLARZ. And you were saying furthermore, that we need to remain strong, because even in the context of the diminished Soviet threat, given the unpredictable nature of the world in which we live, there may well be a variety of contingencies which develop which pose a potential threat to our interests which we would be in a better position to deal with either by, if necessary, the use of force or by virtue of having the option to use force which could then enhance our diplomatic ability to resolve the threat in a way compatible with our interest; is that a fair statement?

Mr. KENNEDY. That is an excellent statement, Congressman Solarz.

Representative SOLARZ. Thank you. In your works, I gather one of the main points you have made is that over the course of history these empires which have been established have come and gone to some considerable extent because of the degree to which the maintenance of the empire required increasing expenditures on what we would now call defense. That in turn diminished the resources that were necessary in order to maintain to remain economically strong and competitive. Is that a fair—

Mr. KENNEDY. The argument is a bit more complicated. I am interested in the long-term changes and the global economic balances. That is really what the last book of mine was about: how do the global balances shift, and what impacts have the shifts sent among the big powers.

Representative SOLARZ. Haven't you also made the point that the burden of that, the cost of maintaining the kind of military establishment necessary to preserve the empire resulted in diminution of resources that otherwise could have been used for economic development? And that in turn the relative declines in the economies of the empire then made it impossible of sustain the empire?

Mr. KENNEDY. But it's not that the decline begins or is caused by military spending. It is about societies which slow down, for many

of the reasons the economists and economic historians would explain slower growth rates. But as they slow, they find it is very difficult to sustain all of the military spending and commitments and obligations that they'd had in more expansionist or happier terms, if you like. Thus, how does one deal with the economy that is relatively losing ground in the world? You have to be wary of high military expenditures which are a diversion from investment.

Representative SOLARZ. When you say that the economies declined because of the level to some significant extent of the military burden of maintaining the empire?

Mr. KENNEDY. I'm saying that the military burden usually exacerbates the long-range decline which has set in for a number of other reasons.

PRESCRIPTIONS FOR NATIONAL SECURITY AND ECONOMIC HEALTH

Representative SOLARZ. I think that was in essence what I thought. And, of course, it is your thesis and you are entitled to it. But the question I am leading up to is this, we are now spending about 6 percent of our GNP on defense. Your researches indicated what the Spanish and the Dutch were spending as a share of their GNP.

Mr. KENNEDY. In peacetime. There is always the great difference between peacetime and wartime. It is pretty impossible to compute national product in the 16th century. Beginning with the British in the 19th century, it is rather easier to look at national income figures. In peacetime, they really had defense expenditure on the cheap. Their share of GNP is more like 2 percent, 2 to 3 percent.

Representative SOLARZ. Less than ours.

Mr. KENNEDY. You're not talking about a large amount. Remember, weapon systems are growing more expensive as one century goes to the other and the British didn't have at all a large army in Europe which is a considerable part of the NATO commitment of the U.S. expenditures.

Mr. COOPER. Well, Britain had largely a Navy. The British Army was really the Indian Army, and it was financed overwhelmingly in India. So, it doesn't show up on the British GNP. But the mobile forces of the British were the Indian Army.

Representative SOLARZ. You would both agree that we do have a whole series of economic and social problems in our country which we need to deal with more effectively in order to maintain a healthy society and economy. To some extent that requires resources.

Mr. Cooper, you make the point that we raise taxes to get those resources and thus our \$150 billion deficit. Do we do both simultaneously? How do we reduce the deficit which presumably we would want to do while simultaneously increasing spending on the problems that need additional resources?

Mr. COOPER. The nice thing about money is that it is infinitely divisible. I am not now addressing the politics of it, but in principle if you decided that there was an urgent public need that could be dealt with by additional funding, that is a burden of proof that has to be met in its own right. For each additional dollar in tax revenue some fraction x of the dollar could be devoted to the identified public need.

Representative SOLARZ. But it may not. In other words, let's say you raise \$50 billion in new taxes. You identify \$25 billion in needs

and you took \$25 billion for deficit reduction. In terms of the deficit you are where you were when you started.

Mr. COOPER. No, holding other things equal, you are down \$25 billion.

Representative SOLARZ. If you have \$150 billion deficit.

Mr. COOPER. You are down to \$125 billion.

Representative SOLARZ. If you then spend \$25 billion—

Mr. COOPER. No, you raise \$50 billion, but you have used half of that for deficit reduction. The spending is absorbed—half of it. So, your deficit is down from \$150 billion to \$125 billion.

Representative SOLARZ. I see.

Mr. COOPER. In subsequent years it is more than that. You've saved interest on the debt you didn't build up because of that increase in taxes. So, the improvement in the deficit goes a little bit beyond the \$25 billion.

Representative SOLARZ. If you left political considerations aside and you were asked to say what kind of resources do you think we need to really set our economy right to deal with social problems which ultimately impair our capacity to remain strong, to exert our influence in the world, what magnitude of resources are we talking about?

Mr. COOPER. I don't have the comprehensive view of all actual and potential government programs that one should have to answer that question quantitatively. There is always the prior question, it seems to me, whether more money will help. We cannot assume that just because there is a problem that throwing money at it will solve the problem. Each program has to be justified in its own right. But on the international side, we have hamstrung ourselves unnecessarily by squeezing section 150 of our budget. It does not serve the interest of U.S. foreign policy overall to have an aid budget that is not growing very much and which goes overwhelmingly to just two countries, Israel and Egypt.

I alluded before to the debt question. That is an extremely complicated question and I doubt if you want to pursue it here. But I believe it would be in the U.S. interest to deal with the debt question in a more forthright way than we have done. We have been horsing around and gradually dancing toward a solution, but we are nowhere near there yet. No doubt, those who know domestic programs a lot better than I do could identify some desirable increases in spending on the domestic side.

Representative SOLARZ. Mr. Kennedy.

Mr. KENNEDY. I just think that there is a very strong need now—when we see that domestic programs in the United States ought to be funded to make it healthy and strong—to make the United States healthy and strong, for an increase in taxes, both direct and indirect. This country, although very few believe it, is relatively speaking undertaxed. And if you look at the measure of needs, its internal needs and its external needs, I think the only honest way to deal with that is to increase taxes.

I have to say as a personal matter, after the remarkable transformation of my income because of my best seller, that I am just amazed that so little is taken away, 28 percent tax cut over whatever it is, one hundred odd thousand dollars, after everything I can deduct.

Representative SOLARZ. Without asking you to name precisely, if you were to establish your own priorities for which of our domestic problems we should deal with, what are of importance in terms of the needs to maintain a healthy and strong society, what would each of your priorities be?

Mr. KENNEDY. You're leaving aside the question of the deficit.

Representative SOLARZ. Right.

Mr. KENNEDY. Mine would be in two areas. One is in education, especially Head Start. I think it is absolutely fundamental to get the educational levels up and raised, and early. The second would be infrastructure, because I think we have a crumbling infrastructure, and that has more beneficial kickback into the economy than employment and other terms. It helps the country's long term—

Representative SOLARZ. How does a good infrastructure—we are talking now about roads, bridges, and the like. How does that deal with what I gather is the increasingly high tech character of the economic challenge?

Mr. KENNEDY. Well, because an economy is a very complex thing as Mr. Cooper will tell us, and there are different subparts to it. I think just to believe that this country can concentrate on high tech and not on basics; I think that is short-term blindness. Investment in infrastructure has economic kickbacks and benefits as well.

Mr. COOPER. Let me give you an example of something that we know how to do. It just takes resources to do it, and it would improve the economy to do it: it concerns airports. It is technically possible—the military does it and it is done at Heathrow in London—to land planes blind with complete safety, electronically. I may be out of date, but as far as I know, no U.S. airports have the equipment to do that. Airport delays are costly to the economy, to anybody—reliability is an extremely important feature of a modern economy. We could increase safety and increase reliability of airports by installing this equipment. But, of course, it is expensive. London has it and uses it routinely.

AMERICAN TAXATION

Representative SOLARZ. Why do you think we have a lower tax burden than the other OECD countries? Is there a historic factor? Is there something about the American experience, the American ethos which has historically produced a lower level of taxation ever since the Boston Tea Party?

Mr. COOPER. Yes—at least since the 1930's and the revolution in social democracy. Most countries moved much further than the United States did. We moved somewhat with the introduction of Social Security and unemployment compensation. Most countries went much further than the United States with social programs, publicly financed. The bulk of the difference with the European countries is in those publicly financed social programs, including health care.

Mr. KENNEDY. This country began with a tax revolt. That is the reason for it. I think the second reason, if you like for greater tolerance levels in continental Europe for higher taxes is the middle classes that they get things back. They get free university tuition. They get free health care. So, although you are saying my good-

ness, 45 percent of my income is going out in taxes, you are actually getting things back. And I suspect many Americans feel that they are getting increased taxes but they—

Mr. COOPER. Waste and abuse.

U.S. SPENDING VERSUS OECD COUNTRIES

Representative SOLARZ. What are the social benefits that the European countries provide in national strength, and how would you compare the level of spending in the other OECD countries to that in the United States? Not on social programs, but on things like infrastructure and the like.

Mr. KENNEDY. I see it when I go to countries like West Germany or Switzerland, which incidentally I think has the highest per capita standard of living in the world under OECD countries. And you might say it is small and not significant, but it has consistently had No. 1 ranking on those ratings. Also involved here are Sweden and other countries. Well, first of all you see much lower crime rates. You see a much improved infrastructure. You see it in much higher levels of education. And then you see the spinoffs which occur when you are getting some of your defense systems repaired. If you go and talk to the U.S. Army in Germany and ask about the differences and the skill levels of German technicians preparing Leopard tanks versus American technicians preparing American tanks. Or look at the comparisons done between the skill maintenance levels of the Japanese on F-15's and Americans on F-15's. You actually see a very significant and directly enhanced performance, let alone the fact of the residual strength in the country with a large number of trained engineers and scientists in the skilled work force.

Representative SOLARZ. This goes a bit afield, but take the question of education. Clearly this is critical. The President seems to take the position that we are spending more on education per capita than any other country, and therefore the problems are not a problem of lack of resources. It has to do with other things. How do you respond to that?

Mr. KENNEDY. I would like a breakdown on the figures of whether he was talking about the entire spending on education, including private research universities and everything else like that, or whether he was talking about the Federal Government. I would immediately concede that reforming American public education is not simply a matter of cash, because there are things such as nationally tested examination systems in subjects across the field, which every other advanced industrial country has and we don't really have. And once you have nationally tested exams, like in Germany, you would have a significant transformation in what was taught. But it's also true and clearly evident to anybody's eyes that education of the inner city needs massive enhancement, as does Head Start. And I think one has to say that money is not the only way to solve it, but money can help to solve it along with other things.

Mr. COOPER. On practically any category of expenditure that you want to choose, the United States spends more per capita than practically any other country. The reason is we have a higher per capita income than any other country. We spend much more on

medical care per capita. We spend more on education, assuming he is right, with the total including the private sector, and so forth. We also pay higher wages than most countries. So, part of this higher per capita spending reflects higher wages. So one has to make adjustments for the fact that the input in terms of manpower is not as high as the expenditure figures.

Because of different income levels among countries, a higher level of spending per capita may take place, and still involve a lower share of total income. Shares rather than levels reflect relative priorities. The key question though on something like education, if I may say so, is not whether we are doing more or less than other countries. We should try to learn from other countries. But we should ask whether there is more that we can usefully do in this country that will have a payoff in the future? How much does it cost? How does one bring improvement about? And so forth.

CONCLUSION

Representative SOLARZ. Let me ask one final question. What would you think of the idea at the end of these hearings which one would hope to gather a lot of suggestions about how to deal with many of the problems. In subsequent panels we will focus on education, on competitiveness, and so on and so forth. If we kind of combine the various suggestions that were made that seem to make sense and put them into a kind of omnibus national security act based on the notion that we are going to deal with the emerging challenges to our national security as the military threat to the country diminishes, and present them as a whole cluster of problems we are going to have to deal with. Then putting them together, that would presume it has a fairly high price tag on it. But that would presumably have to be covered by some increase in revenues. Do you think that there would be any value in sort of packaging it into one omnibus bill and relating it to our national security requirements? Or is it better you think to deal with each of these things separately as I have tended to do until now?

Mr. COOPER. You are a much better judge of the political tactics of such a proposal. Whether you get more mileage in terms of getting the programs that you think are desirable through by packaging them in that way. I have no judgment on that. I see one advantage. There is an educational advantage in doing it, and it goes back to the thesis that underlies these hearings. Americans I think tend to identify national security with military spending. And in that respect, our closest allies, our foreign friends look somewhat askance at us because they've always thought that we reacted too quickly by moving the hand to the holster as opposed to using economic diplomacy or political diplomacy. The educational advantage of such packaging, regardless of how it comes out, is to draw attention to the fact that national security should be considered in a broader way and has many dimensions to it, not just the military dimension.

Mr. KENNEDY. I agree. By doing it, you would obviously publicize what you are trying to do better, because we'd say, "What on Earth does Head Start have to do with national security?" And

when they asked that question, someone might even make the link between Head Start and national security.

Representative SOLARZ. I cannot help but think of what happened in the 1950's when the Soviets sent up Sputnik and legislation which would not have been passed otherwise was adopted because of its perceived linkage to national defense. I have a feeling that national security may be a more compelling consideration to most Americans than national goodness or national decency.

But in any case, this has been very helpful and it has been very beneficial. I know it has taken a lot of time and I appreciate your patience and even more your contribution to this hearing. I think we are off to a good start and we may get back to you from time to time as the hearings proceed for any suggestions.

The committee will reconvene next week on Wednesday, November 15, at 9:30 in the morning when we will hear from Assistant Secretary of Defense Henry Rowen and three more DOD and military officials, Lawrence Korb, Admiral La Rocque, and Jim Odom. The hearing is adjourned.

[Whereupon, at 11:40 a.m., the committee adjourned, subject to the call of the Chair.]

AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

WEDNESDAY, NOVEMBER 15, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 9:30 a.m., in room 2359, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding.

Present: Representatives Solarz and Upton.

Also present: Richard F Kaufman, general counsel.

Representative SOLARZ. The hearing will come to order.

This morning we continue hearings on the subject of American economic power as it relates to redefining national security for the 1990's. What I must say to you all, all of the witnesses, from the outset, is that the hearing will recess at approximately 10:35 a.m., and then reconvene at 10 minutes to 12.

As you may know, Lech Walesa will be addressing a joint session of Congress this morning. And since I was involved in this, I have been asked to be part of the welcoming group meeting him.

And so in the interest of time, I would like to submit my opening statement for the record.

[The written opening statement of Representative Solarz follows:]

WRITTEN OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

We began this series of hearings last week by reviewing some of the kaleidoscopic changes in global affairs over the past few years that call upon us to rethink our concept of American national security. As if to underline the rapidity and momentous nature of these changes, the first breaches in the infamous Berlin Wall appeared on the opening day of our hearings. This miraculous development provides all the more reason for our inquiry into the meaning of national security as we move into a post-Cold War era.

For many years, we have defined national security largely in terms of our military capabilities. But now events around the world and new forces in the economic and technological spheres challenge many of the basic assumptions underlying our national security policy. Today and in the future, security may be determined as much by what happens in the schoolroom and the work place as in the defense plant and on the battlefield.

Substantial progress has been made in the arms control negotiations on both strategic and conventional forces, and we may be on the verge of major breakthroughs in the START and CFE talks. Indeed, just yesterday, we read in the New York Times that U.S. officials have concluded that Soviet defense spending has been significantly reduced this year. If this report is accurate, no longer can it be said that there is no hard evidence that Gorbachev is carrying out his promise to reduce and restructure the Soviet military.

Sweeping political and economic transformations in Eastern Europe have set off what appears to be a chain reaction of fundamental reform. The forces of parliamentary democracy and market economics are clearly in the ascendancy. Already Poland has a non-communist government. Hungary will soon hold free

therefore like you to limit your opening remarks to 10 minutes so that we can use the balance of your time for questions and answers. Mr. Rowen, you may proceed.

* * * * *

Our next witnesses are well known for lifetimes of military and civilian service in national security affairs. Before assuming his present position at the Brookings Institution, Lawrence J. Korb was an Assistant Secretary of Defense from 1981 through 1985. He has been Dean of the Graduate School of Public and International Affairs at the University of Pittsburgh, Professor of Management at the Naval War College, and Associate Professor of Government at the U.S. Coast Guard Academy. He is the author of numerous books, monographs, and articles on national security issues.

Admiral Gene Robert La Rocque was commander of a task group in the 6th Fleet, a member of the faculty at the Naval War College, and Director of the Inter-American Defense College before retiring from the Navy in 1972. He is the founder and current Director of the Center for Defense Information.

General William E. Odom was a senior member of the National Security Council staff and military assistant to the President's National Security Adviser, Zbigniew Brzezinski, during the Carter administration. From 1981 to 1985, he served as the Army's Deputy Assistant and then Assistant Chief of Staff for Intelligence. At the time of his retirement from the Army in 1988, he was Director of the National Security Agency. He is presently Director of National Security Studies at the Hudson Institute.

Gentlemen, you may each take 10 minutes for an oral presentation, following which we will have a question and answer period. As I stated earlier, I will recess the hearing in order to attend Mr. Walesa's address, and then return so we can complete your testimony. Please proceed.

Representative SOLARZ. Now, if we could hear our first witness this morning, Henry S. Rowen, Assistant Secretary of Defense for International Security Affairs.

**STATEMENT OF HENRY S. ROWEN, ASSISTANT SECRETARY OF
DEFENSE FOR INTERNATIONAL SECURITY AFFAIRS**

Mr. ROWEN. Thank you, Congressman.

Ladies and gentlemen, it is a pleasure to be with you today and to share with you some thoughts on what the future holds for us. There is no need to point out to the members of this panel that the international environment is experiencing radical change, most dramatically in the U.S.S.R. and Eastern Europe, although China has also had some surprises for us recently.

I want to emphasize the magnitude of the surprises that we are experiencing. Who predicted 5 years ago that the the Soviet Union would have a dynamic leader like Gorbachev, a budding parliament, more open political debate, and a high profile diplomatic campaign to improve relations with the West?

Who predicted 1 year ago that a Solidarity-led government would be in power in Poland? Or that the Communist Party of Hungary would vote to disestablish itself? Or that the winds of change would blow so hard in East Germany?

Although many of these changes are likely to be enduring while others might be reversed, I think we can all agree that the Soviet empire is finally crumbling and the Soviet Union itself is undergoing remarkable stresses and internal changes.

The fundamental force driving these phenomena is the evident failure of the centrally planned economies to perform. Their performance has fallen far behind those in the West and even the rapidly developing countries of East Asia. Their governments have claimed continued, albeit slowing, growth rates but their national income statistics are a farce. In reality, these are poor countries, and one of them in particular, the Soviet Union, also has a vast and costly military establishment.

Because the economic failure of these centrally planned economies is the root cause of these developments, I want to dwell on this topic a bit. Every competent observer in the West has known that systems that deny individual property rights, that deny suppliers and consumers the ability to determine prices in the market, that enshrine power in bureaucratic entities are doomed to inefficiency. What has only recently become evident to all is just how very inefficient these systems are.

For example, it is widely believed that the Soviet GNP is about one-half that of the United States, which implies a per capita GNP of something under 50 percent of that of ours—or that of West Germany or others among the richest nations. Incidentally, this standard assessment has put the Soviet GNP ahead of that economic powerhouse, Japan, if the latter's is calculated on a purchasing power parity basis, as it should be.

How does one square this belief with the common observation that the Soviet Union economy is at the level of a Third World country; or the comments of emigres that their per capita con-

sumption, already low, declined after the mid-1970's? In short, one cannot.

Unfortunately, many analyses have relied too heavily on Soviet statistics, a source which is, on the whole, farcical. It now seems most likely that Soviet per capita GNP is no more than 30 percent of the U.S. level, and perhaps 25 or even 20 percent as much as ours. On this more realistic estimate, the Soviet GNP is more comparable to that of West Germany; that is, about one-fourth that of the United States, and nowhere near the much larger Japanese one.

Among other things, such a reassessment of the Soviet economy puts the Soviet burden of defense in clearer perspective. It used to be said in the Brezhnev years that military spending was not a "burden." It was a central "good" of that polity. There was much truth in that observation.

But it now seems that the true burden of defense is substantially greater than what was widely estimated. This, by the way, has long been the view of many Soviet emigres, people whose observations on that system were often ignored and scorned.

The combination of miserable overall performance and a heavy military burden is bringing about major changes in the Soviet military posture. Some are unilateral—the withdrawal of units from Eastern Europe, the Chinese border, and Afghanistan; overall cuts in military manpower; and a cut in tank production. More cuts are promised.

But we also need to note that Soviet weapons production in the aggregate continues at a high level. Taken together with the cuts in manpower and in ground force units, evidently their aim is to have a military establishment which is "leaner and meaner." By this I mean a military establishment which is smaller, but technologically advanced. Whether the support of such a force is sustainable under current Soviet economic circumstances remains to be seen.

Moreover, when Pandora's box was opened after seven decades of secrecy and repression, as Mr. Gorbachev has done, some pretty strange creatures emerged. We now see virtual guerrilla war between Armenia and Azerbaijan, serious troubles in Georgia, Moldavia, and Uzbekistan, and virtual declarations of independence by the Baltic peoples.

None of these is doing the economy any good; nor are the strikes by Russian workers. "Perestroika," however much it is needed, is producing increasing, not decreasing, dissatisfaction on the part of the population in the short run.

I have said little about political developments in the Soviet empire, but perhaps what I have said is sufficient to suggest the enormous uncertainties we face. While basic trends are clearly favorable, there are potential dangers in this situation.

The Soviet Union remains a formidable military—and specifically nuclear—power, and that fact should keep us sober as we contemplate these great developments.

A relevant historical analogy—not an exact one, as analogies never are—is Khrushchev's large military cuts in the 1950's which were accompanied by the creation of the strategic rocket force, which was followed then by Brezhnev's sustained military buildup.

All of this implies that developments in the Soviet Union and its empire are fraught with uncertainty; so it seems to me that the main counsel is one of prudence. Prudence in this context, I believe, means being open and supportive to the positive aspects of Gorbachev's initiatives, while keeping one's powder dry.

Despite the fascinating developments in Eastern Europe have for all of us, I want now to address the situation in East Asia. It is important to note that political and arms developments that dominate Europe are not present in Asia.

In Asia, the cultures, economies, and geopolitical structures are more diversified. The prospects for regional instabilities are significant—independent of what happens in the Soviet Union. Rivalries, such as that on the Korean Peninsula, China-Vietnam, Vietnam-Thailand, among others, have a potential for conflict. Thus, American interests in Asia are more complex than the military containment of a major unfriendly power as in Europe.

This is not to depreciate the importance of Soviet military power in East Asia. Not only is the Soviet Pacific fleet a strong one, but so is Soviet land-based air. But the relative Soviet weakness in this theater, as seen from Moscow, may have contributed quite a lot to the sense of the leadership there that it is losing the competition with the non-Communist world and needs to change radically.

As we view the scene in East Asia, we see other salient features. One is the militarily powerful and unpredictable regime in North Korea. There is merit in the observation that if war comes it is most likely to come from that quarter than any other.

Another key country is China, which has abruptly altered course and become politically repressive and economically regressive. This is most distressing to all of us who celebrated both the economic and political progress China had made up through last June 4. We can only hope that the recent setback is but a short interruption on the path toward democracy and market capitalism.

The economic prospects in the market capitalist countries of this region are well known. Japan's case is spectacular, and following in its wake are those of South Korea and Taiwan. These successes have much to do with their current and, even more, potential military power.

For instance, it can be debated whether South Korea's GNP is six or eight times that of the North. This leads some Americans to question the continued presence of American forces in South Korea. They neglect the fact that the South faces not only the North, but also the Soviet Union and China, both of which entered into the Korean war in support of North Korea. They also ignore the nuclear technology program of the North which may be aimed at producing nuclear weapons.

Also very much to the point concerning the American role in the region is its relatively low cost to us in committed forces. This is not to maintain that no changes are possible in the U.S. posture if threats recede, or as allied capabilities grow, but that this is not a region whose defense puts a great burden on the American taxpayers.

The Eastern Mediterranean-Persian Gulf-Southwest Asia region also presents a scene which is complex and by no means dominated by the prospect of Soviet intervention. For example, our recent and

successful "reflagging" operation in the Persian Gulf was not oriented against the Soviet Union.

This said, it is important not to forget that Soviet forces were directly involved in the Egyptian-Israeli conflict in 1970, threatened to become involved in 1973, invaded Afghanistan in 1979, are established in South Yemen, and have loomed over Iran throughout.

They have also been principal arms supplier to many of the most troublesome states in the region. For example, Moscow is pouring arms and supplies to the Kabul regime at an extraordinary rate.

But what I want to emphasize here is the importance of American interests that are not directly associated with the Soviet Union. The fate of Israel is obvious. So also should be, but often today is forgotten, the importance of oil from the Persian Gulf region. This point deserves further comment.

At the peak of the oil disruptions of the 1970's, disruptions that inflicted great damage on the United States and other non-Communist economies, the non-Communist world was receiving about 40 percent of its oil from this region. As a result of the runup in the price of oil, by 1985 this dependency had fallen to a much more tolerable 20 percent.

With the subsequent collapse in the price of oil, this dependency is now about 30 percent, and heading up. By the mid-1990's, it seems likely to exceed the earlier 40 percent level. Herein lies the potential for, once again, great economic disruption.

I would not argue that American military power is sufficient to prevent such loss, nor that the United States alone should be the supplier of power. But I do argue that our power, together with that of our allies, may be necessary to deter or cope with further disruptions.

We can also observe the consequences of Stalinist economic systems in the Caribbean and Central America, in Cuba and Nicaragua. Both of these are economic basket cases sustained by Soviet subsidies. The widespread decay and collapse of these systems elsewhere in the world gives hope that these, too, might soon bite the dust. In any case, Castro, Ortega, and associates must be very nervous these days.

I underscore the role of Soviet subventions in keeping these regimes going, as well as those in Kabul, in various parts of Africa, and elsewhere, at a time when the Soviet economy is in desperate straits and its leadership is increasingly looking to the West for help. There is both a need and a prospect for shrinking the supply of resources that keep these impoverished oligarchies going.

Ladies and gentlemen, the winds of change are blowing hard, and there is a new spirit of hope. However, we must not forget a fundamental factor that has brought about these hopeful trends: engaged U.S. policy, anchored by principles and commitments to friends and allies, and backed by national will and resources.

We now see, understandably, a prospect of reduced threats and reduced spending on defense, but if we reflect on how we got to this favorable condition and are serious about sustaining peace and continuing to protect American interests, we must think twice before we allow the conclusion to be drawn by friends, adversaries, and potential foes, that we have declared victory and have withdrawn from the arena.

Thank you, Representative SOLARZ. I will try to answer any questions that you may have.

Representative SOLARZ. Thank you, Mr. Rowen.

With the recent events in Eastern Europe, we are more than ever interested in terms of what the future may hold. In these hearings, we are attempting to look into the future. For example, after CFE and START, whether we can talk in terms of a START-II and a CFE-II.

Mr. ROWEN. Congressman, that is only one part of what we are looking at. From my testimony, you see statements about China and Korea. I am not really prepared to testify in any detail on START and CFE, let alone START-II and CFE-II.

Representative SOLARZ. Well, what questions did you think that you were addressing this morning before this committee?

Mr. ROWEN. The general question of the economy as it relates to national security.

Representative SOLARZ. Did you receive the questions from the committee staff? They were sent to you.

Mr. ROWEN. No, I did not receive any questions, Congressman.

Representative SOLARZ. Well, that is unfortunate. But let's see if we can pursue some areas of inquiry.

Imports are a factor. We had testimony last week from people who listed a whole number of things, and presumably materials that we do not produce in our own country.

Mr. ROWEN. Are you suggesting that we should have a completely—

Representative SOLARZ. I am not suggesting. First of all, I am trying to find out the facts.

Mr. ROWEN. I am interested in the facts, too, and I do not have a lot of them with me.

Representative SOLARZ. Do you think you can get them?

Mr. ROWEN. I will try, because it is important.

Representative SOLARZ. We will resubmit to you the questions which were originally sent over to the Department. We will submit some supplementary questions as well. It would be very much appreciated if you could give us some answers to the questions.

Mr. ROWEN. We will do the best we can. I am sorry; I do not know where the glitch was.

Let me make one point. In the future you postulate, even with the START agreement—it is important to recognize that the Soviet Union is going to have many, many thousands of nuclear weapons, soon. You would not suggest they are going to go away.

Representative SOLARZ. Of course. And I do not suggest that we unilaterally disarm. There are people talking about the concept of minimal nuclear deterrence. Could we prudently go to 10 percent, say, of our current nuclear arsenal, if the Soviet Union did likewise, and at equal levels? Is something like that compatible with our national security?

Mr. ROWEN. Good question.

Representative SOLARZ. What is the answer?

Mr. ROWEN. I do not know.

Representative SOLARZ. You mean, the Department has not studied this at all?

Mr. ROWEN. I do not know if it has studied it. Look, you are asking me right now, and I cannot give you an answer on this. You know, in general, substantially higher numbers than that level have been judged to be needed. But under the circumstances, if they were drastically different, maybe they should be reassessed.

Representative SOLARZ. What we are trying to do in these hearings is to look at a little bit into the future.

Mr. ROWEN. That is a good idea.

Representative SOLARZ. And at the profound transformations that are taking place—the nature of the world in which we live, in view of the extent to which the assumptions on which we have based our national security policies for almost half a century are now coming into question.

It seems appropriate to begin examining those assumptions, and to look into what the implications for our national security would be if these present trends continue. We have had a series of policies which appear to have clearly worked. They preserved the peace, and they facilitated the transformations that are now taking place. And it took courage, commitment, wisdom, and resolve to maintain those policies.

I think it is a tribute to the leadership of this country of both parties, and to the American people, that they were prepared to sustain a deep and heavy burden of major commitment for defense and containment over the course of several decades, something which a lot of people probably would not have thought would have been possible in the wake of the Second World War.

But now that the world is beginning to change, the old policies may no longer be needed, and indeed might well be counterproductive. That is not to suggest that in the new world in which we are entering there may not be new challenges and new complexities and new threats, but that is exactly what we are trying to do; to get some questions answered, rather than to take refuge in the hypothetical questions and say that we have to wait and see.

Nobody is suggesting impetuosity, unilateral disarmament, or the like. But I think Congress does have the right to know of the thinking of key agencies within the administration.

I do not want to take you to task for this, because you work in a large bureaucracy over there. But I certainly hope there are people in the Pentagon who are looking at these questions, thinking about them, so that we can respond in an appropriate way to these changing realities.

In any case, I want to thank you very much for coming. We will submit questions to you.

Mr. ROWEN. We will get back to you.

Representative SOLARZ. And if you can get back to us as quickly as possible with full answers, to the extent that you can.

Mr. ROWEN. To the extent we can. Some of these questions I can tell right now we are not going to give you very definitive answers, because a lot of it has happened so fast.

Representative SOLARZ. If you have not looked at it yet, and you cannot answer, just say that.

Mr. ROWEN. Sure.

Representative SOLARZ. And we can draw such conclusions as are necessary. I appreciate your willingness to come.

Mr. Rowen, you can go, if you wish.

Mr. ROWEN. Thank you.

Representative SOLARZ. I would like to give the other witnesses a chance.

[The following questions and answers were subsequently supplied for the record:]

RESPONSES OF HENRY S. ROWEN TO WRITTEN QUESTIONS



INTERNATIONAL
SECURITY AFFAIRS

THE ASSISTANT SECRETARY OF DEFENSE

WASHINGTON, D. C. 20301-2400

0 8 DEC 1989

In Reply Refer to:
I-03050/89

Congressman Stephen J. Solarz
The Joint Economic Committee
SD-01 Dirksen Building
Washington, D.C. 20510

Dear Mr. Congressman:

As promised in my testimony before the Joint Economic Committee on November 15th, I am submitting my response to the questions which had been provided to the Office of the Secretary of Defense by your office.

I appreciated the opportunity to address the Committee, and hope that the enclosed answers offer some insights into our military needs and requirements for the 1990's.

Sincerely,

A handwritten signature in cursive script that reads "Henry S. Rowen".

Henry S. Rowen

Attachments

Question 1. What factors will determine U.S. military requirements for the 1990's and how will the factors differ from those of the recent past?--

Answer:

The changes taking place in Eastern Europe and, potentially more reversible, in the Soviet Union promise to change U.S. military requirements fundamentally from the past. Most basic is the sudden shift of several of the non-Soviet members of the Warsaw Pact from states ruled by communist parties to states with a pluralistic political character. This fact makes it highly improbable that the people and governments of these societies would follow Moscow - if the rulers there were so to act - in an attack on Western Europe.

This shift has two salient security implications: one is that the effective strength of the Warsaw Pact forces facing NATO is smaller than in the past. The other is that Soviet forces would have to operate across many hundreds of kilometers of territory occupied by people who are hostile to their presence. In short, NATO faces a much weakened Warsaw Pact and therefore has more warning time from a Soviet decision to attack.

In addition, the economic basis of Soviet military strength is substantially smaller than has usually been estimated in the West. This did not prevent the creation of a huge military machine, but it now appears doubtful that the Soviet Union can carry on the military competition with the West at the current level. This is the underlying basis for Gorbachev's announced unilateral cuts in military forces and spending, and also for the keen interest being exhibited by the Soviets in major force reductions in CFE.

There, however, a cautionary note is in order. Most of the promised cuts are yet to come and it would not be improbable if political developments in the Soviet Union were to take an unforeseen direction. Recent developments in China show how suddenly such a reversal can occur. At the very least, we need to keep in mind that the Soviet Union possesses, and in all likelihood will continue to possess, many thousands of nuclear weapons capable of inflicting vast devastation.

Another factor is the future of Soviet support for the members of its empire in the Third World. There has been some withdrawals (notably Afghanistan) and cutbacks (notably Angola) but Soviet support for others remains high. Were the Soviet Union to sharply reduce support throughout the Third World this would be reflected in lower U.S. military requirements.

Another changing factor is the rapid diffusion of military technologies in the Third World. The last few years has seen the acquisition - and use - of ballistic missiles and chemical agents on a substantial scale. More familiar is the diffusion of nuclear technologies capable of being incorporated in nuclear weapons. Looking ahead, we will have to pay increasing attention to the threats faced by such weapons against our friends, our forces abroad and against the continental United States.

Another changing factor is the growth of other market economies, especially the rapid growth of those in East Asia. This growth in their economies implies a parallel growth in their military potential. In fact, our allies in East Asia have been increasing their military spending at a high rate (although not their shares of GNP dedicated to defense). This growth implies that they will be able to - and that they will - take more of a leading role in their defense with the U.S. moving to more of a supporting role.

A final factor, an enduring one, is our interest in political stability in certain key parts of the world. This is so in the Persian Gulf, a growing source for our oil consumption, and it is also true in Central America, in the Western Pacific and East Asia.

Question 2: From a military perspective, how do such factors as the strength of and prospects for the US economy relative to our major trading partners affect our national security?

Answer:

An inadequate - but popular - answer is that if the economies of our major trading partners (all of whom are our allies) grow relative to that of the United States, they can do more to defend our collective security interests and we can do less. This answer would be correct if all other factors were constant but they are not likely to be.

This answer leaves out two key elements: one is what we perceive our national interests to be and the other is what threats to these interests we perceive. We might independently see our security interests as being greater or smaller, whether or not our economic strength is growing relative to that of trading partners/allies. Similarly we might see threats to security interests as growing or receding. If we see them as growing, we might decide to spend more on defense independently of our economic strength relative to our allies. - And vice versa.

At the present time and in the prospective future, it can be plausibly argued that our interests in, for example, a democratic Europe or Northeast Asia are as strong as ever but that the threats to these interests are receding. This implies that we play more of a supporting role and less of a leading role in their defense. Our trading partners/allies might or might not agree with our assessment regarding these threats, in which case they would not join us in changing their military spending.

Question 3: From a military perspective, what is the significance of the state of our educational system and how it compares with those of other industrial nations?

Answer:

The education of our nation's elementary, secondary and postsecondary students is of paramount importance to the Department of Defense. The nation's economic strength is vital to our military strength and both rest on a well-educated population.

There is ample evidence of a decline in education performance. This is amply demonstrated in the decline in test scores and in international comparison of educational achievement. Recent surveys of employers indicate wide dissatisfaction with the educational quality of high school graduates and confirm much of the general criticism that has been made of American education. Not only does this decline undermine our economic facilities it lowers the quality of people available for military service.

From an international perspective, the situation is gloomy. Three studies have been conducted during the 1980s that compare the education attainment of American students to their counterparts in other countries. In 1982, a 24-country study of 8th and 12th graders' mathematics skills was conducted. At the 8th grade level, the United States was ranked just below average; if third-world, developing countries were omitted from the analysis, we ranked near the bottom. In studying 12th graders' algebra, geometry and calculus skills, the United States was at the bottom.

In 1985, a 25-country study of science skills for 5th grade, 9th grade, and advanced high school students was conducted. At the 5th grade level, the United States was ranked average. At the 9th grade level, we ranked somewhat lower than average. At the advanced high school level, the United States was as the bottom.

In 1988, a six-country pre-test of 13 year-olds' mathematics and science skills was completed. The United States ranked on the bottom of the mathematics area, and next to the bottom for science. Given that this test was developed in the United States for American youth and that this study was age-controlled (in grade level studies, age can vary), the results were very disappointing.

The Department of Defense expects that current problems with American education will only be exacerbated by the increased pace of technological changes. As the Services field increasingly sophisticated weapon systems, their requirements for specialists and technicians are expected to grow. Also, the number of young people of enlistment age has decreased steadily since 1979 and will continue to do so until 1996. Thus, in addition to facing the prospect of finding "better" enlistees, the military also will need to attract an increasing percentage of the youth population.

Faced with this dismal situation the Department of Defense is doing its best to cope. It has built strong recruitment programs and anticipates continuing to acquire high school graduates of average or above average aptitude. However, in the long run, we must seek recruits who possess the skills necessary to perform the jobs of the future. These skills include: (1) reasoning and problem solving; (2) reading; (3) writing; (4) oral communication; (5) computation; and (6) computer and science literacy. In addition, enlistees will need additional non-cognitive characteristics to succeed on the job, including positive attitudes, good work habits, and interpersonal skills. These are important skills and attributes to strive for if new recruits are to become successful and contributing military members, and to subsequently return to civilian life and participate fully in the civic and cultural life of our country.

In short, the state of our educational performance can only leave one gloomy about a key aspect of our future national strength.

QUESTION 4: From a military perspective, what is the significance of the state of the industrial base and the physical infrastructure?

ANSWER:

Obviously, a strong industrial, technological, and physical infrastructure is essential to the national security of any country. Ensuring a healthy and competitive industrial base depends foremost on economic fundamentals, including policies that are conducive to investment and growth.

The adequacy of the industrial base from a defense perspective depends on the future defense needs that are postulated. One criterion is the ability to field advanced weapons. Here we do well on the whole although it is evident that other nations, both adversaries and especially allies, are catching up. Indeed, the technologies available to Western Europe and Japan on the whole are comparable to ours.

Another criterion is a possible dependence on foreign sources for critical components or materials that might be denied to us in a war. No strong case has been made that we have now any such general vulnerability although it might develop in the future if we are not careful. A key question here is what countries would we regard as potentially vulnerable or incapable of providing supplies and under what circumstances?

A third criterion is the adequacy of our industrial base to support a military mobilization. More relevant is the ability to sustain a smaller build up on the scale of that in the Korean War. There are grounds for concern for such a case, especially if further defense reductions cause many companies to exit the defense market. Moreover, many military technologies are sufficiently complex that the lead time to warm up production to a much higher level could be many months.

Most important is having a strong and productive economy. This entails increased attention to distortions in our economy that work against efficiency and growth of productivity. That is our best guarantee of a strong industrial base.

Question 5: Is the international drug traffic and its effects on some of our allies and our own population a threat to our national security?

Answer:

There should be no doubt that the large scale consumption of drugs poses a serious threat to the welfare, economy, and national security of the United States. None does more damage to our national values and institutions. None destroys more American lives. While most international threats are potential, the damage and violence caused by the drug trade are actual and pervasive.

Our drug control strategy includes programs for attacking international production and trafficking. These programs, directed at the foreign sources of illegal drugs, support the interlocked concepts of deterrence and incapacitation, and enhance domestic criminal justice efforts by carrying the attack on multinational trafficking organizations beyond our borders. They are aimed at disrupting the drug trade from cultivation to arrival in the U.S., rather than merely confronting it on our streets.

International efforts allow us to enlist the resources of other nations in this battle. Our country cannot alone assume the responsibility or cost of combatting drugs. Nor can we expect to counter this threat without supporting, and being supported by, other nations. A cornerstone of our international drug policy must be a determination to work with and motivate other countries to engage their own resources and efforts against trafficking.

Despite these international efforts addressed to the supply aspect of drugs, it is evident that any solution to this scourge is not to be found here. The supply sources are too varied and uncontrollable. If a solution is to be found it must be predominantly on the demand for drugs.

Question 6

Is the Cold War in the process of ending, or is it likely to end in the near future?

Answer:

The answer depends on what one means by the "Cold War." If it is seen as a condition of heightened political and incipient military conflict, the cold war on this definition has waxed and waned several times since 1945. In contrast, if it is seen as a fundamental factor in the relationship between communist and pluralist democratic systems, it has been a continuing feature all along.

We believe that the tensions between the United States and the Soviet Union between the end of World War II and the 1980s were the result of Soviet policies and ambitions. For over forty years, successive US administrations have encouraged Moscow to conduct its foreign policy according to accepted international norms, to abstain from bullying or seeking to subvert its neighbors, and to use peaceful means to resolve international disputes. We are gratified and encouraged that the Soviets are finally beginning to take these steps.

The United States has never viewed the USSR -- or any country -- as the natural enemy of the United States. The source of US-Soviet tensions, and the forty years of East-West competition in general, was Soviet Communist ideology, the ideology which arrogated to Moscow the right to dominate its neighbors, to export revolution, and to pair huge military forces with a proclaimed historical mission to eradicate Western capitalism and democracy. Indeed, Communist countries have a well documented tendency to be highly militarized and expansionist.

We obviously welcome the reduction of tensions with Moscow, its acceptance of political freedom in Eastern Europe (among other things meaning the end of the Brezhnev Doctrine), and its military reductions. These promise to reduce the likelihood of conflict and will enable us to reduce our defense expenditures, possibly substantially. But unless and until the Communist Party of the Soviet Union gives up its "leading role," as have those of Hungary, Poland and East Germany, and the country becomes politically pluralistic, there will be a continued possibility of regression to hostility. Until this happens, in an important sense, the "Cold War" will not have ended.

Question 7: Assuming the Cold War ends, how would our military requirements in the 1990's differ from those of the 1980's?

Answer:

Much depends on what one means by the "Cold War" and its "ending." We have experienced several times since 1945, periods of detente in which it was proclaimed that the Cold War was over. This happened in the late 1950 after Stalin's death, in the mid 1960's, in the early 1970's, and now again. Each of the preceding "endings" was followed by a period of heightened tension triggered by some hostile Soviet action.

It may be that the depth of the crisis of the Soviet system today will produce an extended period of reduced military threat. The political changes in Eastern Europe will unquestionably affect the military balance in Europe. These changes alone will reduce our military requirements. If the Soviet Union scales back its forces as called for in the CPE or unilaterally, this would further lower the U.S. military requirements for the 1990's. However, if the character of the regime remains basically unchanged, the possibility of a reversal of Soviet policy and the emergence of new dangers will remain ever present. On this definition of the Cold War, we would have enjoyed a period of lower danger and reduced military requirements, but we could hardly believe that it had "ended." We believe that the Soviets now aim to transform their massive military into a smaller but highly modern fighting force. This, however, only reduces, not eliminates, the Soviet military threat.

It is doubtful that the Cold War could truly end without the Soviet leadership abandoning its Marxist-Leninist character and become a pluralistic political entity. If this happens, then the world will truly be transformed and American military requirements will probably be much lower permanently (or as close to permanently as we can imagine today). This will still leave us with concerns about stability in certain regions of key interest to us: Europe, Central America, the Western Pacific, the oil-rich Persian Gulf. It will also leave us concerned with threats created by the proliferation of weapons of mass destruction.

Question 8: What major threat to U.S. national security do you foresee for the next decade?

Answer:

At the present, the long-time major threat to our security, that posed by the Soviet Union, seems to have receded. This may turn out to be true, and it may persist. However, one can not rule out the Soviet Union as a threat to our national security as long as Moscow maintains a Marxist-Leninist regime with a large military establishment and a powerful nuclear arsenal. The prospect and permanency of democratic, market-oriented reforms in the Soviet Union remains uncertain. Rising dissatisfaction over economic failure, which could produce internal unrest, might lead to an upheaval and a stiffening of policies in both domestic and foreign affairs. In any case, our ability to forecast a change in long-term developments in the Soviet empire is poor.

However, it is important to note that recent political developments in Eastern Europe have significantly altered the threat from the Warsaw Pact. It effectively can no longer be regarded as an alliance fully capable of offensive actions, and that condition is unlikely to be reversed.

While we are encouraged by the current positive development in the Soviet Union and Eastern Europe, we must not forget the recent policy reversal in China. The PRC's propensity for domestic policy back-tracking might carry over into its foreign affairs arena, which might again position China as a threat to our interests in the Pacific and East Asia. At least, this reversal should make us diffident about assertions concerning the Soviet Union.

We also have many security interests independent of the Soviet Union, such as a stable, democratic Europe and Japan. In other regions, they include the security of Israel, a stable and economically developing Central and South America, our continual access to the Persian Gulf, and others. These interests are exposed to actual and potential dangers other than from the Soviet Union. Many Third World nations now deploy large forces, equipped with advanced generations of tanks, aircraft and other conventional weapons. Some also possess long-range ballistic missiles and capabilities for chemical, biological and nuclear weapons. Any outbreak of war will threaten our strategic interest in promoting peace, democracy, and economic development around the world.

A major threat to our security is arms proliferation -- the spreading of chemical, biological, or nuclear weapons, and advanced missile technology. The proliferation of advanced arms technologies in the 1990's will differ from what we have experienced in the 1980's in three key aspects: First, the rate of diffusion of these technologies is rapid. Second, the civilian-military duality issue will be more intense. And third,

we will have to counter, not just control, what spreads. The proliferation of nuclear, chemical, and missile-delivered weapons has already progressed to a dangerous level. By the year 2000, many more nations would have chemical weapons, like those used in the Iran-Iraq war. And a dozen developing countries would have a ballistic missile delivery capability.

Representative SOLARZ. General Odom, Mr. Korb, and Admiral La Rocque, before you came in I made the point that we are having a joint session with Lech Walesa. And having played a role in facilitating that invitation, and having been asked to join the escort committee, I very much want to be there.

So what I propose, if this is acceptable to you, is that we will go until 10:30. I would like to give each of you 10 minutes. And then we can reconvene about 10 to 12 for questions. Would you be available then? I figure it would last about an hour for the questions.

If that is convenient, I would like to do that. If not, we can reschedule this.

Admiral LA ROCQUE. I would be delighted.

Mr. KORB. Likewise.

Representative SOLARZ. I am sure we can get a TV where you can watch Walesa. This is only about the third or fourth time in American history that a nonhead of state has addressed a joint session. Lafayette was one of them; a Hungarian patriot, Kashu, was another; and Winston Churchill was the third after World War II. Madam Chiang spoke also, so I guess Walesa would be the fourth.

But in any case, General Odom, why don't we start with you?

STATEMENT OF LT. GEN. WILLIAM E. ODOM, U.S. ARMY, RETIRED, AND DIRECTOR, NATIONAL SECURITIES STUDIES, THE HUDSON INSTITUTE

General ODOM. I am pleased to have this opportunity to discuss the changing definition of our military requirements in light of the economic realities, because I think the military factors must be based on changing political realities.

I would like to begin with somewhat of a historical overview, and then look at the implications for the economy.

A basic ambivalence strikes me as having beset our national approach to security throughout the 19th and the first half of the 20th century. In the 20th century, we somewhat reluctantly decided to assert our military power abroad, to defend and expand democracy elsewhere in the world. In the 19th century, we were expanding it here.

We entered both wars very reluctantly, belatedly, and only after 1945 did we reach a solid public consensus that we should commit major resources and military forces to defend democracy in Europe and Asia.

Many observers today suggest that we reverse our orientation in this regard, gradually withdrawing our military commitments abroad. Many who argue that we can withdraw are at the same time the most vocal about abuse of human rights and liberties of other countries.

I would like to cite Professor Huntington's observations that the historical record shows that liberty abroad tends to expand when American power has been asserted in the world, and it has suffered when American power has not. The incompatibility of the calls for lessening military commitments and the demands for expansion of liberty abroad is a reality that we should not overlook.

Now, let me leave that point, and talk about the requirement for military power that we need to defend for freedom in the 1990's. As

to an end of the cold war, certainly this will change our military requirements. But I do not think a declining cold war will necessarily make them go away. Let me explain that by a historical reflection.

George Kennan said at the 50th anniversary of the Russian Revolution that he considered it the major political event of this century. I wonder if, upon reflection, he still believes that. The Russian Revolution was really a consequence of World War I, and World War I was about the emergence of German power in Europe. The war merely proved that the European leaders could not manage that emergence peacefully; they did not even face up to it realistically at Versailles, and therefore we had to fight the Second World War.

Now, the United States and Japan showed the same incompetence in managing the emergency of Japanese power as what occurred in Europe. In retrospect, I think the two major developments of the century affecting liberal democracies have been the emergence of German and Japanese power. Soviet power has only been the third, and less significant, development, a spinoff from World War I. We would not likely have had Soviet power had there not been a World War I and the defeat of the Russian regime and the overthrow of the Czar. In fact, Lenin himself did not believe there was the remotest possibility of coming to power there, had the war not taken place.

We have been able to check the expansionist character of Soviet power without a world war for two reasons. First, we did not retreat into isolation as we did before the 1940's, and, second, we brought Japan and a large part of Germany into the camp of liberal democracies, creating an East-West correlation of forces highly adverse for the Soviet Union.

In some ways, the cold war has been a positive factor. It has kept the United States engaged in Germany and Japan, and it has allowed the rooting of democratic political systems in those societies. Moreover, can we imagine adequate trust among the members of the European Community to achieve what they have today without the dominating presence of U.S. military power in NATO? Can we imagine peace and prosperity in Northeast Asia without U.S. Forces in Japan? Can we imagine that EC 92 will succeed if U.S. power begins to decline in NATO?

Let's assume the cold war is ending, and we draw down significantly. Given that dynamic, particularly in Eastern Germany, a political realignment in Central Europe is almost certain. Will that realignment be an expansion of liberal democracy to the East within the Atlantic Alliance context, or will it bring the breakup of the Atlantic Alliance and the drift of a strong Germany into a middle position?

The former outcome will require skill and creative U.S. diplomacy backed by considerable military power in Europe. The latter will eventually create new requirements for U.S. military power in a more difficult and complex diplomatic situation later on.

The historical record seems to me to reflect a single, central reality. When the United States and Germany have strong and healthy relations, war can be prevented in Europe. When the

United States and Germany drift apart, war becomes more probable.

The same is true in the Far East. When Japan and the United States have strong military ties, peace in the region is likely. When we and the Japanese drift apart, the prospects for peace decline.

Now, in both regions of the world, whether the cold war ends or does not, we will continue to have significant military requirements. Our military presence in these regions underpins liberal democracy in the two great emerging powers, German and Japan. We cannot be certain what course politics will take in these states if we are not still committed and engaged in mutual security arrangements.

Before the cold war ends, therefore, we must already have asserted a creative leadership in defining new roles for the old alliance structures, roles that keep us engaged and also keep a strong sense of security in these regions.

To put our task another way, let us compare the decade ahead with the decade of 1945 to 1955, when we built a remarkable international security order that you just described eloquently a few moments earlier. In the 1990's we may see just as much change as we did in the earlier decade, but we will be confronting a greater leadership challenge in transforming old alliance structures to deal with new political realities.

If we fail, if the Atlantic Alliance or the Atlantic Community fragments and falls apart, the earlier decades of the next century will present us with major political and military problems.

By focusing our attention for national security wholly on the end of the cold war, we can easily overlook the dynamics within the Western international security order. Those dynamics could bring progress in the European Economic Community to a halt; they could damage the global economy which has provided Western prosperity unparalleled in history.

It does not follow that ending the cold war will allow us to continue to enjoy the economic progress that we have seen for several decades in the trilateral region. Politics creates the house for economics, and a Western political house drifting into divided parts is bound to have a deleterious impact on economics.

I will skip over this part. Let me turn to some more narrow military factors in the 1990's, in an international context.

First, nuclear weapons I think will decline in importance on the East-West front. They will not lose all of their importance, but I do not think that they will be central. Nuclear weapons in the Third World strike me as likely to gain in significance. Proliferation will continue, and the small nuclear powers will not have the constraints on using them that the superpowers do. The small nuclear states will not have enough weapons to create a nuclear winter and threaten all of mankind; thus, the psychological barrier to their use will be weaker.

Conventional forces, I think, will grow in their importance, both in East-West relations and in North-South relations. Southwest Asia and the Middle East will remain military problems for us, and we will find Soviet influence still active there.

How conventional forces will play in Europe and East Asia is very difficult to predict. I do not see how it would be wise either

militarily or politically to withdraw our forces from Germany until we are sure of how the politics of East Germany have played out and until considerable progress is made on the German question, favorable progress.

The CFE negotiations in this regard can carry real dangers for us. We cannot beat the Soviet Union in an arms control race. If we end up with few or no forces in Germany, while they retain significant forces in East Germany, the German question may be resolved in a way most undesirable for the West.

The same is true in Korea. They not only help protect from North Korean attack, but they also make it easier for Japan and Korea to repress old animosities. Our military forces in Asia give Japan reason not to rearm; and if Japan did, I do not know what that would do to the balance in the area, but it would make a number of countries nervous.

Central America strikes me as an additional region where we would need military power. These states are not Vietnam. The major difference is about 8,000 miles of ocean. The internal economic and political developments in these states have direct and discernable impacts, not only on our security but on our domestic politics. Immigration is only the most conspicuous.

We have defense commitments in the Philippines and Thailand that do not strike me as being as critical as some of these others. But I think it would not be wise to drop them hastily.

There are two military-related issues that seem urgent to me as we try to cope with these changes. First, the burden-sharing issue. I think it is terribly troublesome. I hope we will find innovative and ad hoc ways that are different and more comprehensive than those we have tried in the past.

Second, the changing technical aspects of modern military realities tend to be overlooked when we discuss reallocating military responsibility among the allies. The idea that there could be a European defense within the modern conditions of intelligence and communications strikes me as not practical or reasonable.

There are some technical realities that make it ridiculous to talk about a British solution, or a German solution, or a French solution in Western Europe. Technologies make the only approach to an Atlantic solution. No single state has a geographic scale to deal effectively with those kinds of things.

Let me end by saying that I think there are a number of other factors, particularly in the economic area, which you raised earlier with Secretary Rowen. The changing nature of manufacturing and new divisions of labor in the world economy seems to me to require a rethinking of the traditional ways of military procurement and wartime mobilization.

I do not think we can go back to economic autarky, the kind we enjoyed in World War II. I think we can and must adapt our ways of making available adequate economic power for our military requirements.

Thank you, sir. I am sorry I went over the time limit.
Representative SOLARZ. Thank you very much.

[The prepared statement of General Odom follows:]

PREPARED STATEMENT OF LT. GEN. WILLIAM E. ODOM

Mr. Chairman, I am pleased to have this opportunity to share some thoughts with this committee on redefining our national security requirements for the 1990s in light of the realities of American economic power. Because the military factors in national security must be based on changing political and military realities in the world, I shall begin with a review of them and then draw some implications for what we might want to do differently in our own defense establishment and alliance commitments in light of contemporary economic realities.

The issues, as you have raised them, focus on change. To understand change today, we must keep in view a historical backdrop reminding us of the record of past change and how we dealt with it. We will see the implications of change in the 1990s more clearly against the historical record.

A basic ambivalence has beset our approach to national security throughout this century. In the 19th century, we were concerned almost exclusively with securing democracy at home and expanding it on the North American continent. In the 20th century, we somewhat reluctantly decided to assert our military

power abroad to defend and expand democracy elsewhere in the world. We entered both world wars belatedly, not eagerly. Only after 1945 did we reach a solid public consensus that we should commit major resources and military forces to defend democracy in Europe and Asia.

Some observers today seem to suggest that we reverse our orientation in this regard again, gradually withdrawing our military commitments abroad. I believe that much of the testimony you will or have heard on international economic realities and the inextricable entanglement of our economic life with the rest of the world demonstrates that we do not have the choice for the 1990s that we had in 1919 when we rejected President Wilson's call for us to remain committed to the maintenance of peace in Europe. Many who argue that we can withdraw are at the same time the most vocal about the abuse of human rights and liberty in other countries. As Professor Huntington has pointed out in his book, American Politics: The Promise of Disharmony, the historical record shows that liberty abroad tends to expand when America has exerted its power in the world; and it has suffered when we have not. The incompatibility of calls for lessening military commitments and demands for the expansion of liberty abroad is a reality we should not overlook.

Let me leave this point by suggesting that both from the viewpoint of economics and political values, America will

require significant military power and a willingness to use that power in the defense of freedom throughout the 1990s. This is not to say that the military requirements will remain unchanged in the 1990s, but it is to say that they will not be small whether the Cold War ends or persists.

An end to the Cold War will certainly change our military requirements, but that will not make them go away. An answer to the Cold War question alone is a wholly inadequate basis for anticipating our changing military requirements. A look at the historical backdrop can help us explain why the Cold War is not the only basis for determining our military requirements.

George Kennan, on the 50th anniversary of the Russian Revolution, observed that it is the major political event of the century. I wonder if on reflection he still believes that. The Russian Revolution was a consequence of World War I, and World War I was about the emergence of German power in Europe. The war merely proved that European leaders -- British, French, German, and Russian -- could not manage that emergence peacefully. They did not even face up to it realistically at Versailles, and they had to fight a second world war because they did not.

The United States and Japan showed the same ineptness in managing the rise of Japanese power in East Asia. The result was war.

In retrospect, the two major developments of the century affecting the security of the liberal democracies have been German and Japanese power. Soviet power has been a third and less significant development. We have been able to deal with the expansionist character of Soviet power without a world war for two reasons. First, we did not retreat into isolation in the late 1940s. Second, we brought Japan and a large part of Germany into our camp as liberal democracies, creating an East-West correlation of forces highly adverse for the Soviet Union.

In some ways the Cold War has been a positive factor. It has kept the U.S. engaged in Japan and Germany, and it has allowed the rooting of democratic political systems in those dynamic societies. It has prompted us to build and support alliance systems of unparalleled success in maintaining security. Those alliances, however, have done more than maintain the peace. Especially the Atlantic Alliance has provided a political atmosphere of trust among former adversaries in Europe that accounts in great part for the present progress in the European Community's moves toward greater integration. Can we imagine adequate trust among the member states of the European Community to achieve what they have without the dominating presence of U.S. military power in NATO? Can we imagine peace and economic prosperity in Northeast Asia without U.S. forces in both Japan and Korea?

Let us assume that the Cold War is ending and that we drawdown significantly our presence in NATO. Given the dynamic forces of change in East Europe, particularly in East Germany, a political realignment in Central Europe is certain. Will that realignment be the expansion of liberal democracy to the East within an Atlantic Alliance context? Or will it bring the breakup of the Atlantic Alliance and drift of a strong Germany into a middle position? The former outcome will require skill and creative U.S. diplomacy backed by considerable military power in Europe. The latter will eventually create new requirements for U.S. military power in a more difficult and complex diplomatic context.

The historical record reflects a simple but central reality. When the U.S. and Germany have strong and healthy relations, war can be prevented in Europe. When the U.S. and Germany drift apart, war becomes more probable.

The same is true in the Far East. When Japan and the U.S. have strong military ties, peace in the region is likely. When we and the Japanese drift apart, the prospects for peace are likely to decline.

In both regions of the world, whether the Cold War ends or does not, we will continue to have significant military requirements. Our military presence in these regions underpins liberal democracy in the two emerging great powers, Germany and

Japan. We cannot be certain what course politics will take in these states if we are not still committed and engaged in mutual security arrangements.

Before the Cold War ends, therefore, we must have already asserted creative leadership in defining new roles for the old alliance structures, roles that keep us engaged and also keep a strong sense of security in these regions.

To put our task another way, let us compare the decade ahead with the decade of 1945-55 when we built a remarkable international security order that facilitated the peaceful emergence of German and Japanese power. In the 1990s, we may see just as much change, and we will confront perhaps a greater leadership challenge in transforming the old alliance structures to deal with new realities. If we fail, and if the Atlantic Community fragments and falls apart, the early decades of the next century will present us with major political and military problems.

By focusing our attention for national security wholly on the end of the Cold War, we can easily overlook the dynamics within the Western international security order. Those dynamics could bring progress in the European Community to a halt. They could damage the global economy which has provided Western prosperity unparalleled in history. It does not follow that ending the Cold War will allow us to continue to enjoy the

economic progress that we have seen for several decades in the trilateral region. Politics create the house for economics, and a Western political house drifting into divided parts is bound to have deleterious effects on economics.

I have assumed in the foregoing analysis that the Cold War is coming to an end. But is that a sound assumption? Soviet power is clearly in decline. It is not likely to reassert itself on a dynamic economic base in the coming decades. I personally would like to see a systemic transformation in East Europe and the Soviet Union to liberal democracy and a prosperous market economy. As a student of political development, however, looking at the record of transformations in other authoritarian states, I am forced to conclude that others, with much lower hurdles to cross, have failed. That is not encouraging for the Soviet case. Among the many problems Moscow faces, none is greater than the multinational character of the Soviet state. Unless Moscow can preside over a peaceful de-colonialization of several of the national republics, it is difficult to see how liberal democracy can emerge anywhere in the Soviet Union. The prospects are somewhat greater in East Europe because the political context for national autonomy already exists in the form of borders and governments. East Germany, of course, is an exception.

There are many other problems for Moscow after it deals successfully with the nationality problem. Other authoritarian

systems that have succeeded with liberalization already had market economies. None had to disestablish a command economy as the Soviet Union must do. Altering political and work attitudes, re-training a labor force, inflation, an inexorable short-term decline in economic performances are a few of the problems involved. All of these, including the nationality problem, could throw the Soviet Union into chaos, ethnic violence, and civil war. That outcome is more likely than a successful transition to liberal democracy. Both political disorders and distressing economic conditions are likely to make many of the strongest supporters of Gorbachev and perestroika have second thoughts about continuing reform although avoiding it means returning to a strong dictatorship. Some of them are already suggesting that only a dictatorship can carry through such reforms.

Some Western observers insist that the U.S. do more to help Moscow with perestroika. Unfortunately, there is much less that we can do than such observers seem to realize. We are having trouble inducing democracy in El Salvador where we provide about \$73 per capita aid each year. If we cannot achieve a transformation from political oppression and civil war to stability and democracy in such a small country, how are we to do it in the larger and much more difficult case of the Soviet Union? We need to be a great deal more modest about what we can do to help the Soviet Union.

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While I do not suggest that we take a strong public or diplomatic posture of pessimism about change in the Soviet Union, as we assess our national security requirements, we should not assume that the end of the Cold War is an inexorable fact. It is likely to drag on in various levels of intensity for the whole of the 1990s.

In other words, the Soviet military problem for our security will not disappear in the 1990s although it is likely to become much smaller. As it does, all the problems I have mentioned for the maintenance of the Atlantic Community and our alliances in East Asia are bound to sharpen.

Let me now turn to more narrow military factors in the 1990s as they appear in the dynamic international context I have described.

First, nuclear weapons will decline in their role in our security on the East-West front. They will not lose all their importance, but they will not be central. Nuclear weapons in the Third World strike me as likely to gain in significance. Proliferation will continue, and the small nuclear powers will not have the constraints on using them that the superpowers do. The small nuclear states will not have enough weapons to create a nuclear winter and threaten all of mankind. Thus the psychological barrier to their use will be much lower.

Second, conventional forces will grow in their importance both for East-West relations and North-South relations. Southwest Asia and the Middle East will remain military problems for us, and we will find Soviet influence still active there.

How conventional forces will play in Europe and East Asia is more difficult to forecast. I do not see how it can be wise either militarily or politically to withdraw our forces from Germany until we are sure of how the politics of East Germany play out and considerable favorable progress is made on the German question. The CFE negotiations in this regard carry real dangers for us. We cannot beat the Soviet Union in a conventional arms control race. If we end up with few or no forces in Germany while they retain significant forces in East Germany, the German question may be resolved in a way most undesirable for the West.

The same is true for our forces in Korea. They not only help prevent an attack from North Korea but they make it easier for Japan and Korea to repress old animosities. Our military forces in Asia give Japan reason not to rearm. If Japan does develop considerable military power, the political impact on China and other countries in Asia and the South Pacific is likely to be undesirable.

Central America strikes me as the major additional region where U.S. military power is important to maintain. The

Caribbean littoral states are not Vietnam. A major difference, only the first of many, is about eight thousand miles of ocean. The internal economic and political developments in these states have direct and discernible impacts not only on our security but also on our domestic politics. Emigration is the most conspicuous.

While we have defense commitments to the Philippines and Thailand, they do not strike me as so critical as the ones I have already addressed. We should not necessarily drop them, but they are much less vital.

The big issue from a military viewpoint is whether we intend to stay forward deployed on the Eurasian rimland. Much of the public debate today seems to assume that we will not. For all of the reasons I have mentioned above, it would certainly be unwise for us to withdraw in the course of the 1990s. The factors that have sparked the public debate are more anticipatory than real today, and their realization will not occur in the next three or four years, perhaps not in the 1990s.

Two military-related issues strike me as urgent as we try to cope with the changing political and economic realities.

First, burdensharing for defense with our allies will become more troublesome. We have defined it too narrowly in the past. We need to try some new approaches within a wider definition.

No universally applicable panacea is going to be found. We must approach the problem with ad hoc and particularized solutions, country by country, case by case. For example, if Spain, Greece, and Turkey insist on charging us for base rights, perhaps the richer NATO states should pay for these bases, not the U.S. Perhaps an East Asia security fund could be created into which Japan, Korea, and perhaps other states might put monies annually for the regional security infrastructure of U.S. forces. Such ideas will not be greeted enthusiastically everywhere, but some progress on less dramatic ones should be attainable, eventually leading to larger ones as mutual understanding of their importance is better appreciated.

Some changing technical aspects of modern military realities tend to be overlooked when we discuss reallocating military responsibilities among the allies. Modern communications and technical intelligence means adequate to manage even limited conventional conflicts require global deployment and cutting edge technology. None of the allies have the means, either geographically or technologically, to provide modern C3I for themselves alone. We have become much more interdependent militarily in this regard than is generally realized. A French or German or British strategy for the defense of Europe is nonsense in a technical sense. Even an American strategy without West European complementary involvement is nonsense. Just as the changed global economy means no modern industrial state can go it alone, so it is true that such states cannot

stand alone militarily in many of the C3I dimensions of modern war.

Second, the nature of military economics is changing. I have in mind three things under this topic. First, in the event of a major war requiring industrial mobilization, we will not be able to approach it from an autarkic economic base as we did in World War II. The changed nature of modern industry, production processes, and the international division of industry mean that we will have to take a different approach. Not much good thinking about new approaches has appeared, but it is clear that we will not be able to surge the production of F-16s, M-1 tanks, and AH-64 helicopters in the event of war. Second, we will not have all the components available within the United States to produce these weapons. Both of these realities call for some dramatic breaks with traditional mobilization planning in the Pentagon.

Third, the nature of manpower requirements is changing. Just as modern industry is demanding a more educated and skilled work force, the military with modern weaponry must have a better educated manpower base, not just in the enlisted ranks but also in the officer ranks. Most of our best universities and colleges do not provide even a trickle of officer candidates. We moved ROTC out of those places during and after the Vietnam War, and the new officer recruiting base is denied an

appropriate share of the best college graduates even for a year or two of service.

Let me end my comments with three points about the enormous work the Department of Defense must do to meet our changing national security requirements in the 1990s.

First, the JCS and the Secretary of Defense must have much greater central control over force development and determination of weapons requirements for missions. Too many desirable trade-offs across the services are possible in theory but not in practice today because of the weakness of the JCS and stronger interests of the services.

Second, the R&D and acquisition bureaucracies of the services were appropriate for an earlier age and for a different industrial base. Even if the JCS gains the power to make better choices of kinds of weapons and forces for missions, the present acquisition system will continue to obstruct and delay efficient R&D and acquisition of those weapons. There is little need for much of the R&D now done by the services. Private sector commercial products are already available and of better quality. Yet the acquisition bureaucracies cannot justify much of their size and activity if commercial products are to be exploited. Here the Congress is essential in making such a change. Parochial interests will seek Congressional support

against change. Thus it will require skilled leadership within the Congress if we are to make progress on this front.

Third, we need to re-think and change our manpower system. The more privileged social strata in our society must make more of the military sacrifices. This is not only politically healthy for a democracy, it is also imperative if we are to have the manpower, officers and enlisted personnel, who can exploit fully modern military weaponry.

These three changes would make the military budget less onerous to the economy, even complement it. The size of our military budget is not the problem. Our economy could manage a much larger allocation to defense according to at least two former Presidential economic advisors whom I heard comment recently on the matter. What our economy should not have to endure, however, is the present level of inefficiency in the use of that budget. Moreover, the additional military power that great efficiency can create will be all the more essential for maintaining an international security order that permits us to continue to enjoy the fruits of our dynamic and changing world economy. Our national security outlays are not a loss to that global economy. They are essential to the climate that sustains it. A strong national security is one of the prerequisites for a strong global economy, and in turn, the power of that economic order makes it easier to pay the national security costs. The

two are inextricably intertwined. We can neither abandon nor depreciate one in pursuit of the other. Too frequently we talk as if we can.

Representative SOLARZ. Mr. Korb, please proceed.

STATEMENT OF LAWRENCE J. KORB, CENTER FOR PUBLIC POLICY EDUCATION, THE BROOKINGS INSTITUTION

Mr. KORB. It is a privilege to be here. I think these hearings mark an excellent transition between the containment and the postcontainment eras for the United States.

Let me begin by going back to where our commitment to a large standing military started. It was in the administration of President Eisenhower. After the Korean war, he decided not to demobilize as we had after previous wars. He recognized that in light of Soviet expansionist tendencies we needed to maintain a large standing military in peacetime. However, Eisenhower also recognized there were limits to the amount that the United States could spend on military preparedness without in fact undermining national security. In his view, national security quite correctly meant balancing the great equation; that is, keeping both military strength and economic strength robust.

During the Eisenhower administration, this nation spent on average in today's dollars about \$208 billion a year for defense. Eisenhower was not even moved by the near hysteria which gripped the country in 1957 after the Soviet launch of Sputnik, to unbalance the great equation. In fact, his response was not to launch a crash program to close the fictitious "missile gap," but to launch the Federal Government into the education area. Instead of accelerating the Polaris and Minuteman missile programs, he had the National Defense Education Act enacted, and warned his country about the dangers of the military-industrial complex.

Eisenhower also understood that this nation had to have its strategy, military organization, and resources in balance if we were to get the most out of our defense budget. Thus, Eisenhower decided was not to match the huge conventional forces of the Soviets and the Chinese and the East Europeans, but to rely for defense primarily on the less expensive but more powerful strategic deterrent. He also tried to accelerate that real process of unification within the Defense Department.

In the 1980's, this Nation forgot the admonitions of Eisenhower. During this decade, we spent an average of \$300 billion in defense. This huge expenditure, coupled with tax reductions and the growth of entitlement programs, has added over \$2 trillion to our national debt, hopelessly unbalancing the great equation. In fact, if present trends continue, interest on the national debt will be higher than defense spending by 1995. To make matters worse, the huge outlay for defense was not guided by a coherent military strategy, nor did the Reagan administration impose effective control over the separate Armed Services.

The desire to get our economic house in order led to the passage of the Gramm-Rudman-Hollings Deficit Reduction Act in 1985. Since that time, defense spending has dropped by almost 15 percent in real terms. More significantly, as I indicated in my prepared statement, the level of defense spending that was projected before the passage of Gramm-Rudman-Hollings has declined by some \$600 billion, or 30 percent.

The Defense Department currently is in a very difficult if not impossible position. Its leaders did not recognize the fact that the deficit would prevent the defense budget from growing, and allowed the Department to keep many more programs under development than it can fit into its budget.

As my colleague at Brookings, Bill Kaufmann, and I have estimated, DOD now has over \$1 trillion of new programs in its pipeline. We also calculate that DOD will confront a shortfall of over \$200 billion over the next 5 years, assuming that that budget continues on the same path that it has been on in the last couple of years.

Fortunately, for the Department and the Nation there is a way out of the current quandary. In fact, we can make a virtue out of necessity by moving very rapidly in the area of arms control. Based upon the stated positions of the United States and the Soviet Union, and both START and CFE, I believe that we can safely reduce the level of defense spending by at least \$50 billion in today's dollars by 1995, and at least another \$50 billion by the end of the century.

This will free up at least \$700 billion over the next decade to enhance our economic security by reducing the deficit and eventually permitting us to increase funding in other areas of national concern, like education, without undermining military security.

I would like to close by making two points. One is that, if we do go ahead with that reduction, that will bring us back in the year 2000 to the level of the mid-1970's. This is not a plan for unilateral disarmament. In 1975, in today's dollars, the defense budget was about \$190 billion. We are talking about a \$200 billion budget by the turn of the century.

The other point is that, even if we do not conclude these arms control negotiations successfully, the defense budget will continue to decline. The real question before the Department, the administration, and the Congress, is whether in fact we will reduce the threat along with the budget.

I believe that the plan that I have presented will allow us to have a balanced military force. It is a plan that allows us to deal adequately with the threat and also free up the resources to deal with the other urgent national problems, starting with the deficit.

Thank you, Congressman Solarz.

Representative SOLARZ. Thank you very much, Mr. Korb. I appreciate it.

[The prepared statement of Mr. Korb follows:]

PREPARED STATEMENT OF LAWRENCE J. KORB

It was not until the Presidency of Dwight D. Eisenhower that the United States made the decision to maintain a large standing military in peacetime. Rather than demobilize as we had after every war, the former general decided to maintain a significant military establishment after the conclusion of the Korean conflict in 1953. However, Eisenhower recognized that there were limits to the amount that this nation could spend on military preparedness without in fact undermining national security. In his view, national security meant balancing the "great equation," that is, keeping military strength and economic strength in balance.

During the Eisenhower presidency this nation spent an average of \$208 billion (in FY 1990 dollars) on defense. Not even the near hysteria brought about by the Soviet launch of Sputnik in 1957 could force the former general to unbalance the great equation by raising defense spending significantly. Indeed his response was not to launch a crash program to close the "missile gap," but to launch the federal government into the education area. Rather than heeding the cries to accelerate the Polaris and Minuteman missile programs, Eisenhower instead enacted the National Defense Education Act and warned his countrymen about the evils of the military industrial complex.

President Eisenhower also understood that this nation had to insure that its military strategy, organization, and resources were congruent if it was to get the most out of its defense budget. Thus, to keep the defense budget at a level consistent with meeting society's other goals, Eisenhower decided not to match the huge conventional forces of the Soviets, the Chinese, and Eastern Europe nations, but to

rely primarily on the less expensive but more powerful strategic forces. Moreover, Eisenhower attempted to ensure that DOD received the most out of every dollar by imposing unprecedented unification and centralization upon the separate armed services. (Unfortunately the Congress resisted his efforts in this area, a mistake corrected in 1986 when it passed the Goldwater-Nichols Defense Reorganization Act.)

Unfortunately the lessons of the Eisenhower Administration were forgotten and even ignored by the 1980's. During this decade this nation has spent an average of \$300 billion a year (in 1990 dollars) on defense. This huge expenditure coupled with tax reductions and the growth of entitlements has added over \$2 trillion to our national debt, hopelessly unbalancing the 'great equation' and making interest on the federal deficit the fastest growing item in the federal budget. Indeed, if present trends continue, interest on the national debt will be higher than defense spending by FY 1995.

To make matters worse, this large outlay for defense was not guided by a coherent military strategy, nor by control over the separate services. As the chairmen of the House and Senate Armed Services Committee have remarked on more than one occasion throughout the Reagan Administration, DOD has an Army, a Navy, an Air Force and a Marine strategy.

The desire to get our economic house in order led to the passage of Gramm-Rudman-Hollings Deficit Reduction Act, 1985. Since that time the defense budget, although increasing slightly in nominal terms, has

dropped by about 13 percent in real terms. More significantly, as indicated in Table 1, the level of defense spending that was projected before the passage of Gramm-Rudman-Hollings has declined by some \$600 billion or 30 percent.

The reduction in the proposed level of defense spending has placed the Department of Defense (DOD) in a difficult position. Because its civilian leadership refused until recently to recognize the fact that the deficit problem would prevent growth in defense spending, DOD has many more programs under development than it can fit into its budget. As indicated in Table 2, DOD has over \$1 trillion in its pipeline. Moreover, as outlined in Table 3, defense is confronting a shortfall of over \$200 billion over the next five years.

Fortunately for DOD and the nation, there is a way out of the current quandary. It lies in the area of arms control. Based upon the stated positions of the U.S. and U.S.S.R. at the START and CFE negotiations, my Brookings colleague, William Kaufmann, estimates that defense spending can safely drop by at least \$50 billion in FY 1990 dollars by FY 1995 and another \$50 billion by the end of the century. This will free up at least \$500 billion to enhance our economic security and to increase funding in areas like education, which impact on national security, without undermining military security. Tables 4 and 5 compare the current and future budget levels and force structures that can be brought about if the arms control negotiations are brought to a successful close.

It is important to note that it is in the interest of DOD and the administration to bring these negotiations to a successful close because the defense budget will decline even if the START and CFE negotiations collapse. The only question is whether the threat will be reduced along with the budget.

In addition to the ongoing arms control negotiations, DOD should be able to get more out of each dollar because of the passage of the Goldwater-Nichols Defense Reorganization Act of 1986. This act gives the Secretary of Defense and the Chairman of the Joint Chiefs of Staff the power to train, equip, and operate the separate armed services in a way that eliminates much of the waste and duplication of the past.

TABLE 1

Department of Defense Five-Year Plans for Fiscal Years 1986-90
Budget authority in billions of current dollars

Plan	1986	1987	1988	1989	1990	Total
Administration request, February 1985	314	354	402	439	478	1,987
Administration request, February 1986	281	312	332	354	375	1,654
Administration request, January 1987	281	282	303	323	344	1,533
Actual authorized	281	279	284	290	296	1,430

Sources: Department of Defense Annual Report, Fiscal Years 1986, 1987, 1988.

TABLE 2

Estimated Cost of Equipment in the Defense Pipeline.
Fiscal Years 1990-99
Billions of current dollars

Component	Cost
Army	
Aircraft and helicopter	13.6
Tactical missiles	27.2
Tracked vehicles	20.0
Other procurement	29.6
National Guard and reserve equipment	9.3
Subtotal	101.7
Navy	
Aircraft and helicopters	141.8
Shipbuilding and conversion	107.9
Missiles and torpedoes	70.6
Other procurement	15.2
Marine Corps (ground equipment only)	2.6
Subtotal	338.1
Air Force	
Space	24.0
Aircraft and strategic missiles	306.5
Tactical missiles	22.5
Other procurement	46.6
Subtotal	399.6
General	
Strategic defense initiative	119.3
Classified programs	48.9
Total	1,007.6

Sources: Kaufmann, "Defense Agenda," p. 83, Armed Forces Journal International, December 1988, pp. 30, 34, and February 1989, p. 16; Military Forum, January-February 1989, p. 28; Defense News, February 13, 1989, p. 10; and author estimates.

TABLE 3

Defense Budget Projections and Potential Shortfall in
Program Support, Fiscal Years 1990-94
Billions of current dollars

Projections	1990	1991	1992	1993	1994
February 1988					
(Carliucci plan)	307	324	342	360	378
April 1989					
(Cheney plan)	296	311	322	336	350
Cumulative difference	11	24	44	68	96
Cumulative potential shortfall of 1989 plan	7	34	83	160	242
Component:					
Inflation greater than expected	1	4	10	19	31
Unitemized subtractions (funding wedges) included	0	0	15	30	45
Effects of real freeze	0	3	9	16	23
Effects of nominal freeze	6	27	49	95	143

Sources: Department of Defense Annual Report, Fiscal Year 1989 and
Fiscal Year 1990; and author projections.

TABLE 4

Defense Spending FY 1990-FY 2000 After START and CFE
Billions of FY 1990 dollars

Appropriation Title	FY 1990	FY 1997	FY 2000	Reduction (FY 1990-2000)	
				AMT	%
Military Personnel	79	70	58	21	27
O&M	90	75	56	34	38
Procurement	78	66	50	28	35
RDT&E	40	33	31	9	23
Military					
Construction	5	4	3	2	40
Family Housing	3	2	2	1	33
TOTAL	295	250	200	95	32

Source: William Kaufmann, Glasnost, Perestroika, and Defense Spending,
Brookings, (Forthcoming), Table 28.

TABLE 5

Conventional Force Structures, FY 1990, FY 1997, and
FY 2000 with a CFE Agreement

Component	FY 1990		FY 1997		FY 2000	
	Active	Reserve	Active	Reserve	Active	Reserve
Land						
Army	18	10	15	10	8	10
Marines	3	1	3	1	3	1
Air Force						
Wings	24	12	20	12	12	12
Sea						
Carrier Battle Groups	14		12		9	
Total Ships	563		500		400	

Source: William Kaufmann, Glasnost, Perestroika, and Defense Spending,
Brookings (Forthcoming), Table 28.

Representative SOLARZ. Admiral La Rocque, please proceed.

STATEMENT OF REAR ADM. GENE R. LA ROCQUE, U.S. NAVY, RETIRED, AND DIRECTOR, CENTER FOR DEFENSE INFORMATION

Admiral LA ROCQUE. Thank you very much, Congressman Solarz.

I think that these hearings could be significant, and perhaps this is the only committee in the whole Congress that is broad enough in character to take on these hearings on national security and the future of our military forces in line with the economic problems.

Everybody talks a lot about national security, but nobody knows what it means. It has never been defined officially by the Congress to my knowledge, nor by any part of the executive branch of the Government, with one exception, and that is the Joint Chiefs of Staff. They define "national security" as one of achieving military superiority over any or all nations. So over the years, national security has taken on a very significant military hue.

The Center for Defense Information, and many others, have felt that national security really consisted of an appropriate mix, a blend of the political and social, the economic and military aspects of our society. We cannot get unbalanced.

I was very attentive to the questions which the committee asked, because I think they get right to the heart of the problem, factors which will determine our military requirements.

Now, if we can answer those sensibly, we are on our way to determining our actual military requirements. It forces us to look ahead, rather than to look back at what transpired in the Spanish-American War, the Russian Revolution, World War I or World War II, even Korea and Vietnam. It is a whole new era.

From my travels to many countries, including many trips to Eastern Europe and China, I am absolutely convinced that the cold war is over. It has been over for some time. We have won it; or perhaps more appropriately, they have lost it. But it is definitely all over. Anyone who looks at the scene today either does not see what is happening or simply cannot recognize the significant changes that are taking place.

That leads us, of course, from a military point of view to the Warsaw Pact. I think the Warsaw Pact is crumbling, it is collapsing. It could not punch its way out of a paper bag today. I would not want to be a Russian general in charge of the Polish or Hungarian or East German troops today.

I had a Soviet general in my office yesterday, an active duty major general, and I raised this question with him. "Well," he said, "the structure is still there." Yes, the structure is there, the facade will stay for some time; but the Warsaw Pact, from purely military terms, in my view as a commander, is gone.

That does not mean to diminish at all the capabilities of the Soviet military forces on their own, which are rather formidable. But if the Warsaw Pact has indeed collapsed, as I think it has, it certainly raises the question of, what is the future of NATO?

I would argue that the 5 million troops that now exist in NATO will increasingly become irrelevant, and it will be increasingly difficult for us to justify keeping 350,000 U.S. soldiers, airmen, marines, navy, in Europe, and with all of their dependents, at a tre-

mendous cost, approximately \$150 billion a year to keep the troops there and provide the necessary backup.

There simply will be no military requirement to keep our forces in Europe. Yes, you hear a lot of talk about, "Oh, well, Europe will go to hell in a basket if we do not keep our forces there and keep the political situation stabilized." That is not the role of the military, and certainly not the role of this coming era with Germany and the other countries of Europe, being so strong economically and militarily.

So I would concede the gradual reduction of our forces in Europe, to have them all out by the end of 10 years, at the latest, without any diminution of our military strength, nor any situation arising in Europe in which the political situation would disintegrate. We can always slow that if we find that we have moved too precipitously, but we ought to start.

Now, as to the division of Germany, I have been to East Germany, I have lectured at the Free University in Berlin. And I have found always that it is a very unnatural condition, the way Germany has been divided. There is a certain amount of unease in the world today if those 17 million East German citizens were to join with the West Germans, but it is going to happen. There is nothing anybody can do to stop it.

It would be in our interest to try to find a way to accommodate to this gracefully, to our advantage. And I think it would be to our advantage. Not only would the 17 million East Germans no longer be in the hostile category; I think it would remove the last vestige of the Warsaw Pact, once they make an accommodation with West Germany. I think it will accelerate the removal of U.S. forces. It also could increase our trade with an area of the world that will be looking for our products.

Now, as to the Berlin Wall, everybody says, "What a surprise, what a shock." Well, Soviet diplomats have been telling me for years—at least for the last 4 years—that this is a matter solely for the Germans. As far as the Soviets were concerned, they would happily see the wall come down.

I have often suggested to them, why didn't they then tell the Germans to do it; but they would always tell me that this had been a German problem. On three occasions in the last 18 months, I have had discussions, some in a semipublic gathering, with Ambassador Harder of East Germany. He has made no secret to the fact that his government supported the idea of tearing down that wall. They were looking for a propitious moment to do it—in other words, the ferment, the change that has been taking place over there in Europe for some time. We have carefully distanced ourselves from it, because once we begin to think that Europe is changing, then we will no longer be able to justify keeping our forces in Europe.

I find also in going all over Europe there is a certain amount of discomfiture with the Russians, among the Poles, the East Germans, and the Hungarians. They want the Russians to get out. And that is soon going to happen, in terms of the Western Europeans' attitude on the United States. I find a growing anti-Americanism in Europe, in Germany. The presence of 250,000 troops in Germany enhances that.

Likewise, when you take a look at the Asian theater, it may be, Congressman, that you and I are the only people in the room that have covered both North and South Korea. I think your visit well preceded mine. But I think that we can say in a nutshell, when you look at Korea, Japan, the Philippines, that they do not need us any more. There is simply no need for us to maintain our forces in any of those three countries.

They do not need us; and we frankly do not consider them essential to the defense of the United States. If we took our troops out of Japan, it would not change our defense capability one iota.

Now, just a mention in passing—and I covered it more fully in the strategic section. When we are looking at the factors which we will consider which will determine our military requirements, we do indeed have to look at the strategic component: The Soviets have the capability to destroy us in 30 minutes, they will retain that capability in the 1990's. What do we do about it?

Well, if we have a strategic policy focused solely on a retaliatory deterrent capability—in other words, we will retaliate, to deter—we can get along with 1,000—1,000—survivable nuclear weapons. That is all we need. We keep more than that, three times that many. There is that number at sea at all times, submerged in submarines targeted on the Soviet Union, already today.

Now, if on the other hand we decide as a nation that we want the capability to strike first, that increases the number of nuclear weapons that we need in our arsenal and the delivery vehicles. Our calculation is that a maximum of 3,800 nuclear weapons would destroy the Soviet Union's first strike capability, all of its line-based missiles, air fields, submarine bases, ship yards, industrial centers, and destroy the Soviet Union as a society.

Now, we have some 13,000 nuclear weapons today targeted on the Soviet Union. So we can dramatically reduce the numbers to one-third, or even one-tenth of the—that you mentioned in your earlier remarks as a question.

We would carry it one step further, and say that by the end of this decade, the end of the 1990's, we could maintain an adequate military posture, adequately strong, with a force of 1.2 million people under arms. We now have 2.2 million. You could cut off a million people, and we would still have all the forces that we need in this new era at that time.

Our spending could be reduced to \$200 billion a year in current dollars, and that would be adequate to provide all of the forces and all of the weapons that we need for this coming era. It would give us the military posture in concert with the new realities which have come into being.

Now, you are going to find a lot of people opposed to any kind of reductions in the military, because, frankly, the cold war militarily has given focus to our lives over the years, it has given us some purpose, it has given reason for existence. It has given us something to establish the fact that we are the leader of the free world. If the cold war is gone and we do not have a big enemy out there in the Soviet Union, we would lose that rationale.

But from a more practical point of view, the defense contractors and their 3 million employees are going to push every way they

can to keep the cold war going and to tell us that we need military forces for some possible threat that we cannot even visualize.

The active military people are going to be fighting to keep the military levels high. And then there are the various groups in this town—and I would refer specifically to the group of which I am a member—there are 1,500,000 of us, retired military people. Many of them have become somewhat inactive. They happily draw that retired pay, as I do mine, but spend their time pushing for strength in military forces, and they will fight tooth and nail over any suggestion of reduction.

I would also have to mention the laboratories, the universities. They all are going to get into the fight to keep the military spending up. You see the front page of the Washington Post this morning, this was in the middle of the paper: the universities are going to get some huge grants again from the Department of Defense budget, which I have always thought was rather peculiar.

So these beneficiaries—and there are 9 million of them, at least 9 million beneficiaries of this Pentagon largess—are going to be out there fighting. There are 3 million people in the defense industries. There are 2,200,000 in active duty. There are 1.6 million that draw pay reserves, or 1,500,000 of us retired. And if I did not mention, 1 million civilians working for the Pentagon. It gets you up to over 9 million people who directly or indirectly get a check from the Pentagon every month. That is going to be the problem in changing in this new era.

I would suggest that this is a real opportunity for this country, a real opportunity for the Congress, if we can make these dramatic reductions. The battleground has shifted away from the military, to an economic sphere. That is why this committee is so important. We pride ourselves in this country with our adaptability. We think we can change. We are flexible.

We have an opportunity now, and if we want to stay a leader of the free world we must stay strong economically. The way we can do it, in our view, in my view, is to cut back on the military spending when we no longer need to maintain such a high level.

Representative SOLARZ. Thank you.

[The prepared statement of Admiral La Rocque follows:]

PREPARED STATEMENT OF REAR ADM. GENE R. LA ROCQUE

Mr. Chairman, the scope and content of these hearings could have an important bearing on our nation's security in the 1990's and beyond. Thank you for inviting me.

I am encouraged by the obvious intent of the committee to examine all aspects of our national security policy, including the political, social and economic aspects as well as the military component. Perhaps the Joint Economic Committee is the only body in the Congress with a charter broad enough to encompass these comprehensive hearings.

We Americans talk a lot about "national security." The term ranks right up there with the "Stars and Stripes" in emotional appeal. Outside the Pentagon few agree on what the term means, but everyone agrees we need it. Only the Joint Chiefs of Staff have actually defined the term national security in their dictionary of military terms. Their definition emphasizes military superiority: "a military or defense advantage over any foreign nation or group of nations."

Over the past forty years this drive for security has taken on overwhelming military emphasis and now involves over eight million people actively engaged in the defense establishment at a cost of six billion dollars each week. It is this emphasis on the military which has sparked a growing number of appeals for a redefinition of the term national security.

The questions the committee has posed go right to the heart of the matter. The most important factor which will determine our military requirements in the 1990's is who, where, and when the nation will call on the military to fight. The Soviet Union is the only nation, outside of Britain and France, which could destroy us with nuclear weapons. We can be certain they will retain that capability throughout the 1990's and beyond and we must deal with that.

We can choose to maintain either a retaliatory force designed to deter a Soviet attack, or we can maintain a force capable of striking first. If we choose a retaliatory strategy we will require 1000 nuclear weapons that must survive a nuclear attack. Currently we have approximately 20 missile submarines at sea at all times. These 20 submarines are armed and ready to respond to a Soviet attack with more than 3000 nuclear warheads. This is three times the amount needed to respond to a Soviet attack.

If we elect to maintain a capability to launch a surprise attack in an attempt to destroy Soviet strategic nuclear forces, including ICBMs, air fields, naval bases and command posts, we will require no more than 3200 to 3800 nuclear warheads. We now have the capability and are ready if ordered to launch an overwhelming attack against the U.S.S.R. with 13,000 nuclear weapons, hence there is no military requirement to build more nuclear warheads during the 1990's.

If an agreement is reached to reduce the strategic forces in the U.S. and U.S.S.R. by approximately 50% then it probably will be necessary to cancel some of the new ICBM's, bombers, and Trident submarine programs currently being funded by the Congress. Major cut backs in our warhead production could also result. Recent news reports indicate that the Soviet Union is already making unilateral cuts in some of its strategic nuclear weapons.

Some U.S. analysts and military planners worry a good bit about the possibility or, more precisely, the probability of the proliferation of nuclear weapons in third world countries. Many nations now have the nuclear material and the capability to build nuclear weapons and we at the Center for Defense Information estimate that 15-20 countries could each construct some nuclear weapons by the end of the 1990's. No one seems to know what to do about this development but it is a factor which cannot be ignored. Perhaps it would be prudent for the President to call a meeting of the existing nuclear nations and discuss the problem in hopes of finding a way to deal with it. Or perhaps an international meeting called by the Congress to examine the problem would be in order.

While strategic force requirements can with some accuracy be ascertained and justified it is far more difficult, but not impossible, to develop requirements for the non-nuclear components of our armed forces.

Since World War II our military strategy has focused on power projection and defending countries in Europe and Asia. This power projection strategy coupled with an outmoded forward defense strategy has generated a requirement to maintain 500,000 combat-ready troops in Korea, Japan, Germany and many other countries.

More than two-thirds of all our military spending goes for the maintenance of these half-million U.S. uniformed persons in foreign countries and the back-up needed to reinforce when the situation requires.

As the nations we now are defending continue to grow richer and more powerful, and the threat from hostile forces diminishes, there will be less need to maintain large numbers of troops in foreign countries. In addition, evidence continues to mount suggesting that the Warsaw Pact is showing strains and may in a few years lose its military character and perhaps collapse completely. This factor will markedly diminish the requirement for the North Atlantic Treaty Organization and the need for troop levels to remain at current levels.

These and other factors will reduce the requirement for the maintenance of the current U.S. force levels in Europe and the impact of the reduction of U.S. troops in Europe will be felt throughout the entire defense establishment, probably by the mid-1990's. This will be true whether or not conventional arms agreements are reached in Vienna because the unilateral actions by the Soviets may render those discussions moot. A progressive, gradual reduction of our troops in foreign lands to zero or nearly so by the end of the 1990's will almost certainly occur.

The presence of our combat troops in foreign countries has been tolerated by the older generations, but this tolerance is not matched by the young in Germany, Korea, and Philippines. In nearly every nation where U.S. troops are stationed there is a growing resentment and even a nascent spirit of anti-Americanism is developing. Some of this anti-Americanism can be attributed to the presence of our troops and cannot be ignored.

It makes no sense to assist people who do not need or want our assistance and prudent military planning would suggest a graceful and voluntary removal of some and ultimately all of our troops.

There is little concrete military evidence to suggest that U.S. forces in foreign countries are there to defend the U.S. It is possible that in the pre-nuclear missile era that some case could be made for a forward defense strategy, but in the 1990's U.S. army divisions in Europe and Asia contribute little or nothing to the defense of the U.S. Perhaps the best test of the validity of a forward defense strategy is to ask this question: If we had no troops in foreign countries today would we send 500,000 troops to Europe and Asia? I think it would be unlikely.

Another factor which will determine military requirements for the 1990's is the degree to which we intend to employ military force to acquire oil and other raw materials. In this we have a choice. If it is to be our policy to send troops ashore to keep in power governments which will ensure a supply of whatever it is we want, then there will be a requirement for the appropriate level of forces to invade and control areas in Southwest Asia, Africa, and Latin America. If our policy is to follow the Japanese, Korean and German models of simply producing a better product at home and paying the going world price for the raw materials there would be a diminished requirement for offensive military forces.

Obviously we cannot predict the future course of events with certainty, but neither can we base our military strategy and force structure for the 1990's only on conditions which prevailed in the past. Hitler is dead, the Cold War is over, the Warsaw Pact and NATO will soon be irrelevant. We can pretend to ignore the changes which are occurring at the risk of becoming irrelevant ourselves.

After World War II we promptly reduced our forces from 12 million to 1 1/2 million. After Vietnam we cut our forces from 3 million to 2 million and there is every reason now to move toward a force of about 1.2 million total active persons which could be operated for \$100 Billion less per year than the current \$300 Billion military budget.

Militarily, a total force 1.2 million persons can reasonably be justified for the 1990's. However, there are a number of factors which will help maintain much larger and more costly forces.

Foremost of these is the large number of civilians who are now working in the defense industries: 3 million today as opposed to the 2 million when Mr. Reagan took office.

Many of our major industries have come to depend on profits from military contracts and are intent upon keeping their influence over members of Congress to maintain and even increase the level of military spending. We have created a permanent wartime economy, as President Eisenhower feared we might, which may overpower the efforts of those in the Congress who might favor a smaller, leaner military establishment.

Most of my remarks have been addressed to the issue of what factors will determine U.S. military requirements for the 1990s and appropriate U.S. responses. The Committee has posed several other questions.

The Center for Defense Information for many years has stated that "strong social, economic, political, and military components contribute equally to the nation's security." Thus we emphatically endorse the proposition that a strong, productive U.S. economy is central to the national security. America's deteriorating international trade position is more damaging to our security than any new Soviet weapons development. The enormous burden of the rising federal budget deficit threatens the lives and prosperity of our children. The American educational system needs a major new infusion of creative ideas and resources if we are to retain our world influence in the future.

I have some skepticism about spending lots of money on a huge "defense industrial base." It is extremely unlikely that the U.S. will be engaged with the Soviet Union in a re-run of World War II. Any war with the Soviet Union will be a nuclear war and short. We will not have months and years to step up the production of tanks and battleships. We do not need to spend money for jobs and profits to keep companies in business who might make problematic contributions to the nation's real defense.

It is important that we maintain a high level of scientific and technological capability but the pursuit of civilian research should take priority over exotic military activities reminiscent of the Star Wars boondoggle. Let the military be the recipients of spin-offs from civilian R&D rather than making our struggling industries dependent on wasteful military R&D spending which does little to strengthen U.S. capabilities in world trade.

The involvement of our armed forces in the drug war will not be a significant factor in determining military requirements in the 1990's. Active participation in a job for which they are ill-equipped and not trained may ultimately reduce their status in the eyes of our citizens. Drug interdiction is a classic role for the Coast Guard. If the 38,000 Coast Guard men and women are not sufficient and their equipment inadequate transfer 20,000 people from the armed services to the Coast Guard and give them the equipment and money for the job.

The Cold War has been ending for many years, perhaps since the Cuban missile crisis. There have, of course, been many detours and setbacks. There may be more in the future. But it is unmistakable that we are in a new era of human history. The Soviet Union is changing in remarkable ways. The United States will also need to change and adapt. It is time to get on with discarding our outmoded Cold War military strategy and moving rapidly toward a smaller force structure. Some will say "not yet" but when we spend \$6 Billion every week on the military establishment we are engaged in monumental waste. Americans want a strong, effective military and they are rightly losing patience.

Representative SOLARZ. The three of you framed the issues which we are considering very well. You made some very insightful and thought-provoking observations.

I am delighted that my colleague, Congressman Upton, has joined us. He tells me he will not be able to return when we resume after Lech Walesa's talk. I am going to yield to him now for such questions as he may want to ask. It is not often that someone at the other side of the aisle has the chair on a congressional committee, so this is a comment on your meteoric rise.

I hope you gentlemen will forgive me. I will return at about 10 to 12, as soon as Walesa finishes. Staff tells me that a TV set will be moved into the room for those of you who are interested in watching this historic occasion.

Personally, I think it might have been a good idea to have invited him to these hearings as well, since I think, perhaps more so than any other single figure, he helped to facilitate the kinds of developments which have produced this hearing today. He will undoubtedly go down in history as one of the most historic figures of the 20th century, by his courage, charisma, and help to produce these profound transformations.

Congressman Upton.

REDUCING DEFENSE SPENDING

Representative UPTON. Thank you. I also am going to attend the joint session, so I apologize for missing the very beginning of this hearing.

Basically, I would like to follow up on your comments, Admiral La Rocque, and hear some of the insights from the other two gentlemen. The Defense Department has declined in real terms for the last 4 or 5 years. The Defense Department is under sequestration because of Gramm-Rudman, until Congress gets its job done and gets a real, true deficit reduction bill, called the reconciliation. Hopefully, we will achieve that before Thanksgiving.

We may end up with sequestration for as long as 4 months in this fiscal year, because it will be very difficult to hit the Gramm-Rudman target reduction of \$64 billion for fiscal 1991. And, of course, the argument is that it is a lot easier to reach that new target coming from a \$100 billion deficit than it would be from \$117 billion, if it is only savings in that.

In Congress over the last couple of years, because of Pat Schroeder and others, burden sharing has become a hue and cry that is bipartisan. Yet, we have not received any real hope of burden sharing by our allies. I would imagine that would have resulted in real savings.

I note that Secretary of Defense Dick Cheney, in recent days, because of sequestration, has talked about real reduction of troops if Congress does not get its job done. He is claiming that hundreds of thousands of troops will have to be cut.

I do not know whether this is the Washington Monument scare story that we saw in the early Reagan days all over again or not. When the Interior Department was going to cut funds, the story was that they were going to close the Washington Monument on

weekends and the Fourth of July so that millions of people would not be able to enjoy it. In fact, the funds were restored.

There have been a number of books and debates with regard to reducing our troops in Korea by perhaps 10,000. Is this a way for China to move in and play the big China game?

Obviously, events in the last few days, the fall of the Berlin Wall and possibly the collapse of the Warsaw Pact and what it will lead to by the end of the decade, are important. Where are you on these issues? What are your thoughts on sequestration? What are your thoughts on real reductions in troops and defense dollars over the next few years, with these budget constraints that we in Congress are finally forced to address?

I would like to hear from all three of you, and then I am afraid I have to adjourn the meeting until my colleague, Congressman Solarz, returns.

General Odom.

General ODOM. You had several questions, and you ended up with sequestration. I think that the best way to deal with the range of questions is to go back and pick up a point at the very core that was mentioned earlier.

We talked about how much money could be cut in defense to help improve our economy. The real issue is whether money cut from defense will help the U.S. economy. It has been my experience when I was a serving officer dealing with the Congress in getting appropriations, that any money that was cut from defense went to tobacco price support, Medicare, dairy price supports, or some other such program.

If you can convince me that the money that is being taken out of defense somehow would be a reduction in the overall Federal budget, then my enthusiasm for some of what Admiral La Rocque said, for some of his remarks, might go up.

He cited 9 million lobbyists who will push for the defense budget. He neglected to mention approximately 25 or 30 or 90 million additional lobbyists for other kinds of programs. So I think the issue gets framed in an unfortunate way in that regard.

The burden-sharing issue, I quite agree, is critical—and in my prepared statement, which I did not read fully, I made some points about burden sharing which I think the United States really perhaps should move on. I do not think that we will get a rational and sensible response from our allies by just threatening to yank everything out and let it all go to hell. I do think that we can guide our allies in innovative ways to pick up more of the burden.

I suggested, for example, that bases that we not pay for in Europe we should not pay for in the future. If Greece, Spain, and Turkey need money for our bases, then the wealthy northern European members of the alliance, it strikes me, should pick up those costs. I would say the same for the Far East. I think that there are ways to define the burden sharing issue more broadly, and essentially to tax the allies for their share of that.

If we cannot succeed in that regard, then I do have serious doubts about our ability to maintain these remarkable international structures that we have built after the war, as we go into a new period in which I think there is a very serious danger of fragmentation that will give us quite different kinds of military problems.

Let me stop there.

Representative UPTON. Mr. Korb.

Mr. KORB. Congressman, let me start with the Washington Monument question. I think, when people talk about sequestration, if it came for the whole year it would bring defense spending back to about \$280 billion a year. That is where we were with today's dollars in 1983, and in 1983 we had 26 active divisions, 36 airwings, and a little over 500 ships and 13 carrier battle groups. So when people say if we go back to 1980 we have to take 200,000, I think that they are playing games. Yes, you could do that, in fact that is how you wanted to meet the targets.

In my testimony I made this point. If in fact we cut defense even to the levels that Admiral La Rocque spoke about, which is \$200 billion, that would bring you back to where we were in the mid-1970's. In the mid-1970's, people were not talking about unilateral disarmament, or any of these other things. I think that is important to keep in mind.

In terms of deficit reduction, it is clear to me that since the passage of Gramm-Rudman-Hollings, the deficit has fallen. It may not have fallen as much as we would like, but it has fallen by at least \$100 billion. The majority of that has come from cutbacks in the plain growth of defense spending. So in fact, what has happened—and this is even before we have Mr. Gorbachev making his dramatic moves—you have what I would call the operation of the "Willie Sutton principle": Why do people go to defense? Because that is where the money was. You may remember, Mr. Sutton used to rob banks. They caught him. They asked why he kept robbing banks. He said, "That's where the money was." So in fact, we have seen that. So I think it is important.

What I cannot emphasize too much is that we are in an era where defense budgets are declining, starting even before Mr. Gorbachev. But with the advent of Mr. Gorbachev, it is going to continue to decline even more.

The question before the Congress, before the administration, is, can we do it in such a way that we deal with the threat? That is why we have to work assiduously on the arms control agreements, and we do it in such a way that we have a balanced force structure.

The DOD now has a force structure that costs about \$404 billion a year to maintain, and the budget is not anywhere near close to that. They are having a very difficult problem. What we need to do is to begin to take the steps to move us so that, by the year 2000, the resources and the program and the budget and the force structure are all together.

Representative UPTON. Admiral La Rocque.

Admiral LA ROCQUE. I know you have to go, Congressman Upton. On the question of sequestration, I think it is a lousy idea.

Representative UPTON. I agree with you.

Admiral LA ROCQUE. It is a terrible way to try to do military planning. We ought to look at whatever our needs are militarily. What are the requirements?

Just across-the-board cuts will do nothing but really foul up any sensible military planning that has been taking place.

Representative UPRON. The same with health care, and everything else.

Admiral LA ROCQUE. Everything else. It is going to be very, very disruptive for the country.

The Congress, I think, could have done something to have forestalled this, as we all know. Probably, they could have avoided buying either the MX or the Midgetman, or both, and a few other items perhaps which would have made sequestration unnecessary.

As to burden sharing, I think the problem is that we are doing too much. It is not a question of our allies doing too little. The Germans are going to be very reluctant to pay for our bases in Turkey, because they are using their money to lend it to the Soviets, and lending it to the Poles and the East Germans, in huge amounts. Not only lending it, they are giving them the money, in the sense that it is a credit. They can buy goods in West Germany, which is going to strengthen West Germany.

Giving money to support our bases elsewhere, or even to increase the military spending, in my view is just not in the cards in this era. We are in as much as we would like it. I feel certain, too, unless we do more than talk about burden sharing and actually begin to take some troops out, we can be sure that they are going to sit fat and happy over there and not put in another nickel.

Representative UPRON. I thank all of you for participating this morning. I will take the testimony back with me.

We will see you at 10 minutes to 12.

[Whereupon, at 10:45 a.m., the committee stood in recess.]

Representative SOLARZ. Gentlemen, I truly appreciate your patience in waiting while we heard the historic speech of Lech Welesa before a joint session of Congress. Other members, who were not able to be here today, may have questions they will submit to you in writing. I would like to take this opportunity to ask questions of you as we look toward a changing economic and defense picture.

Threats come from without as well as within, in terms of a declining economy or social problems and the like. I assume you would agree with that.

General ODOM. Sure.

ARMS REDUCTION AGREEMENTS AND NATIONAL SECURITY

Representative SOLARZ. We are on the verge of a START agreement and a CFE agreement. The outlines of both agreements are fairly clear, but we have to resolve some differences.

But I would like to ask each of you if you think that we can go beyond the kinds of agreements that are being negotiated in START and CFE, to further reductions in nuclear and conventional forces. And if so, is there—assuming whatever reductions take place are mutual, verifiable, and involve not just the Soviet Union but its allies, we are talking about alliance reductions—a level beneath which we cannot afford to go in terms of the minimal central requirements of our national security?

General ODOM. In the short run, I do not know how one defines it—I think the minimal limit that you are talking about has to be really a moving minimal limit, and it is a pretty high minimum. It

might become lower later. That is about as specific as I can be on that particular point.

Let me make some points, however, on CFE and START. I think, in light of the changes that are occurring, that there is a real danger that arms control is completely out of synchronization with the political realities, and that changing the military balance precipitously through the arms agreements may lead us into situations that we will regret.

I do not see why we would have much enthusiasm for reducing forces in Central Europe, until we know how the German question is going to work out. Yet, CFE may accelerate the departure of those forces. I can see removing a lot of other forces from the periphery if we have to have cutbacks for economic or other reasons.

But it seems to me that the political rationales are changing rapidly, and they may not be consistent with what the initial political assumptions were for CFE. I think if this is true today, it may be an even more severe problem a year or two years from now.

Representative SOLARZ. Presumably, we maintain troops abroad to deal with any potential threat to our security or the security of our allies. If the threat is diminishing and the Soviet Union and the Warsaw Pact says to us, "We will go down in CFE, too, to 50 percent below current levels, maybe 60 percent below current levels, and it will be mutually verifiable"—let's say they even say, "You do not have to withdraw all of your forces. Obviously, with that kind of reduction you would have to take out many of them, but we would too."

What would be wrong with reductions of that magnitude?

General ODOM. The precipitation of events, the precipitation of developments as a result of recent changes in Eastern Europe, and I think events that are going to continue, could lead—not necessarily—but they could lead to a high level of disorder and uncertainty in Eastern Europe.

Under those conditions, I would prefer more, rather than fewer, conventional forces in Eastern Europe, even if the Soviets have reduced enormously.

Representative SOLARZ. Do you think the Soviets have pretty much precluded using the Red Army in Eastern Europe to prevent political and economic change?

General ODOM. Yes. And that is why I think the kinds of uncertainties that I am talking about loom even larger.

Representative SOLARZ. But not what would require Western forces.

General ODOM. It would certainly create a sense of stability and certainty in the western part of Europe, that might be nice to have as a dam against which to contain and deal with the uncertainties of Eastern Europe. It is extremely difficult to anticipate every kind of scenario that could occur.

Let me give you four examples. Suppose Yugoslavia becomes a large-sized Lebanon. Will we want no military forces in Europe, or even a significant reduction of them? Would that not raise uncertainties about decisionmaking in numerous countries in Eastern Europe which are no longer under the aegis of the Warsaw Pact in the sense that they were earlier?

The record of peace in the "European house" denuclearized is very poor.

Representative SOLARZ. Right. But the presence of substantial conventional forces in Europe has, according to history, not been a proven guarantee against the outbreak of war, either. Before World War I—I am sure you have read "The Guns of August"—there were mass armies in being. In World War II, it was the same thing.

So you can have the continent weighted down with troops, but historically that has not guaranteed the preservation of peace.

General ODOM. But the point that I made in my testimony—I would like to underscore here. The record of peace with U.S. troops in Europe within an "Atlantic house" is perfect, as opposed to the European house.

Representative SOLARZ. But the American military presence has to be seen in terms of the context of the circumstances that gave rise to it. Those circumstances were the emergence of a monolithic Soviet power, stretching across Eastern Europe, incorporating the countries of that region into the Warsaw Pact, with a substantial conventional preponderance in their favor.

So our troops were there as part of the NATO Alliance that was developed to deal with it. If that threat is not only seen to be diminishing, but is diminishing, and if furthermore there are offers on the table to diminish it further in conjunction with us, it is not clear to me what the political and strategic purpose would be of maintaining forces.

I am not necessarily talking about eliminating all of our forces, but why would we want to maintain costly commitments if we could negotiate them away in a manner that was compatible with our security?

General ODOM. I think the old formula is somewhat less valid, but it has certain points which are still operative. NATO was to keep the Americans in, the Russians out, and the Germans down. The Russians clearly seem to be staying out voluntarily. The Germans are coming up. Are you sure you want the Americans to go out at this time?

As I said earlier, the situation is changing, and I do not know what the uncertainties are. The old threat is not the same.

IMPACT OF GERMAN REUNIFICATION ON NATIONAL SECURITY

Representative SOLARZ. General, lots of new questions are coming up to which we do not have answers. That is one of the purposes of these hearings. One thing I can tell you with absolute certainty is that, at the moment the American troops in the Federal Republic of Germany are seen to be there not for the purpose of keeping the Soviet Union out of the Federal Republic, but of preventing the Federal Republic from some form of reunification with the GDR.

That is the point at which the presence of American forces becomes politically untenable. We are not there as an occupying force. We are there to support an ally.

You are offering a rationale which would make our continued presence there untenable in the eyes of the German people.

General ODOM. There is a real danger of that. I could not agree more with that. But I said earlier that I think that NATO has to find a new rationale without a Soviet threat.

Representative SOLARZ. This is the point. Believe me, I of all people am not indifferent to the potential implications of the unified German state. It may be unavoidable, and may turn out—

General ODOM. I think it is something where we have to sponsor and support.

Representative SOLARZ. Nobody who is aware of the history of the 20th century can view it without at least some trepidation and concern. But the point is that democratic policies have to be based on a justification which is publicly defensible. You cannot have a public justification which bears no relationship to changing realities, and a private justification which is the real basis for the policy which you are precluded from talking about because, if you do talk about it, it will create counterproductive consequences.

Keeping the Germans on a leash is not an acceptable public justification.

General ODOM. I hope you understood that my point was that we have to change the rationale so that NATO now becomes the sponsor of progress on the German question, and a new definition, a new rationale, for an Atlantic house that can maintain peace.

The concern I have is that, if we focus on "end-ism"—the end of the cold war, we can all cheer and now come home—but in so doing we will overlook a series of new questions that are upon us, and we will not address them fast enough to deal with the events.

Representative SOLARZ. Let me ask you, each of you. If you had to make a choice between the current division of Germany with the GDR being in the pact and the Federal Republic being in NATO, or a reunified Germany but also a neutral Germany in which both parts withdrew from their respective alliances, looked at purely from the point of view of American security interests which of those two alternatives do you think would be better for the United States?

General ODOM. The former.

Representative SOLARZ. A reunified but neutral Germany?

General ODOM. Oh, no, au contraire. I think a neutral Germany is a formula for trouble. Konrad Adenauer understood the dangers, and a number of Germans today understand it.

Admiral LA ROCQUE. I would clearly favor, from a military point of view, a neutralized Germany. As long as Germany is divided, there is friction. There is the danger of a war in Europe which would inevitably involve the United States.

If we had a neutralized Germany, with East Germany pulling out of the Warsaw Pact, that would pull the plug on the whole Warsaw Pact.

Representative SOLARZ. Doesn't the Federal Republic constitute a more important military component of NATO than the GDR does under the Warsaw Pact, in terms of manpower, materiel?

Admiral LA ROCQUE. No question about it. But the purpose of what we are trying to do is not just to preserve NATO. NATO was formed in order to prevent a war in Europe, to fight a war if we had to, to make Europe a peaceful place for the Europeans.

Representative SOLARZ. But if one wants to preserve the peace, and one certainly wants to keep in mind the sensitivities of all of the parties involved—and I have the impression, based on the statements coming out of Moscow out of the last few days that if one wants to reduce tensions the last thing one wants to do at the present time is to pull the GDR out of the Warsaw Pact, which is what would have to happen in the context of any imminent reunification of Germany.

Admiral LA ROCQUE. First of all, we are not going to have much to say about it. Second, the GDR in my view is effectively pulling out of the Warsaw Pact already. They are recipients of huge loans from their nominal enemy with the West, the West Germans, and the West Germans are offering huge amounts of money to the East Germans. So this is all new. In this context, it is all different.

TIMEFRAME OF DEFENSE REDUCTIONS

Representative SOLARZ. You said, Admiral La Rocque, that you think that we can reduce our military forces over time to 1.2 million, and this could save up to \$100 billion a year. What timeframe do you have in mind?

Admiral LA ROCQUE. Ten years.

Representative SOLARZ. The end of the century?

Admiral LA ROCQUE. Easily. We ought to build the kind of military force that we want.

Representative SOLARZ. Right now, we have—what? 2.2 million?

Admiral LA ROCQUE. 2.2 million.

IMPACT OF DEFENSE REDUCTIONS ON NATIONAL SECURITY

Representative SOLARZ. Assuming a continuation of the trends we have seen, democratization of East Europe, further opening up of the Soviet Union, START and CFE agreements, and a reduction of 1 million men in the size of our army in coordination with comparable reductions on the part of the Soviet Union and Warsaw Pact countries, do you think that that could be compatible with our national security?

General ODOM. You are talking about a 1.2 million reduction, or an end figure?

Representative SOLARZ. Reduction to 1.2 million. It is a 1 million reduction to 1.2 million.

General ODOM. I must say that I cannot imagine a stable world in the year 2000, if the United States is down to that kind of numbers.

Representative SOLARZ. Why not?

General ODOM. There are so many fragmenting forces out there that are going to affect stability.

Representative SOLARZ. Let me ask you.

General ODOM. I would not want to face the uncertainties. I cannot predict with great precision, and I would rather not take the risk.

Representative SOLARZ. What about the concept of reserves and the capacity to mobilize for contingencies that develop.

General ODOM. My experience with the reserves is that they become an outlay cost, and not a very responsive mobilization

factor. And therefore, if I really wanted to cut forces, Army forces, I suspect I would cut the National Guard.

Representative SOLARZ. Leave aside the Persian Gulf for a moment. Let's talk about instabilities in the Third World for which, presumably, you would argue that we need a force in being.

Admiral LA ROCQUE. Only in limited areas.

Representative SOLARZ. Right. But if the cold war is abated, to what extent do instabilities in the Third World require the presence of American troops? For example, if we had not had the cold war in 1950, we never would have become involved with Korea. We would not have liked what was happening, but it was not to stop their government, it was to stop Joseph Stalin.

I can envision a lot of conflicts in South America, South Africa, and possibly the Middle East, where you take them out of a cold war context, and it is not a question of an advancement of Soviet power in the context of the situation where we have to contain the expansion of communism around the world. You know, we can regret it, we try diplomatically to bring fighting to an end, but nobody would seriously suggest that we ought to commit American men and manpower.

General ODOM. I would cite three areas of the world where I do not think those arguments would hold. I would agree with those arguments on large parts of the world, most of Africa, most of South America. But I would not consider it valid for Central America, because of the impact of immigration and the number of other interactions, drugs, et cetera, in Central America. That is not a region that I think that we can take with benign neglect.

I think the dependency on oil in Western Europe, East Asia, and to an extent the United States, from the Middle East Persian Gulf region, means that a certain amount of U.S. potential to project force into that region would have to be maintained.

If the Soviet cold war goes away completely, you can still have radical Marxist-Leninist movements in the Third World. I do not think, if the Soviet Union disappeared tomorrow, that the New People's Army in the Philippines would slow down its activities. I do not think that you would have a major change in Cambodia. I do not think that you would have a major change in El Salvador.

Representative SOLARZ. But nobody is suggesting even now that we send in American forces to deal with the FDA in the Philippines, the Khmer Rouge in Cambodia—

General ODOM. We have a lot of forces on active duty, many uniformed people involved in intelligence communications, which form the backdrop against which our diplomatic and other positions in these countries are managed. I think if we got down to a 1-million-man force level, you would find those severely damaged.

THE END OF THE COLD WAR AND MUTUAL REDUCTIONS

Representative SOLARZ. Admiral La Rocque, let me come at it from a different point of view. How would you respond to somebody who said, "Look, if the cold war really has come to an end and we can get mutual reductions with the Soviet Union, why have 1.2 million? Why not go substantially below that?"

Admiral LA ROCQUE. Well, for two reasons. First of all, even a million-man cut is so large as to stagger the imagination of some people. Second, we will always need some form of a military force.

I would agree with General Odom; we cannot predict with certainty the future. The cold war is over, or we can make the assumption that it is, as you are postulating. After every war, we cut our forces.

At the end of World War II, we had 12 million men under arms. Eighteen months later, we had 1.6 million. After Vietnam, right after Vietnam, we had 3 million men under arms. When the war was over, President Nixon cut them to 2 million.

Now, if this war is over, and we are geared up to fight this war, to deal with it, and it is over, then perhaps we ought to be looking carefully at how we can reduce.

Representative SOLARZ. In the context of an end to the cold war, what would you say America's military needs and requirements in Asia and the Pacific are? Do you think, for example, it would be important to maintain the Seventh Fleet? Do we need to keep 45,000 men in Japan? And if so, for what reasons? Assuming we concluded that the Soviet Union would no longer pose a threat.

General ODOM. We have remarkable stability in Northeast Asia that has been brought about by a militarily weak Japan and a militarily weak China. You are suggesting that those factors have to change, and I think you are right.

As they change, rather than the maintenance of stability, I think you will see increasing instability. One of the problems that will emerge will be Japanese-Chinese competition. Another will be, if the United States begins to pull its forces out, insecurities between the Koreans and the Japanese.

I think Southeast Asian nations, the island nations of the South Pacific, would be very nervous about the reassertion of Japanese power. I think it is a false assumption to believe that the military security structures are discrete and separable from the global economic relationships. I think if you begin to change fairly dramatically some of the security arrangements, you are going to see an impact on the global economy.

Therefore, the notion that there is a guns-butter curve here in the international arena, that we can suddenly move forces out and abandon a lot of these commitments without some impact on the economic relationships—I think we may be unhappily surprised.

OUR MILITARY BUDGET AND THE GLOBAL ECONOMY

Representative SOLARZ. Is it your position that even in the context of CFE and START agreements, and an end to the cold war, that you see no prospect of any significant sort of "peace dividend" as it were, in terms of reduced defense spending? That the continuing uncertainties, the challenges of a complex, unstable world, will require us to maintain a military budget more or less along the lines of what we have now?

General ODOM. Having looked at the issues of economic competitiveness for how they impacted on my former Agency, the National Security Agency, I reached the conclusion that defense dividends will do absolutely nothing for—it would be very little, very trivial.

The major problems are not in the defense area. So we are dealing with what I would call a fairly trivial variable in economic competitiveness.

OUR MILITARY BUDGET AND OUR ECONOMY

Representative SOLARZ. Suppose I put to you the following proposition: in order for us to maintain a strong and competitive economy, there are a whole series of things we have to do. But clearly, on the list is a much better job of educating the young people of our country. That in turn, while it cannot be solved just by money, does require appropriations.

Presumably, if we were really serious about providing a first-class educational system for America, every child in the nation eligible for Head Start would be able to get into a Head Start program, everyone eligible for chapter I remedial assistance would get that, we would have significant adult illiteracy programs. Presumably, if we want to be economically competitive, and we have to rebuild our decaying infrastructure, we are probably talking about \$20 or \$30 billion to repair the roads and the bridges, bring the airports up to snuff.

Now, I do not know what it all comes to, but you could probably put together a program to deal with these underlying economic and educational and social problems that are related to our productivity and competitiveness—let's say, \$100 billion. You know, that money is going to have to come from somewhere.

I am not saying it has to come all from defense; maybe more revenues. Other parts of the budget could be cut, too. But looked at in terms of our national security, wouldn't you say that, at the margin, to take it in the context of an end to the cold war, aren't we better off, if we have to, taking some of that money from defense and using it for these educational and economic programs? In terms of national security.

General ODOM. Congressman, you are not going to like my answer. I hope you will at least chuckle if you do not like it.

I do not think there is the remotest possibility that moneys moved out of the Defense Department would go to the things that you suggest. They will go to all sorts of other transfer payments programs. They will go to S&L bailouts.

You see, that is just that you are proposing, it seems to me, a group of false choices. We could close the whole defense budget down, the whole Defense Department down, and in 2 or 3 years we would be back where we are with tremendous deficits and no real general improvement in our infrastructure.

I heard a former Chairman of the Council of Economic Advisers say not long ago that, while he had opposed Casper Weinberger's large defense budgets, he had come in later years to favor them, because at least there was some trickle down to R&D, not very efficient, this, that, and the other, but some economic effect.

TUNNELING THE "PEACE DIVIDEND" TO TARGETED PROGRAMS

Representative SOLARZ. Suppose we drafted a bill that provided an authorization for the substantial sums that would be needed for educational and economic programs? And suppose we put in the

bill provisions to pay for it through a combination of increases in certain kinds of revenues and some cuts in the defense budget. And leaving aside for the moment what taxes, what cuts, in defense. But conceptually, if this were all put in one thing so that you could say, "Here is \$100 billion for these competitiveness-type educational, economic programs, and here is how we are going to pay for it"—in principle, do you think you could support something like that?

General ODOM. No.

Representative SOLARZ. Why not?

General ODOM. Because I am not sure that more money into some of the programs would generate the outcomes that you are suggesting. I am not sure that that is what is going to make us more competitive in the world. I also would think that some of the educational roles that the military plays would then be reduced. Defense budgets are not a complete loss to the economy.

Representative SOLARZ. You are not convinced that the mere fact that our roads and bridges are crumbling, and our kids are not getting educated, and there are a lot of kids who do not get into Head Start programs or get remedial education, you are not convinced that even if we were to give all of the kids the Head Start, remedial education opportunities, and adult literacy programs, and if we were to rebuild bridges and roads—you are not convinced that that would really contribute to our economic strength?

General ODOM. You are posing it in a highly unrealistic way, which I think you know would not materialize. I am just trying to point out that I think it would not materialize.

Who can be against children having a better education? I am very enthusiastic about that. My question is whether the budgetary allocations you are suggesting are really going to achieve that end. There is a lot of evidence from the past that that is not the case.

Representative SOLARZ. Admiral La Rocque, what would be your view of such legislation?

Admiral LA ROCQUE. I think it would be an excellent piece of legislation. But it goes right to the gut issue that you started these hearings on, and that is: What is national security? If national security really means the political, social, economic, and military aspects of our society, we cannot afford to ignore the first three and put it all onto the military.

On the education point alone, we send our troops to Germany to defend the Germans. And we promise our troops who have to serve 4 years that, if they will serve 4 years, we will let them go to college and help with their expenses.

When our troops get to Germany, what do they find? They find the Germans who serve only 11 months, 13 months, they are in college. They are getting a 3-year headstart on us, because we are sending our troops over there to earn points to go to college, while their kids are in college.

I think we need a balanced society. We are spending \$3 billion a week just to keep our troops in foreign countries and to provide the backup—\$3 billion a week. That is just about equal to our budget deficit, a little more—well, not as much this year.

WITHDRAWAL OF FORCES

Representative SOLARZ. I would say that it is not as if we have not received something for that. I mean, what we witnessed today with Mr. Walesa was in some measure due to the fact that we were prepared to pay that kind of money. Now, we may be moving into a situation where we can contemplate spending much less.

But I assume, Admiral La Rocque, that you would agree—and I do not want to put words into your mouth—I assume you would agree that, as we move toward significant reductions in the defense budget, and perhaps a withdrawal of American troops abroad, if that is in fact what we do, it would be preferable and desirable to do it on the basis of mutuality and negotiated arrangements, rather than unilaterally.

Admiral LA ROCQUE. Yes, absolutely, if that is possible. But when we put additional troops in Europe, as we have done in the last 8 years, we did not ask our allies if that was acceptable. We did not ask the Soviets.

In other words, as we have increased our troops and bases overseas, we have done it unilaterally, on our own initiative. We ought not to give up this right to make unilateral decisions to reduce them when we want to.

Representative SOLARZ. Admiral La Rocque, do you think even if we were to withdraw American forces from—many American forces from Europe and Japan, perhaps all other countries—is it your view that the United States should remain actively engaged in the world, not just economically but politically and diplomatically, trying to shape and influence events?

Or, do you think we are sort of advocating what used to be characterized as an isolationist position?

Admiral LA ROCQUE. Absolutely not. I think we ought to be interventionists. We ought to be intervening in the world everywhere we can, economically, socially, politically, to get our interests. We have the best system of government in the world, and it is worth selling to people all over the world. But if we put so much money into the military and leave that as the emphasis in this new era, we are not going to have the national resources to do it.

If we are going to be the world's leader in the years ahead, we must be strong economically. Right now, our Treasury is broke, flat broke. There is not a penny in it. If we are going to be an influence and a leader in the world, we have to be strong economically.

STATE OF U.S. EDUCATION AND ITS IMPACT ON THE MILITARY

Representative SOLARZ. It seems fairly obvious that a modern military requires a well-educated manpower base. Yet, studies indicate that the state of education in math and the sciences in our country is deplorable, and youngsters from other countries are doing much better.

To what extent, to your knowledge, is this a matter of concern within our own military establishment? And if it is not a matter of concern, should it be a matter of concern?

General ODOM. In the U.S. Army, it was a very serious matter of concern. And in the intelligence areas, it was very much a concern, and one that was talked about and looked at fairly frequently.

For example, in the Army certain weapons systems—if one takes the categories of soldiers based on their scores when they come in, categories 1 through 4, categories 1 and 2 learn to use the weapon very quickly. Category 3, with additional training, learns to use it. Category 4 can train forever, and never really be competent.

In my prepared statement, I made a big point of the analogous development in the military that is occurring in modern industry. It is not cheap labor that industry wants; it is high-quality labor, at almost any price. I think that phenomenon is affecting the military forces. I think you could probably save some money and increase the efficiencies of the way we spend our money if we review the way that we acquire our manpower for military purposes.

I would like to—because of our earlier exchange—I would like to make a point very clear. The use of military power abroad is one issue. Whether we buy it efficiently, or whether we squander the money through the Defense Department, is another issue. I think that the two issues can be separated, and I am against the squandering, but I am for having a fair amount of military capability.

Admiral LA ROCQUE. I would like to say one thing on education. The rash of problems we are having in the Navy, that the Navy has been having in the last few months, I think is directly, or perhaps indirectly, attributable to the fact that we have such complicated equipment on board our ships right now. It is difficult to maintain, even difficult to operate.

That goes back to the poor quality of education. I think it would make a lot of sense for us to have a smaller, leaner armed forces, with much more highly educated people in the armed forces, even if we had to pay them twice what we are paying them now.

CONFIGURATION OF OUR MILITARY AFTER REDUCTIONS

Representative SOLARZ. Admiral La Rocque, can you submit a statement flushing out your concept of 1.2 million men in the military, in terms of how you think it would or ought to be configured, and compare that to what we have now?

I think it would be helpful to get a sense of where these people are that are going to be deployed. How many divisions will we have? How many carrier battle groups? Does this mean taking the Sixth Fleet out of the Mediterranean, or the Seventh Fleet out of the western Pacific? So on and so forth, so that we can compare the kinds of military establishment you envision for America by the end of the century to what we have now, so that we can make some judgments about the capacities that we would be enabled to preserve, and the capacities that we would lose.

IMPORTANCE OF RELATIVE STANDARD OF LIVING TO NATIONAL SECURITY

One final question to each of you. It is possible for the economy of a country to slowly grow, for a standard of living to gradually increase, while at the same time the relative economic standing of the country declines vis-a-vis other nations. I would like to ask you, in terms of our national security, how important do you think it is for us to maintain not our absolute standard of living, but our relative standard of living, vis-a-vis other countries?

I am using "standard of living" very broadly here. But right now, in most categories, one can envision a world in which 50 years from now the average American is living much better than the average American today, but where people in other countries are living even better because those countries have made much greater economic strides. We have sort of lost our competitiveness.

So in terms of national security, how important is the relative standing of our country vis-a-vis the absolute standard of our country?

Admiral LA ROCQUE. There are, as you know, Congressman, many areas where we are relatively better off; but there are many areas where we are not. Just our own mortality rate: we do not live as long in this country as they do in many other countries. Our infant mortality is higher. Our educational levels are much lower in many ways. So we are already slipping relative to other countries.

If we propose—and I would hope that we do—to be the world's leader, because we have so much to offer the world, we have to demonstrate that we have the capability to lead in the areas of education, housing, and health care. We do not even have a health care program for our people in our society that is comprehensive.

We are already falling behind. I think it is extremely important to appear, as well as to be, No. 1 in all of these areas.

General ODOM. I think it is important for us to be fairly close to the top. I am not sure it is important that we match the Swiss, the Swedish, and the Germans, in every detail, in every line. Therefore, I think our economic well-being is terribly important. I made the point earlier that I think that, if we precipitously abandon some of these military commitments, we are going to have a negative impact on the economy in ways we have not foreseen.

I think there is an assumption in the discussions that one ought to challenge, that is, what is spent in the military is a loss to the civilian side, to the economy, and that there is a kind of guns-butter tradeoff. The record of countries worldwide in studies that political scientists and economists have done, shows that a high level of military spending or low levels of military spending do not correlate very closely one way or another to economic growth.

You find some economies spending a lot on the military, with a very dynamic growth rate. You find countries spending very little on the military with a dynamic growth rate, and vice versa.

I think it would be a mistake for the committee to conclude that defense is a very critical variable in the economy and general welfare that you raise today. I quite agree that those factors are part of the national security. There are terribly important. I do not think that we are going to rescue the economy through cutting the defense budget.

Representative SOLARZ. Looking at the question in this way, for any given amount of money you are spending on defense, it seems to be legitimate to ask whether, if you took that money out of the defense budget and spent it on the educational system or the economy, whether that would in fact help to significantly improve the economy.

If you conclude the answer is "yes," then you have to ask one other question. Would the diminution in military spending jeopard-

ize the national security? And a lot of people would say that, "We do not want to do anything that jeopardizes our capacity to defend America from aggression."

But if you live in a world in which that given increment of reduction would not jeopardize your capacity to defend America from aggression or to protect America's vital interest around the world, but would enable you to significantly improve your economic system or your educational system, then presumably if you look at it in those terms it would be worth shifting the resources; wouldn't you agree?

General ODOM. I would agree with that. And I would agree that there are significant resources to be obtained there, not necessarily from overall defense reductions, but by getting better "factor productivity" from what is spent in defense. That problem we do not address very well today.

CONCLUSION

Representative SOLARZ. Let me say, I very much appreciate your taking the time and bearing with us through these inconveniences. I suspect, long after people have forgotten this hearing, they will have remembered that Lech Walesa addressed the joint session of Congress on this day.

But in a certain sense, there is a linkage between the hearings. If it was not for the fact that this extraordinary electrician slipped through the gate to the Lenin Shipyard—which is now the Johnson Shipyard—10 years ago, and set in motion forces which have led to these profound transformations, we would not be holding this hearing today. I think there is a connection.

Let me thank you very much. I am just asking a lot of questions at this point. I have a sense that we need to be asking these questions, and I think we need to start thinking about them, because we are moving into a different world.

Lincoln once said something to the effect that the tired dogmas of the past are not up to the stormy challenges of the future, or some words to that effect; he said it much better. That is the situation in which we find ourselves. Hopefully, this hearing and the others we will be holding will contribute to serious rethinking of American national security, as we approach the 21st century.

Thank you very much.

General ODOM. Thank you for letting us contribute.

Admiral LA ROCQUE. Thank you.

[Whereupon, at 1:02 p.m., the committee adjourned, subject to the call of the Chair.]

AMERICAN ECONOMIC POWER: REDEFINING NATIONAL SECURITY FOR THE 1990'S

THURSDAY, NOVEMBER 16, 1989

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, DC.

The committee met, pursuant to notice, at 10:05 a.m., in room 2237, Rayburn House Office Building, Hon. Stephen J. Solarz (member of the committee) presiding.

Present: Representative Solarz.

Also present: Richard F Kaufman, general counsel.

OPENING STATEMENT OF REPRESENTATIVE SOLARZ, PRESIDING

Representative SOLARZ. The Joint Economic Committee will come to order.

This series of hearings was conceived as a way for Congress to begin looking at the ramifications of the enormous changes that are altering the economic, social, political, and military landscapes of the world. Governance requires us to look before we legislate, and to have vision, as well as eyesight, we must look comprehensively and over the long term.

The problem before us is to anticipate the requirements of the 1990's well enough to at least be moving in the right direction. One cannot overemphasize the importance of the efforts to reform and restructure the economic and political systems in the Soviet Union and throughout Eastern Europe.

Yet, this is only one phase of a process of global change that is unfolding so quickly that many of the consequences are still unknown.

Among the most significant are the accelerating pace of technological advances, the globalization of international business, the increasing U.S. dependency on foreign sources of financing and technology, the rise of international trade and financial imbalances, the persistence of high indebtedness and poverty among many developing nations, the emergence of Japan as an economic superpower and of the four tigers of East Asia as world-class competitors, the steady progress towards a common market in Western Europe and the possible formation of large trading blocs, the global traffic in illegal drugs, and the threats to the global environment.

Of course, presently, the ending of the cold war overshadows everything else. It is apparent, if nothing else happens, that we are at least in a lull. Defense spending on both sides is leveling off or declining and the trend toward further reductions is likely. Soviet

withdrawals from Eastern Europe and the Far East, and the restructuring of their forces along defensive lines, are bound to have effects on the size and structure of our own forces.

There will be immediate and medium-term effects on the U.S. defense industry as the level of defense contracting declines. Some of these effects are already being felt. Yesterday's Wall Street Journal reports that in recent years, 100,000 firms stopped doing business with the military, including 20,000 small firms that went out of business, and that the possibility of a major shakeout of defense companies is being discussed in financial circles.

Of even greater importance are the longer term effects of the wind down of the cold war in the context of the many other changes that are altering the international economy. The question, as I see it, concerns the role the United States plays in the world and whether we can maintain our leadership in it.

In the past, when wars ended, this country did a certain amount of postwar economic adjustment to take into account the need for shifting the economy from a wartime to a peacetime footing. In a prior hearing, Professor Paul Kennedy told us that what is known in some countries as strategic planning is as important in time of peace as in time of war. Some might argue that, without regard to the status of the cold war, it would be necessary for the United States to take steps toward improving its performance, particularly in critical areas of advanced technologies.

Nevertheless, the cold war is winding down and America is faced with what may be the greatest opportunity to reorder its priorities since the immediate post-World War II era.

We have an outstanding panel of economists to help us examine the issues I have raised. Jerry Jasinowski was formerly a senior economist on the staff of this committee, serving under the chairmanship of the late Hubert H. Humphrey, among others. He served as Assistant Secretary of Commerce for Policy during the Carter administration and is now president-elect of the National Association of Manufacturers.

Welcome back.

Lester Thurow, whose plane was diverted to Richmond, but who is, nevertheless, trying to come here, was on the staff of the Council of Economic Advisers during the Johnson administration, taught economics at Harvard University and MIT, and was named dean of the MIT Sloan School of Management in 1987. He is the author of several books, including the "Zero Sum Society" and the "Zero Sum Solution."

Pat Choate is vice president of policy analysis at TRW. Previously, he held several government positions at the State and Federal levels. We're delighted to have him with us today.

Gentlemen, we appreciate your willingness to testify. I'm sure you know I posed a series of questions in the letter of invitation. I gather you have prepared statements. They will be included in the record.

May I suggest that it would probably be best if you could make an oral summary of your views in about 10 minutes. That would leave us the maximum time for questioning.

I'm sure you know that the underlying question we're attempting to address through these series of hearings is what would con-

stitute an adequate definition of our national security in a post-cold-war period? And what do we need to do to make sure that we can protect and promote our national security, as we move into the 1990's and beyond in the context of a diminishing Soviet threat?

To what extent do the economic foundations of our national security become even more important? And if so, how do we need to make sure that we can remain competitive and continue to generate the kind of economic strength which ultimately undergirds, in its most comprehensive sense, the security of our country?

We plan to have a whole series of hearings on these questions, with some of the most thoughtful, informed, and knowledgeable people in the country who have thought about these questions. And so we're particularly delighted you could be with us today.

Mr. Jasinowski, do you want to begin?

**STATEMENT OF JERRY JASINOWSKI, PRESIDENT-ELECT, THE
NATIONAL ASSOCIATION OF MANUFACTURERS**

Mr. JASINOWSKI. Thank you, Congressman Solarz.

I must say that, in politics as in life, timing is everything. You seem to be particularly blessed with a good sense of timing by holding these hearings at this propitious time.

Even if the events in Eastern Europe were not occurring in the extraordinary fashion that they are, we would be moving from a period in which military strategic defense power was preeminent in international affairs, to one in which economic power in a global competitive sense was becoming the dominant theme. And the changes in Eastern Europe simply underline that, Congressman. The first point I will make is that we are now moving into a period in which economic power will tend to be increasingly the dominant part of the equation with respect to the influence of nations in international relations.

In essence, we are moving from a global order which is less polarized between West and East blocs and more polycentric, in the sense of several competing centers of power. The actions that have occurred with respect to the Canadian trade agreement and the whole increasingly integrated North American market is one of these. The movements of Europe 1992 which have been seriously altered by what's going on in Eastern Europe will, nevertheless, make the European Community a second major competing economic power center. And, of course, Japan and the Pacific Rim will still be a third.

But the point is that in all of these three central cases, it will be matters of economic power that will be a principal determinant of the influence of nations in those spheres.

My second point is to define economic power a bit. I would say that it is the capability to effectively act on key economic matters, and that, in today's world, key economic matters consist of four criteria.

One, control over resources and technologies. Or more specifically, the ability to incorporate technological advances into worker training and the production process. And I would underline here that this includes information technology and knowledge, as well as the more conventional capital technologies.

Second, a preeminent position in world markets, typically characterized by competitive advantage in manufacturing trade.

We must trade in this new global environment and we must pay for what we want from the world and be able to compete in those matters.

Third, implied by the above is some specialization of domestic productive facilities in manufacturing and high-tech fields.

Eighty percent of our international trade is in goods, not services. There's no chance that we're going to move to a primarily service global economy, even though it will become increasingly important. And so, manufacturing is critical there.

Fourth, economic institutions that are sufficiently flexible, including our corporations that can adapt to new developments in global markets and respond quickly.

I'm struck, Congressman, by the extent to which we are in a period where corporations must move fast or they fail. It's all well and good to do many things well, but if you don't do them well rapidly you might just as well forget about it.

And if you talk to the chairman of Motorola, for example, he'll explain to you how we are moving parts, technology across the country, across the world in ways which are just unbelievably fast compared to what we did before when we assembled manufactured goods.

My third point, Congressman, is simply to underline the importance of manufacturing in the definition of effective economic power. I think most people have forgotten how critical it is because of the infatuation with the post-industrial-society theme that Daniel Bell put forward several years ago, which was important in terms of highlighting how manufacturing would not be critical for employment, but missed some other important points.

One, manufacturing productivity is three times that of services and is the spectacular success story of the last several years.

Second, about 25 percent of what services sell goes to manufacturing. So combined with manufacturing output, about half of our economic GNP is directly and indirectly related to manufacturing.

Third, about 95 percent of our technology is either paid for or done by manufacturing. It's kind of hard to believe that only 5 percent of the technology in this country comes primarily from services, but that's the case.

All of this has been confirmed and reconfirmed over history, as my testimony points out. The success story of Germany is a success story of focused industrialization. The success story of Japan is the same. These countries have become great economic powers because they began a process whereby they were gradually manufacturing better than we, and fortunately, we've begun to address that.

My fourth point is to comment briefly on whether or not there's been a decline in America's political and strategic position. With respect to politics, I would say it's pretty obvious there has not been. We are today politically better off than we've been since the early 1960's, in terms of our general perception and prestige around the world.

That's not to say we haven't made some major mistakes in the last couple of decades, but our political prestige at this point is quite high.

Economically speaking, I think that the Kennedy thesis, as I understand it, that there is a decline in America, or a potential decline, because there is excessive spending on defense just doesn't hold. In fact, that holds more for the Soviet Union.

The only decline I see—because I'll report in a moment on some very important productivity gains—is a decline in American trade competitiveness and increasingly, dependence on foreign debt to finance the balance of payments. That is, I think, a concern presently and for the future of significant magnitude.

My fifth point, Congressman, is to simply report to the committee the extraordinary improvement in manufacturing productivity as still another sign of the comeback in that sector and a reason to say, we're really pretty well off in many respects in our competitive position on the productivity front.

The numbers that you'll see there in my prepared statement show that we have moved from a period in which, in 1948-73, manufacturing output per worker was 2.8 percent. In the period of 1973-79, because of OPEC and a variety of other miscalculations on the part of American corporations and governments, we declined to an annual rate of 1.4 percent. And since 1979 through 1983, we have had an annual increase in productivity, Congressman, of 3.3 percent, significantly higher than the 1948 to 1973, and really a remarkable success story due to everything from a decline in energy prices, to cost cutting on the part of manufacturing, fairly substantial investments, and just, I think, some cyclical improvement.

That's not to say that there are not productivity problems in certain American industries. There are. But the numbers, in aggregate, are quite strong.

Turning to my sixth point, competitiveness, I would stress our trade problems as the principal sign of a deterioration in American economic power. And while we have made substantial progress on that, and today's trade report reflects a further significant improvement in manufacturing trade, with a decline to a merchandise trade deficit of \$7.9 billion, nevertheless, over the last several years, we've had a significant deterioration in our trade and that, in turn, has been caused primarily by exchange rate problems.

And if you look through this testimony, Congressman, I think one of the things I hope to convince the committee is that the deterioration of nation-state competitive positions in Britain and across our recent history is a result of exchange rate mistakes which often underline more fundamental problems in terms of the country, such as excessive budget deficits, interest rates that are too high, and so forth.

But the point is that this trade problem, which is about two-thirds explained by exchange rates and explains most of the deterioration of declines of nation-states in the 20th century, is a major long-term competitive problem.

Let me finish, Congressman, with policy priorities.

I argue in the prepared statement that we ought to put our policy in global terms, in that we ought to look at trade and exchange rates just as we look at inflation rates, growth rates and unemployment.

I, frankly, don't think we're going to get very far in terms of being globally more sophisticated and responsive if we do not put a

major international cast on the way we look at economic policy in this country.

Beyond that, I think that I would join with others in stating how important it is for a national commitment to education and how we need to invest more in human capital, physical capital, et cetera. But I think most of those things have been said before, and while I support them, I think the importance of my testimony is to say that we really must focus on the international dimensions of economic policy in an altogether new way if we're going to be fast moving and successful in this period when economic power will be the primary determinant of our future success and destiny.

Thank you, Congressman Solarz.

[The prepared statement of Mr. Jasinowski follows.]

PREPARED STATEMENT OF JERRY JASINOWSKI
 COMPETITIVENESS, ECONOMIC POWER AND PRODUCTIVITY

EXECUTIVE SUMMARY

1. The New Emerging World Order. The most important strategic development in the last few years has been the abandonment by the Soviet Union of its aggressive foreign policy, and the resulting de-fusing of tensions between the superpowers. Consequently, in the 1990's there will be less overt military-strategic competition between the United States and the Soviet Union. The implication is that the role of military power in the strategic balance will tend to diminish, while the role of economic power will tend to increase. In essence, we are witnessing the evolution of a new global order which is less polarized between the East and West blocs, and more "polycentric", in the sense of several competing centers of power. Economic competition will increasingly not be between capitalism and communism, but among rival groups of capitalist countries — the United States, Western Europe, and an increasingly industrialized Pacific Basin. Political prestige and influence will in turn depend much more directly on the results of this economic competition.

2. Economic Power This involves: 1) Control over resources and technologies, or more specifically the ability to incorporate technological advance into worker training and the production process. 2) A predominant position in world markets, typically characterized by comparative advantage in manufacturing trade. 3) Implied by the above is specialization of domestic productive facilities in manufacturing and high-technology fields. 4) Economic institutions that are sufficiently flexible that they can adapt to new developments in global markets and can respond rapidly to changes.

3. Significance of Manufacturing Historically, manufacturing has been a key element in the achievement of strategic-military and political as well as economic power. Moreover, manufacturing will be the key element in determining economic power during the 1990's. In this respect, manufacturing generates the bulk of increases in productivity, primarily because it is by nature more capital-intensive. Similarly, a greater proportion of R&D and technological advance takes place in manufacturing. This in turn leads to the development of new products which confer comparative advantage in world trade and give the economy much of its dynamism. Further, specialization in manufactured goods conveys inherent advantages in world markets, due to their higher terms-of-trade.

4. Has A Decline Taken Place? We find little evidence to support the view that the United States has declined in a strategic sense because of excessive military spending. However, there is ample evidence that the long-term overvaluation of the dollar under Bretton Woods and the appreciation of the dollar in 1980-85 did considerable damage to industrial competitiveness. The implication is that prolonged overvaluation of the exchange rate will inevitably lead to the crippling of industrial exports and erosion of the domestic industrial base through import penetration. Hence, a realistic exchange rate is essential to maintaining industrial prosperity and economic world power status.

5. Productivity While productivity declined substantially during the 1970's, manufacturing productivity accelerated above its postwar trend during the 1980's. This was attributable to rising capital intensity, cost control and increased efficiency in industry, lower world energy prices, and application of new technologies to the production process. Further, we would suggest that in the 1990's, output growth will be based to a greater degree on capital intensity and technological advance, implying faster growth in aggregate productivity.

6. Competitiveness The United States lost competitiveness during the 1980's primarily because of the overvalued exchange rate. While there have been recent improvements due to the lower dollar, the problem is by no means solved, and large trade deficits will persist into the 1990's if exchange rates remain at current levels. Indirectly, the level of the exchange rate and the need to rely on capital inflows both trace back to inadequate individual saving and government dissaving caused by the Federal fiscal deficit.

7. Policy Priorities The main priority will be to achieve a more realistic value for the dollar. In this respect, a lower exchange rate requires a more restrictive fiscal policy and a somewhat looser monetary stance. Policy makers in general need to substantially change their thinking about trade, given the new competitive realities. Trade and the exchange rate should become explicit goals of macroeconomic policy. Any regulatory or benefit-related programs should include "competitiveness impact statements" to gauge their impact on trade-sensitive industries. A national commitment to effective education is also essential. For its part, the private sector needs to invest more in product quality and international marketing, and develop organizational structures that will enable it to respond flexibly to changing market conditions.

1. INTRODUCTION

These hearings focus on productivity and competitiveness under the general aegis of economic power. A link between productivity and trade competitiveness is sometimes taken as axiomatic. While productivity may influence the relative price of tradables, competitiveness in international markets may be influenced by any number of other factors, ranging from exchange rates to savings rates and macro-economic policy. Further, productivity is frequently interpreted as a measure of domestic economic efficiency and is therefore equally relevant to sectors that do not engage in international trade. These subject areas therefore warrant a separate treatment. Accordingly, we begin with some definitions of economic power. We then examine whether the United States can be said to have declined, and move on to a more detailed discussion of the recent productivity and trade numbers.

2. ECONOMIC, INDUSTRIAL AND POLITICAL POWER

In order to distinguish economic from political power, we propose the following definitions. Political or military-strategic power rests on the following factors: 1) Ability to mobilize armed force in sufficient volume to deter aggressors or project political influence; 2) Securing a network of alliances in order to multiply the volume of armed force and gain access to the resources of other countries; 3) Attaining sufficient prestige in world affairs that other countries voluntarily cooperate with foreign policy objectives.

The notion of economic power rests on somewhat different attributes. Specifically, economic power involves: 1) Control over resources and technologies, or perhaps more specifically the ability to incorporate technological advance into the capital stock, and train a labor force that is sufficiently skilled to sustain

the process of technical progress. 2) A predominant position in world markets, typically characterized by a comparative advantage in manufacturing trade and continuous gains in industrial exports. 3) Implied by the above is specialization of domestic production facilities in manufacturing and high-technology fields. 4) Economic institutions that are sufficiently flexible that they can adapt to new developments in global markets and can respond rapidly to changes such as introduction of new technologies, price disturbances and trade tensions; in this sense, rigidly ossified bureaucracies may tend to reduce a country's economic power by inhibiting its ability to respond to unforeseen circumstances, while efficient, entrepreneurial firms and government institutions responsive to changing conditions enhance its position in world markets.

There is of course a linkage between industrial and military-strategic power. Industrial capacity is critical to being able to build military capability. In this sense, a prerequisite to becoming a major military power has been the existence of a sufficiently large industrial base to sustain the costs of producing arms and maintaining an army. Similarly, technology has always been a factor in strategic power: control over the most modern military technologies has often been a deciding factor in warfare, as well as in the strategic balance during peacetime. Finally, in a more general sense, economic power is critical to strategic security in the sense that industrial prosperity and control over resources are a key component of national prestige and global influence.

This fact will assume increasing importance during the coming decade. Perhaps the most important strategic development in the last few years has been the abandonment by the Soviet Union of its historic aggressive foreign policy, and the resulting de-fusing of tensions between the superpowers. Consequently, in the 1990's there will be less overt military-strategic competition between the United States and the Soviet Union. The implication is that the role of military power in the strategic balance will tend to diminish, while the role of economic power will

tend to increase. In essence, we are witnessing the evolution of a new global order which is less polarized between the East and West blocs, and more "polycentric", in the sense of several competing centers of power. Economic competition will increasingly not be between capitalism and communism, but among rival groups of market-oriented countries — the United States, Western Europe, and an increasingly industrialized Pacific Basin. Political prestige and influence will in turn depend much more directly on the results of this competition.

In order to stress the linkages between economic and political power, it is useful to digress briefly to prior historical epochs. As early as the seventeenth century, military-political dominance in Europe gravitated toward France and England, away from the declining Spanish empire, because their economies were more specialized in manufacturing. Spain's access to precious metals from its South American colonies was ultimately less important than France's industrial exports, built through mercantilist policies, and Britain's commercial and naval fleets. Specialization in manufacturing enabled even small countries to achieve considerable economic power: during this period, the Netherlands became the world's wealthiest mercantile trading nation.

During the nineteenth century, the leading industrial countries — France, England, Germany, the United States and Japan — carved up much of the world into colonial empires, or reduced their underdeveloped neighbors to a state of satellitic dependence. The less-developed countries that were able to retain their political independence — Southern Europe and Latin America — were reduced to economic satellites, exporting primary products at low prices and importing higher-priced manufactures. While other countries — Russia and Austria-Hungary — were military powers, they remained economically underdeveloped. This weakness that was underlined during the First World War. The Austro-Hungarian monarchy could not sustain the war on the Eastern front because it did not possess the industrial might to supply its troops; even with its largest ally in disarray, however, Germany did

possess the superior industrial capacity that enabled it to defeat the numerically larger Czarist armies. In the latter stages of the war, Russia and Austria-Hungary were nearing civil collapse, while Germany, France and Britain were still fighting on the western front.

Of countries that started out at a disadvantage during the industrial revolution, the most successful — Japan and Germany — followed strategies of building up their industries, frequently through extensive governmental support. Germany did not actually unify until 1871, by which time England had over 40 years of industrial growth behind it. Nevertheless, by the 1890's Germany had overtaken Britain and France to become the leading economic and political power on the continent. Japan remains the archetypal case of a nation that converted itself from an agricultural backwater scarcely advanced from feudalism to an economic power with a colonial empire and a powerful military apparatus within a generation, primarily by following a policy of forced industrialization. Although Japan did not industrialize systematically until the 1870's, by the turn of the century it had become powerful enough to defeat Russia in their 1905 war.

MANUFACTURING AND INDUSTRIAL POWER

The reasons why comparative advantage in manufacturing has tended to convey economic (and indirectly political-military) power are readily apparent.

- o Specialization in manufactured goods conveys inherent advantages in world markets, due to their higher terms-of-trade. In this respect, manufactures account for over 80% of American overseas trade.

- o A greater proportion of R&D — about 94% of private research — and therefore technological advance takes place in manufacturing. This in turn leads to the development of new products which confer comparative advantage in world trade and give the economy much of its dynamism.

o Manufacturing generates the bulk of increases in productivity, primarily because it is by nature more capital-intensive.

o Finally, non-manufacturing activities such as services and primary-extractive industries are indirectly dependent on manufacturing for their markets. About 25% of total spending on services is generated by the manufacturing sector.

3. HAS A DECLINE TAKEN PLACE?

Given these definitions, it is worth investigating whether the United States has undergone a secular decline in its political or economic power. In a political-military sense, there have been some undeniable reverses: the Vietnam War, the post-Vietnam decline in defense spending, the 1979 Iran crisis and the 1983 setback in Lebanon. These were of course reverses rather than defeats: the fundamental structure of American strategic security always remained intact. Rearmament in the 1980's counteracted some of the impression of military decline that had emerged in the wake of these setbacks. The most important development for American strategic-military preeminence in the 1980's, however, has been the change in the Soviet Union's foreign policy to an ostensibly less aggressive stance, following its own debacle in Afghanistan. With the Soviet Union undergoing a period of involution as it concentrates on economic reforms rather than foreign expansion, and with Eastern Europe undergoing political turmoil that could lead to the effective disintegration of the Warsaw Pact, the United States is better off in a political-strategic sense than at any time since the early 1960's.

The question of economic power is more complicated. In recent years, a myth has emerged that the United States was dominant in world markets in the early postwar era, but that this dominance was gradually eroded by a deterioration in competitiveness caused by low productivity, culminating in the 1970's. On closer

examination, it becomes apparent that this whole argument rests on a misreading of the evidence. To begin with, the United States never was a dominant trading power. Instead, as a result of the Bretton Woods system, the United States effectively overvalued the dollar for a quarter-century, virtually shutting itself out of world markets. To some extent this was deliberate: the United States agreed to fix the dollar to gold and serve as the world's international reserve country in part to facilitate recovery among the Allies. Unfortunately, as other countries recovered from postwar financial instability and fixed their currencies to the dollar, they frequently did so at exchange rates that gave them a comparative advantage in world trade. There were of course long lags involved in this process: Japan and Germany were not major industrial exporters in the late 1940's, and it was difficult to see that at the exchange rates then agreed-on they would later be able to dominate world markets.

Nevertheless, from the early 1950's onward there was mounting evidence that exchange rates were fundamentally misaligned. American industry remained largely autarkic, with exports of industrial goods growing much more slowly than in the other industrial nations. Evidence of the impact of the overvalued dollar is provided by the fact that net exports were in deficit almost continuously from 1959 until the mid-1970's, with merchandise net exports showing deficits as early as the mid-1950's. Moreover, the fact that the American economy loomed large relative to the rest of the world in the late 1940's should not be misinterpreted as indicating dominance in international trade: this was a temporary artifact of the destruction wrought by World War II.

In essence, the thesis that a loss of competitiveness occurred in the 1970's following a long position of dominance is not tenable. Instead, the loss of competitiveness took place much earlier and was caused primarily by the Bretton Woods dollar. In this respect it is significant that in the 1970's, the United States achieved a major improvement in competitiveness by devaluing. Despite the

much heralded drop in productivity, the successive devaluations of the dollar in 1973 and 1978-80 produced massive export booms in 1973-74 and 1979-81 that led to a significant increase in the world market share of American manufacturing.

Interestingly enough, the American experience was closely paralleled by that of England, which also sacrificed economic power for military power at Bretton Woods, and kept the pound overvalued for more than twenty years. This virtually insured that Britain would become a weaker economic power in postwar Europe. By comparison, Germany rose from defeat to become Europe's preeminent economic power in part because of the long-term undervaluation of the mark, which enabled it to become one of the world's largest industrial exporters. Similarly, Japan's reindustrialization after World War II was propelled in large measure by the undervaluation of the yen.

The conclusion that follows from this overall experience has considerable implications for the policy agenda today. A policy of prolonged overvaluation of the exchange rate will inevitably lead to the crippling of industrial exports and erosion of the domestic industrial base through import penetration. Hence, a realistic exchange rate is a prerequisite to maintaining industrial prosperity and economic world power status. Perhaps one of the most serious policy mistakes that the United States has made lies in its tendency to tolerate long periods of overvaluation. Pressure to devalue the dollar had emerged even before the Eisenhower Administration left office, but successive presidents refused to avail themselves of this option until the Nixon Administration concluded that the dollar was untenable. More recently, the Reagan Administration initially responded to the 1981-85 appreciation of the dollar by denying that it had any significance, and only agreed to lower the exchange rate after trade deficits reached unprecedented levels.

It is also germane at this juncture to address the intriguing thesis recently proposed by Harvard historian Paul Kennedy, that the United States is experiencing or will experience the fate of other empires which declined economically because of

the costs of maintaining military hegemony. Some of the evidence cited in support of this claim is merely the relative decline of the United States in the 1950's following the recovery of the Allies, which were of course deliberately rebuilt with American assistance in an effort to expand the strategic power of the industrial democracies. A case can be made that the rearmament of the 1980's did contribute to the emergence of the larger trade gap, primarily by increasing the fiscal deficit. Nevertheless, it was not the main cause. The increase in the structural fiscal deficit during the 1980's was accounted for by several factors, the individual component of the ERTA tax reductions, the loss in revenues implied by the 1981-82 recession, rearmament, and the failure to curtail domestic spending, particularly on indexed transfer payments. The military buildup in and of itself accounted for perhaps one-fourth of the total increment in the structural deficit. Parenthetically, it should be noted that the ERTA tax reductions for corporations did not generate any long-term loss in revenue because they were later offset by the 1986 Tax Reform Act. In static terms, corporations will pay more tax in 1990 than if ERTA had never been enacted, while individuals will pay \$260 billion less.

In sum, Kennedy's thesis seems dubious as applied to the United States during the last two decades. It may however be of much greater relevance to the Soviet Union, where the costs of maintaining a massive military establishment have contributed to chronic economic problems. Widespread evidence of serious economic problems in the Soviet Union — shortages and distortions — coupled with the unprecedented williness of the Soviet leadership to try to reform the system that has been in place for a half-century, seems to reflect the results of an excessively aggressive foreign policy. The Afghanistan War, like the Vietnam War, was paid for largely by budget deficits and financed through money creation, with the result that many of the Soviet Union's current economic difficulties are attributable to the effects of a wartime inflation suppressed by price controls.

In sum, the evidence argues strongly that there has not been any secular

decline of the United States, whether political or economic. There have of course been strategic setbacks and economic problems, some of the latter being fairly serious. In particular, we see the trade deficits of the 1980's as constituting a major threat to domestic industry. This threat is particularly serious in view of the anticipated changes in the world strategic order during the 1990's.

4. THE EMERGING GLOBAL ORDER

Recent events in Eastern Europe signal an end to the bipolar strategic environment that characterized much of the postwar era, and call for a rethinking of the American role in world affairs. As noted earlier, we believe that the 1990's will be characterized by diminished military rivalry between the superpowers, and increased competition among regional economic groupings. In essence, the locus of strategic power will increasingly move from being military and bipolar to economic and multipolar.

There was evidence that the world was evolving in this direction as early as the detente initiatives of the early 1970's. However, the unwillingness of the then-conservative Soviet leadership to abandon a basically aggressive and militaristic foreign policy posture led to widespread disaffection with detente, which was perceived in the West as acquiescence to Soviet dominance. Within the last year, however, it has become apparent that the Soviet position is one of retrenchment in the face of strategic weakness: the communist countries are increasingly making political and military concessions in an effort to deal with intractable economic problems.

With the military threat from the Eastern bloc much diminished, the trend toward economic competition among capitalist countries that was already visible in the 1980's should become one of the major determinant of global politics. Specifically, we see the world economy as increasingly divided into three major

powers. The United States, while retaining its role as the world's leading military power, will increasingly redirect its resources toward economic matters. European integration in 1992 will effectively create a unified market roughly one-third larger than the United States. The economic power of Europe will be enhanced if East and West Germany reunite, or if countries politically linked to the Soviet Union (Hungary, Poland, Czechoslovakia) shift their trade ties to the West. Finally, the Pacific Basin has begun to emerge as a regional economic power, although it is more politically fragmented than Europe or North America. In the Pacific, Japan remains the dominant industrial power, and because of its massive trade surpluses, it has acquired the reserves to become a major international creditor. South Korea and Taiwan have now advanced to the status of middle-income industrial countries, with much of their trade concentrated in manufactures. Asian city-states such as Singapore and Taiwan have emerged as major financial centers and ports through which much of the region's trade is routed.

Under the circumstances, competition is likely to be formidable, not only in goods trade but also in financial markets and in commercialization of technologies. In order to deal with this new, highly competitive environment, several changes in American political and economic thinking will be necessary. Among them, the United States will have to set aside the Cold War ideology that was prevalent as recently as the Reagan Administration, and begin thinking in terms of a more complex, multilateral balance of power. At the same time, both the public and the private sector will have to be flexible enough to respond to changing conditions in the world economy. Macroeconomic policy will have to focus more on trade performance as an explicit national objective. Individual firms will have to think more in terms of competing in export markets and competing against the foreign presence in the United States, primarily by improving quality, service and marketing. Bearing the above in mind, we now turn to a more detailed discussion of recent developments in productivity and international trade.

5. PRODUCTIVITY

A review of the recent data indicates that the United States successfully reversed the decline in manufacturing productivity during the 1970's. The following chart gives the growth rates of labor and multifactor productivity for nonfarm business and manufacturing. Multifactor productivity is defined as output per unit of both capital and labor inputs — in other words, it is the component of output that is not accounted for by additions of capital and labor.

Over the period 1947-73, labor productivity in manufacturing grew by 2.8% per year, while multifactor productivity (output per hour less capital intensity) grew by 2.0%. The next two sets of figures are for the two most recent business cycles, 1973-79 and 1979-88, beginning each time at the cycle peak. In 1973-79, labor productivity in manufacturing slumped to 1.4%, while multifactor productivity fell to 0.5% annually. However, in 1979-87, labor productivity grew by 3.3% in manufacturing while multifactor productivity grew by 2.6% per year. In other words, during the most recent business cycle, the growth rate of labor and multifactor productivity in manufacturing not only recovered from the decline of the late 1970's, but actually accelerated above its postwar average. As a result, manufacturing productivity in the United States grew only slightly less rapidly than in Japan and Germany, while surpassing the growth rates in Canada, France, England and Italy. These figures are all the more remarkable in view of the fact that this period spans a three year period of slack in 1980-82.

	1948-1973	1973-1979	1979-1988
<u>Private non farm business</u>			
Output per hour of all persons	2.5	0.5	1.2
Multifactor productivity	1.7	-0.1	0.5
<u>Manufacturing</u>			

Output per hour of all persons	2.8	1.4	3.3
Multifactor productivity	2.0	0.5	2.6

The widely discussed post-1973 slowdown in productivity is generally attributed to the combined impact of the successive OPEC shocks and the resulting contraction in overall economic activity. This interpretation has been corroborated by extensive econometric research, but it is also suggested by a simple inspection of the data: on a yearly basis, most of the drop in productivity occurred in 1974-75 and 1979-80, coinciding exactly with the repeated increases in world energy costs and the resulting recessions.

While the dramatic surge in productivity in the 1980's coincides with the cyclical recovery, it is significant that manufacturing productivity actually increased during the 1981-82 recession, indicating that non-cyclical factors played a role. The surge in labor productivity is of course explained in part by capital-labor substitution: investment in manufacturing grew more rapidly than during postwar recoveries, while manufacturing employment remained about 1.6 million below its 1979 peak. The multifactor productivity gains reflect a series of additional causes: technological advance, particularly the increased computerization and automation of the production process, draconian reductions in overhead costs by manufacturers, and lower world energy costs due to OPEC's inability to maintain the price. In sum, the United States seems to have fully recovered from the manufacturing productivity slowdown of the 1970's.

The question naturally arises as to why the gains in manufacturing productivity have not been matched by comparable increases in aggregate productivity. Some improvement is clearly visible in the statistics. In the private nonfarm economy, labor productivity grew by 2.5% per year in 1948-73, fell to 0.5% annually in 1973-79, and rose to 1.2% in 1979-88. Multifactor productivity grew by 1.7% in 1948-73, declined by -0.1% per year in 1973-79, and recovered to 0.5% per year in

1979-88. To a large extent, however, low aggregate labor productivity is simply the counterpart to the large increase in service employment. Services are inherently more labor-intensive, and low real wage growth during the 1980's made it relatively attractive to grow by additions of labor. The failure of multifactor productivity to increase more rapidly in the private nonfarm economy on the other hand may have to do with the fact that the energy price declines and technological advances that benefited manufacturing productivity are inherently less likely to be manifested in service sectors.

While aggregate productivity has not recovered as well as in manufacturing, it is possible that this problem will be substantially reduced during the 1990's. Although this is by no means guaranteed, we believe it possible to achieve a substantial increase in aggregate productivity growth during the coming decade. This follows from our forecast that the economy will grow somewhat more rapidly during the 1990's than during the last decade, and that this growth will consist to a much greater degree of capital investment and technological advance rather than of labor inputs.

Labor inputs during the 1990's should increase somewhat more slowly than during the 1970's and 1980's, due to slower labor force growth. Capital spending will be subject to conflicting influences. As estimated in a recent study by the New York Federal Reserve [McCauley and Zimmer (1989)], the cost of funds in the United States is generally higher than in the other industrial nations. The 1986 Tax Reform Act increased the user cost of capital by removing the investment tax credit and raising the effective rate on capital gains; internal NAM estimates are that the loss in real business fixed investment was in the range of \$70 billion in 1986-88.

Nevertheless, at the same time, the user cost of capital has been lowered by the falling relative price of computers and office automation. Similarly, increasing demand for American manufactured goods in world markets, particularly capital equipment, implies a need for additional capacity in the United States.

Finally, pressure from foreign suppliers in import-competing industries has led American industrialists to rationalize and raise productive efficiency by investing more heavily. Side-by-side with increasing capital investment, we project that the rate of technological advance should increase due to increasing commercialization of new technologies and the increased availability of computers and data processing capacity.

On this basis, our econometric estimates for the growth of private non-farm output and its components for the 1990's vis-a-vis the 1980's are as follows.

	<u>1979-88</u>	<u>1989-98 (Forecast)</u>
Labor Hours	1.4	0.8
Capital Stock	0.9	1.4
Multifactor Productivity	0.5	0.9
Private Nonfarm Output:	2.8	3.1

While the implied gain in multifactor productivity is substantial, the implied increase in labor productivity is even greater: it would have to more than double in order to achieve the growth rates projected here. This prediction is based on sustained increases in capital intensity, the assumption of no repetition of the energy price increases, a more stable business cycle, and technological spillovers from the revolution in data processing which should be increasingly be reflected in services.

6. COMPETITIVENESS

The United States underwent a massive decline in its international trade competitiveness during the 1980's. Starting in 1983 net exports showed large deficits, culminating in the \$137.5 billion shortfall in 1986. The situation in merchandise trade was even worse, with the 1986 merchandise deficit reaching \$168.6 billion.

Using conventional statistical techniques, it is possible to analyze the contribution of various causes to the trade deterioration. Somewhat more than half the variance of exports and imports is a direct function of the exchange rate; in the 1980's, over 50% of the trade deterioration was caused by the overvaluation of the exchange rate in 1980:4 to 1985:1, when the dollar appreciated by over 60% on a multilateral basis. The second major cause was the growth in demand in the United States relative to its trade competitors; this accounts for about one-third of the deterioration. The remainder — 10% to 15% of the total variance — is accounted for by other factors such as product quality and trade barriers. The effect of the exchange rate on manufacturing production and employment was substantial: the appreciation of the dollar in the early 1980's was responsible for the loss of 1.3 million manufacturing jobs in 1980-84, with the bulk of the losses occurring in durables industries such as primary metals and non-electrical machinery (Branson and Love (1986, 1987, 1988)).

Indirectly, the causes of the trade deficit trace back to the overly expansionist stance of fiscal policy. Because structural fiscal deficits are expected to persist well into the 1990's, it is worth emphasizing this point. The proximate cause of the appreciation of the dollar in 1981-85 was the increase in real interest rates in the United States relative to rates overseas; the IMF has estimated the differential in real long-term interest rates between the United States and Europe to have averaged over 300 basis points at this time. A significant component of the increase in interest rates was attributable to the structural fiscal deficit. Econometric estimates [eg. Hoelscher (1986), Feldstein

(1986a)) conclude that the fiscal deficit caused long-term interest rates to rise by 200 to 290 basis points in 1981-85. Using this estimate, it is possible to gauge the impact of the fiscal deficit on trade. The increase in the structural deficit was indirectly responsible for as much as two-thirds of the appreciation of the dollar in 1981-85 [Feldstein (1986b)].

Another way to look at the relationship between fiscal deficits and the trade imbalance is through the Investment-Savings Identity. In the national income accounts, investment (I) must approximately equal gross savings (S) plus net foreign investment, i.e., the deficit on the balance of payments (BP). In other words, $I = S + BP$. (Intuitively, this makes sense because investment must be financed either from domestic savings or by borrowing from abroad, which implies a deficit on balance of payments; thus when $I > S$, BP must have a negative sign.) For the last few years, investment has consistently exceeded savings, in part because individual savings have fallen, but more importantly because the government's deficit constitutes net dissaving. The combination of a low private savings rate and a high level of public sector dissaving has meant that in order to simultaneously satisfy the borrowing needs of the Federal government and pay for business fixed investment, it has been necessary to rely on capital inflows, forcing the balance of payments into deficit. The accompanying table summarizes this relationship.

SAVINGS, INVESTMENT, EXTERNAL BALANCE

(Billions of Current Dollars)

	1986	ANNUAL LEVELS 1987	1988	FORECAST 1989
1) Gross Savings	537.2	560.4	643.0	698.6
Gross Private Sav.	681.6	665.3	731.0	765.0
Personal Saving	121.7	104.2	147.0	163.9
Corporate Saving	560.0	561.1	584.0	601.0
Govt. Surplus or Deficit(-)	-144.4	-104.8	-88.0	-66.4
Federal	-205.6	-157.8	-142.0	-128.6
State & Local	61.2	59.2	54.0	62.2

2) Gross Pvt.				
Domestic Invest	666.0	712.9	765.5	812.6
Net Foreign Inv.	-142.4	-160.6	-134.5	-128.6

Gross saving is the sum of personal saving plus corporate savings in the form of undistributed profits, capital consumption allowances, and the inventory valuation and capital consumption adjustments. Net foreign investment, i.e., the deficit on balance of payments, is equal to net exports in current dollars less transfers to foreigners, i.e., service on the external debt.

Because of the devaluation of the dollar in 1985:2 to 1987:4, there has been a significant trade improvement beginning in 1987. Merchandise net exports gained by over \$30 billion in 1988; as of mid-1989, net exports had improved by an additional \$20 billion, and we are currently forecasting a gain in the area of \$25 billion for the year as a whole. Nevertheless, the trade deficit remains extremely high by historical standards, and the outlook for 1990 and beyond remains less sanguine. Our projections suggest that unless there is either a further decline in the dollar or an increase in global demand for American exports, the merchandise trade balance will show deficits of \$100 to \$110 billion per year in the early 1990's. Real net exports (expressed in constant 1982 dollars) will show a persistent deficit in the area of \$50 to \$60 billion per year.

More specifically, there are several factors hampering a further trade improvement. First, savings will remain chronically low. At the current time, the Federal fiscal deficit stands at 2.5% of GNP, and is unlikely to fall significantly below 2% of GNP for the next few years. Individual savings should show some increases as the population ages, but will remain low by international standards. Corporate saving, which increased in the early 1980's due to accelerated depreciation, will decline over the next few years, offsetting savings gains elsewhere. Consequently, savings will continue to lag behind investment, implying persistent balance of payments deficits.

Second, since its trough in 1987:4, the dollar has appreciated for about two years, making it approximately 15% higher in multilateral terms. The main cause had

to do with the rise in interest rates in the United States since 1986, which in turn traces back to the combination of faster growth and restrictive monetary policies. Speculative factors and greater political stability in the United States may also have contributed to the dollar's rise.

A third problem has to do with the fact that the geographic improvement in trade has so far been very uneven. The United States has succeeded in redirecting its exports to Europe, largely because of the more favorable exchange rate. However, it has had less success in penetrating the markets of Japan and the Pacific Basin countries. Although the dollar is now about 40% lower against the yen than at its peak in 1985, Japan has continued to protect its domestic markets through such devices as agricultural tariffs, legal impediments to foreign bidding on public works projects, and other regulatory barriers. South Korea and Taiwan have also resorted to protectionist measures, although in the wake of political pressure they have recently agreed to dismantle these barriers. The Pacific Basin countries have attempted to peg their currencies to the dollar, with the result that the realignment in the exchange rate against these countries has been considerably smaller. Finally, due to the ongoing debt problems in Latin America and the internal disarray in OPEC, the United States has yet to regain its historic export markets in either of these regions.

7. POLICY PRIORITIES

A Global Perspective In general, we believe that the whole process of policy making in this country needs to take greater account of global economic factors. In most of the industrial countries, which are considerably more open than the United States, policy makers have typically devoted much more attention to trade issues than has been characteristic here. In Europe and Japan, the exchange rate, the volume of exports and the balance of payments have been explicit targets of policy.

By comparison, in this country these indicators have often frequently been treated with benign neglect. This neglect, however, is no longer as benign as it once was, since the United States is no longer in a position where it can languish in a kind of "splendid isolation" on economic issues. Hence Congress and the Administration should pay more explicit attention to the trade consequences of their legislative initiatives. In essence, both policy makers and the private sector will have to abandon autarkic thinking, and incorporate trade goals as a leading component of their decisions. In this policy area, this must necessarily involve greater attention to the exchange rate, and a greater willingness to subordinate domestic social objectives to trade priorities.

Exchange Rate Policy Keeping the exchange rate at a level commensurate with trade competitiveness should be a major goal of macroeconomic policy.

Contemporary theory on exchange rates holds that on average, currency movements are primarily determined by differentials in real interest rates. We acknowledge of course that while this is the main factor, it is not the only one, and that in the short run exchange rates may deviate considerably from the range implied by interest rate differentials. Nevertheless, the implication is that fiscal and monetary policy should explicitly aim at interest rate levels that are commensurate with exchange rate goals.

Short-term intervention in foreign exchange markets can be a useful tool for minimizing short-term speculative movements in exchange rates. Unfortunately, it is not really a substitute for macroeconomic fundamentals. While intervention can induce short-term discontinuities in exchange rate movements, ultimately intervention against the market — or unsupported by changes in macroeconomic fundamentals — tends to be ineffectual. In order to bring the exchange rate into line, it will be necessary to adjust fiscal and monetary policy.

Reduction of the Budget Deficit The most urgent priority for Congress is to reduce the Federal budget deficit, preferably through curtailments in expenditures.

It is fairly obvious how this will contribute to a better trade performance. A reduction in dissaving by the Federal government raises gross saving relative to investment, implying a smaller inflow of foreign capital and hence a smaller balance of payments deficit. From the standpoint of the dynamic mechanisms involved, a lower Federal deficit reduces interest rates in the United States, causing the interest rate differential with other countries to decline, and putting downward pressure on the exchange rate. In this respect, most econometric models, regardless of their theoretical structure, as well as non-theoretical work, indicate that fiscal restraint will generate a major fall in the exchange rate. Consequently, a reduction in the fiscal deficit implies a direct improvement in the price competitiveness of American tradables. At the same time, because it will change the mix of GNP, it implies a reduction in demand for imports.

Monetary Policy and Lower Interest Rates NAM has for the most part supported the Federal Reserve's countercyclical policies over the last two years, which have been instrumental in controlling inflation and achieving the "soft landing" for the economy. However, we believe that recent monetary policies have erred on the side of restraint, and have contributed to the appreciation of the dollar. For this reason, we urge the Federal Reserve to lower interest rates and be generally more accomodative in coming months. The likelihood of a major acceleration in inflation when the economy is growing slowly is minimal, but a looser monetary policy would facilitate a downward adjustment of the dollar, while at the same time raising growth rates in interest-sensitive sectors.

Reduced Mandated Benefits and Regulation Any policy initiative which affects the cost position of American industry, such as mandated benefits or regulatory requirements, implies a reduction in trade competitiveness unless it is offset by a simultaneous devaluation in the exchange rate. Since the dollar has been appreciating for the last two years, mandated benefits and environmental regulation are likely to inhibit trade improvements, particularly vis-a-vis trading partners

that do not impose comparable requirements on private industry. In general, Congress has taken an excessively narrow view on issues such as mandated benefits, attempting to achieve social goals without due regard for the macroeconomic impact of the methods used. For this reason, we would favor the use of "competitiveness impact statements", which would be required for any new item of legislation or any new regulation that imposes major compliance costs on industries involved in international trade.

Tax Policy for Increased Savings and Investment Any policy which raises aggregate savings would in the long run have beneficial effects on the trade balance. One option would be to exempt corporate depreciation deductions from the alternative minimum tax. This would increase the value of capital consumption allowances, which are the largest component of corporate savings. Congress should also give consideration to measures such as restoration of the IRA deduction, expansion of the contribution limit to IRA and 401K plans, and a lower effective tax rate on capital gains, for instance through indexation of the basis. If these measures could be structured in a revenue-neutral manner, they would raise private savings and reduce the balance of payments deficit.

We also believe that Congress should look into, as part of a systematic reform of the law laws, reducing the burden on taxation on income from work, savings and investment, while replacing the lost revenues with broad-based taxes on consumption. At NAM, we have run extensive simulations of the impact of replacing part of the existing personal and corporate income tax with a value-added tax. The effects revealed in our econometric experiments are uniformly favorable to trade. The mix of GNP is shifted away from consumption, toward investment and net exports; further, the savings rate tends to increase relative to current law. While further work remains to be done on this issue, we find strong evidence that a revenue code more oriented toward taxing consumption than income would produce long term trade gains that are large and statistically significant.

Private Sector Initiatives Even with better public policies, any improvement in trade must ultimately be achieved by the private sector. In this respect, the NAM Board of Directors recently indicated that for manufacturers to excel in the coming decade, they would need to "emphasize research into technologies leading to new products, enhanced research into technologies leading to new products, enhanced quality and manufacturing productivity".

1) Increased emphasis on international marketing. American firms will have to spend more on developing foreign language skills, assessing the needs and tastes of local populations, and develop new systems for the efficient distribution of goods to foreign markets.

2) Increased investment in product development. This will include not only more R&D but greater emphasis on translating technological advances into marketable products. Countries that have become successful world traders have typically evolved better educational systems than the United States, and have in some instances become more adept at commercializing new technologies. It is a singular irony that while the United States does more basic research than Japan and has achieved more scientific breakthroughs, the Japanese have had more success in marketing the results of these technological developments.

3) Increased investment in education, particularly in scientific and technical fields. The educational system in the United States must provide skills and training in such areas as engineering, computer science, and the physical sciences, while also preparing students for the applied research that will be necessary to develop new products and compete in world markets.

4) Finally, corporations must evolve organizational structures that enable them to respond flexibly to changes in the economic environment. The highly bureaucratized firms of the 1950's with their pyramidal layers of management have now been replaced by more efficient organizations in which upper management maintains a much closer touch with the factory floor, and in which decisions can be

made rapidly. Further organizational innovations should include the range of capital, technology and labor quality improvements necessary to achieve world class manufacturing excellence.

In essence, the new economic environment of the 1990's will call for further radical changes in corporate structures, similar to the changes that have already taken place in the 1980's. Facing a more competitive environment and an increasing globalization of markets, corporations will have to evolve internal structures and decision-making processes that will enable them to deal both with the advent of new technologies and new, more demanding criteria for assessing market performance.

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Representative SOLARZ. Thank you very much. Mr. Choate, please proceed.

STATEMENT OF PAT CHOATE, VICE PRESIDENT OF POLICY ANALYSIS, TRW, INC.

Mr. CHOATE. Congressman Solarz, some of my comments will echo that of Mr. Jasinowski's.

When one takes a look at history, what one sees is that great nations project themselves and protect their interests in three ways.

They do it politically. They do it militarily. They do it economically.

What we're now seeing is a decade, perhaps two decades, of transition in which economic power will increasingly be the foundation for political power. And as we take a look at the United States as we move into the 1990's and the first part of the 21st century, I think it important for us to begin with an assumption that we are a very competitive society, we're very productive. We have a vast stock of capital. We have a treasure house of technology. We can create more. And we have millions of very productive workers.

We're formidable competitors by any measure.

What must disturb us, however, is that our performance is neither keeping pace with what we do in the past, nor is our performance keeping pace with that of our principal competitors.

And as we take a look out into the 1990's, what we can see, or at least what I believe I see, is that the rhetoric of the 1990's will be globalism. But the reality is going to be economic nationalism.

And in this economic nationalism, the starting point is going to be that there are going to be certain givens. And the first given is that goods and services traditionally are going to continue to compete on the traditional bases of price, service, quality, innovation, and marketing.

But I would go one step further than that. In the 1990's, quality is going to be a given. Price is going to be a given. Service and innovation and marketing must be a given.

In other words, if you don't have top quality, if you don't have cutting-edge technology, you're simply out of the business from the very beginning. There is no forgiveness for those who cannot compete on the classic five foundations.

But I would say there's also now a sixth dimension in competing globally, and that is politics. It is the politics of political economy increasingly that is going to determine the difference. And that is both international politics and domestic politics. Specifically, what I mean by that, it is the question of internally how we give priorities and how we organize ourselves to be able to meet this competitive challenge.

In the prepared statement, I talk of two basic domestic challenges that we face. One, how do we bring down the cost of capital in this country?

What we're now finding is a circumstance where our cost of capital is roughly three times greater than that of our competitors in Japan and a little less so with our competitors in Europe.

What that means, very simply, is that if the Japanese are paying 3 percent cost of capital, we're paying 9 percent cost of capital.

That differential means that for every billion dollars of capital that we deploy, we must pay \$60 million more in carrying costs.

Now, all other things being equal, we're not 6 percent better than our competitors. We are going to be unable to maintain the investments that we need as long as we have this differential.

The second issue that we face is how do we reduce these long-term pressures for short-term results?

In other words, the pressures that we have to sacrifice the future for the present. And in the back of the prepared statement I provide some charts that, in effect, suggest that what we have seen over the past decade is a major shift in our capital markets. And the essence of that shift has been this—increasingly financial institutions control the activities of the New York Stock Exchange, our major capital market, and increasingly, the control has focused on large-volume transactions and short-term trading.

And, indeed, what we now see is a circumstance where the total value of the New York Stock Exchange, the total turnover rate is proceeding at a rate of virtually once every 14 months, wherein, in the past, it proceeded at a rate of once every 5 years.

What we have is a speculative environment where it is a very foolish CEO that does not consider short-term earnings in the price of their stock. In other words, they will be taken over and their company will be broken up.

This is skewing our investments toward the short-term, in technology, capital facilities, and training. That's of major consequence.

And the final point that I would make is I believe we're at a point when we need to fundamentally rethink our trade policies in this country.

What we have seen is the United States has been a champion of a free trade regime in the post-World War II period. It succeeded for a period of time when we were willing and we were able to concede more than what we got out of these negotiations.

Increasingly, however, what we find is a very different circumstance. We are no longer able to make greater concessions than what we get. We increasingly find that other nations operate under very different economic assumptions than we do. They have very different industrial structures than we do. And quite literally, we're at a point where it is unrealistic for us to assume that other systems are going to make fundamental changes in the structure of their economy to benefit the United States.

And equally important in these negotiations, we have not considered investment as a major element in trade negotiations. In effect, what we have done is said, we will concentrate on imports and exports.

Increasingly, what we're seeing is investment is used as a means to project economic power.

My point is, in the future, we must consider investment as simply the flip side of the coin of trade and investment.

So, in summary, I think that what we must do is find some new organizational modes. We require some new priorities inside the United States. We require new arrangements between business and government. We need to take a very close look at the Federal support for technology and other activities to see that, at a minimum,

we're matching what Europe and Japan are doing. We need new consortium arrangements.

In effect, what we must say is that we must make the strengthening of our economic power our priority for the 1990's. Thank you.

[The prepared statement of Mr. Choate follows:]

PREPARED STATEMENT OF PAT CHOATE

Mr Chairman and Members of the Committee:

I am pleased to have the opportunity to share with you some thoughts on American productivity and competitiveness. In fairness to you and my employer — TRW Inc. — I also want to point out that the views that I offer are my own and are not necessarily representative of the position of TRW or any other organization.

While the United States is no longer the world's dominant economic power, neither yet is Europe or Japan. Regardless of whether the current situation is an interregnum or a permanent state, America has an urgent need to address several fundamental structural problems. I will address three of these — the high cost of capital, the pressures on companies to sacrifice the future for the present, and an antiquated national trade and investment policy.

Capital

The supreme irony in economics is that the most important issues are usually the most boring and least understood. And of these issues, nothing quite compares with the cost of capital.

Yet of all political and economic factors, the high cost of capital is probably the most formidable obstacle to strengthening America's competitive edge. George Hatsopoulos, chairman of Thermo Electron, and Stephen H. Brooks, an economist, have calculated that the cost of capital is almost three times higher in the United States than in Japan.

In the past, when U.S. superiority in productivity and world markets was unchallenged, such a wide difference in capital costs was relatively unimportant. This disparity is now pivotal.

For purposes of illustration, assume that the cost of capital in the United States is 9 percent and in Japan 3 percent. For every \$1 billion of capital deployed to produce goods and services, therefore, Japanese firms would pay \$30 million annually while American companies would pay \$90 — a difference of \$60 million.

All other things being equal, American companies start-off having to be six percent more productive than their Japanese competitors just to offset the higher cost of capital in the United States. In business, that is an enormous burden. The substantial carrying-cost advantage enjoyed by foreign companies enables them to offer their goods and services at lower prices than competing American firms.

Conversely, the higher capital costs in America increases the risks for U.S. companies and decreases their capacity to invest in automation, research, innovation, worker training, marketing and other activities that can further strengthen their productivity and competitiveness.

Many factors contribute to the higher cost of capital in the United States. Hatsopoulos attributes much of the differential to the practice in other nations of using higher debt-to-equity ratios. Martin Feldstein, former chairman of the Council of Economic Advisors, traces this higher cost to the large volume of federal borrowing needed to finance the national government's budget deficits. Others attribute it to taxation of interest income on savings, capital gains and dividend income.

Regardless of how these factors are weighted, one thing is clear a lower cost of capital — and the a lower federal budget deficit and more national savings required to achieve it — are absolutely essential if America is to have the productivity and competitiveness that it requires in the 1990s.

Sacrificing Tomorrow for Today

The capital issue transcends cost. There is also the question of how available capital is used. Over the past decade and a half, it has increasingly been used for speculative rather than productive purposes.

If business is to take a longer-term focus, it requires an economic environment that permits and encourages long-term action. The creation of such an environment hinges on a reduction in the demands of investors for immediate returns, regardless of longer-term consequences.

In turn, this requires a recognition that control of America's major corporations has steadily shifted from individual investors to financial institutions — pension funds, insurance companies, foundations, investment companies, educational endowments, trust funds, and banks. This shift has far-reaching consequences, because individuals and institutions invest in the stock market for sharply different reasons; individuals are primarily investors looking for long-term performance; institutions are pursuing short-term profits. Thus, just when U.S. business needs to be making long-term investments to meet global competition, the new owners — the institutions — are pressing for quick results.

Institutions now hold so much equity and are such a powerful presence in stock markets that most corporations are at the mercy of their demands. The raw economic power of institutional investors can be measured in two ways; their stock holdings and their willingness to get rid of stocks that fail to produce quick earnings.

Institutional stock holdings have risen rapidly over the past three decades. By the mid-1980s, institutions held more than 35 percent of all equities listed on the New York Stock Exchange (NYSE), double their share in 1960. By 1990 they are expected to own half. Already, institutions have half to two-thirds of the stock of the nation's 200 largest corporations.

Yet their biggest impact comes not through mere ownership but through the growing pace of their transactions. In 1953, when institutions controlled about 15 percent of the equities listed on the NYSE, their trades constituted a quarter of stock market transactions. Today, institutional trades constitute almost 90 percent of transactions (chart 1).

As a result of such hyperactive trading, the fundamental focus of the stock market has been transformed from long-term investing to short-term speculation. This shift can be gauged by both the rising volume of large-block stock transactions (10,000 shares or more) by institutions, and the quickening pace at which the entire value of stocks listed on the NYSE is traded.

The exchange reports a two decade trend of steady increases of large-block transactions, and they are overwhelmingly by institutions. In 1965 there were, on average, only nine large-block transactions a day, constituting 3 percent of the daily volume of the market (chart 2). By 1980 the average number had risen to 528 per day. Over the past eight years, the number of large block trades increased by 600 percent, soaring to an average of 3,639 per day in 1987, half of the total volume on the NYSE.

Because institutions own such a large share of all stock, and trade that stock so zealously, there has been a sharp increase in the turnover rate of the entire NYSE (the pace at which the total value of stocks listed on the exchange is traded). Until a decade ago, the turnover rate was less than 20 percent a year. By 1987, it was up to 73 percent (chart 3). At the 1970s pace, it took 5 years for the entire value of the stock market to turn over, but today it takes only 15 months. This is speculation, not investing.

In the speculative, short-term-oriented equity markets that now exist, only a few American firms, such as General Electric, IBM, General Motors, and Exxon have sufficient profits and assets to make the commitments that long-term global competitiveness requires without sacrificing shorter-term earnings. Most companies are obliged to focus their efforts and resources on results that can bolster the price of their stock.

Fast results and short-term earnings have become the obsessive goal of too many American companies. The pursuit of these objectives diverts resources from investment in modern plant and equipment, research, technology and training to clever financial manipulations. It sacrifices market share to high quarterly earnings. And it discourages workers from making long-term commitments to companies.

By ceding the future to the present, American firms have greatly reduced their capability to cope with foreign competitors whose actions are shaped by long-term perspectives. In short, America is making poor use of its limited capital.

Pragmatic Global Economic Relations

Despite America's spirited advocacy of a global free trade regime, it has little appeal to many other nations. We are at a turning point. Either we must find some way to convince other nations to adopt the industrial structure and free trade philosophy that has served us so well or find a way to work with others as they are.

If we are to convince others to be like us, then we must somehow convince them to abandon practices that have served their interests well and adopt those that will serve ours. I doubt that we are that persuasive. Realistically, it is we who must adapt.

What America requires is an approach to trade that can meet the following standards:

- o **Deal with both trade and investment flows**

Increasingly companies extend their economic presence in global markets both through exports and investment. U.S. trade policy has concentrated almost exclusively on imports and exports. By ignoring investment, we are losing exciting opportunities to open markets for American producers.

o **Make expanded trade the goal of negotiations**

Too often the basic goal of prior trade negotiations has been to persuade others to adopt a free trade approach. Equally often, this would require impossible domestic political changes in other countries. What do we really want. I suggest that it is expanded trade. This may be different than free trade. If this is correct, we should be clear about our objective in trade negotiations: that is, expand trade rather than doing missionary work on behalf of our free trade ideology.

o **Accommodate differences in economic systems**

Other countries compete in the world marketplace using vastly different assumptions, serving vastly different ends than America's. Economic systems differ in ways both manifest and subtle, reflecting basic differences in history, culture, national aspirations and politics. In short, America should establish free trade relations with those societies, such as Canada, that practice free trade; managed trade with managed trade economies; and something in between for all others.

o **Adapt the negotiating tactics to the circumstances**

In the past, the United States has put most of its eggs in a multilateral negotiating basket. Yet, many of our most pressing economic challenges are of a bilateral nature. Equally important, a number of trade issues are of a plurilateral nature, such as protection of intellectual property rights of the industrial nations. Finally other issues involve most nations and thus are most appropriately dealt with through GATT. In sum, we require the flexibility, and the negotiating resources, to pursue dual negotiating tracks.

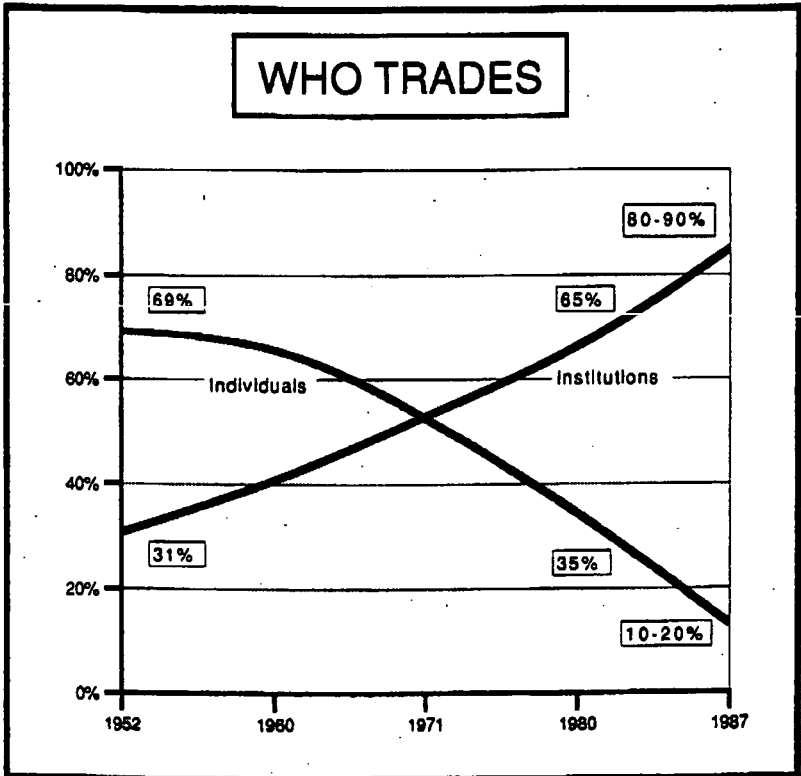
Conclusion

If America is to have the productivity growth and competitiveness that it requires, a number of steps are required — redress the imbalance in our macroeconomic policies, make substantial new investments in infrastructure, education and science, and improve the operations of our government, among many others.

As we take these steps, we should proceed with the recognition that we are a productive and competitive people. Slackards do not build a \$5 trillion economy. But we can do better. The process of doing better, moreover, offers this generation and the next exciting opportunities. What we require most of all, therefore, are leaders who are able to excite our people about those opportunities and translate excitement into action.

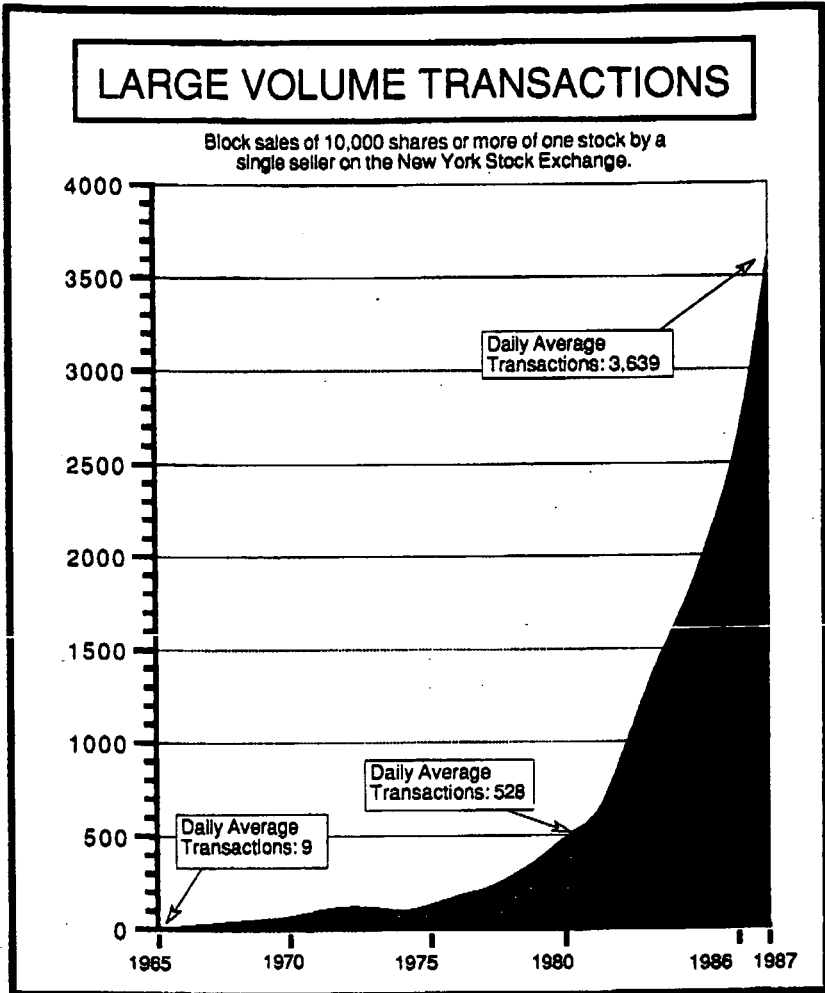
Thank you. I look forward to your comments.

Chart I



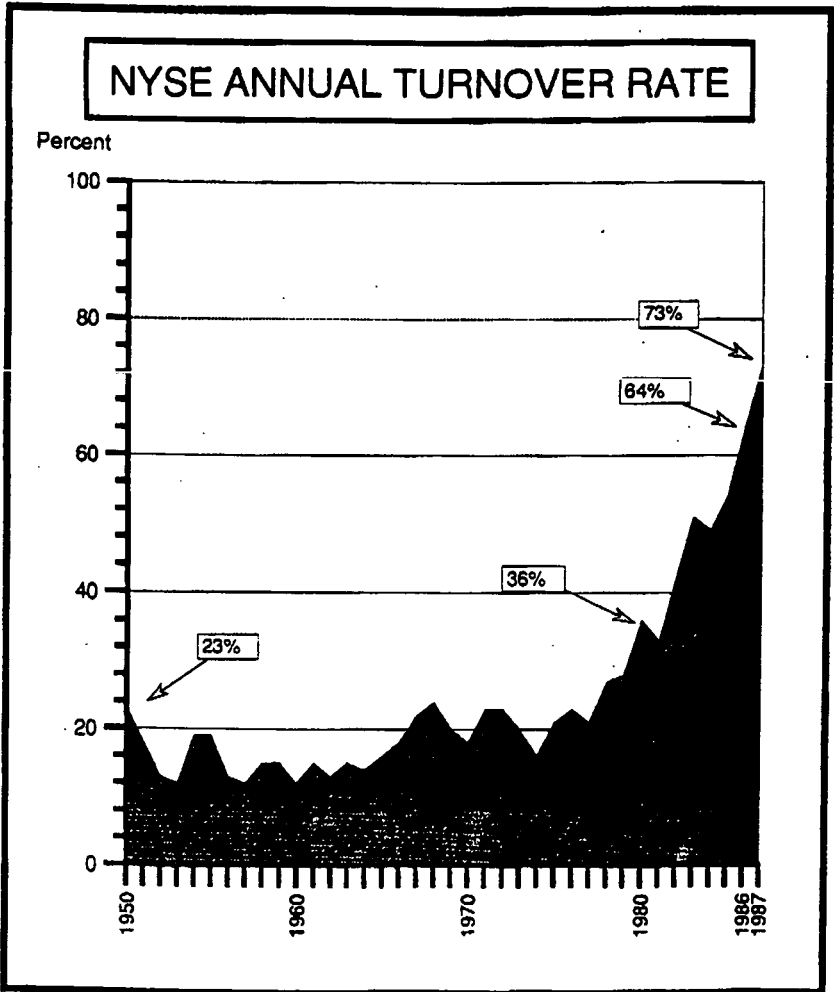
SOURCE: "Fact Book 1988", The New York Stock Exchange and Businessweek August 13, 1984.

Chart II



SOURCE: "Fact Book 1988", The New York Stock Exchange.

CHART III



SOURCE: "Fact Book 1988", The New York Stock Exchange.

ECONOMIC LEADERS IN THE WORLD

Representative SOLARZ. Well, thank you both very much. Would you agree that right now, the United States is the No. 1 economic power in the world?

Mr. CHOATE. Yes.

Mr. JASINOWSKI. Yes, sir.

Representative SOLARZ. And who is behind this and in what order?

Mr. JASINOWSKI. Well, what I would have said, without equivocation, and still would, Japan, in my belief. I think Japan is our toughest competitor. They have the greatest amount of capital, et cetera.

Representative SOLARZ. And go down four or five into the ranks.

Mr. JASINOWSKI. Well, I would say, then, of course, it's clearly Germany. And I think the potential for a united Germany would change the whole set of dynamics.

I think after that it becomes more difficult for me, but I would probably move to the United Kingdom as the third. But I must say, it gets much fuzzier because for me to distinguish the United Kingdom from France, for example, I think is quite difficult and to distinguish them from some of the Pacific Basin countries like South Korea.

So I have more difficulty ranking them after the first three.

Representative SOLARZ. And is your ranking based on GNP or per capita income, or what?

Mr. JASINOWSKI. Well, my ranking is more based on who's the toughest competitors, in terms of who we have to face as manufacturers. And I know who our two toughest competitors are—they're Germany and Japan.

Representative SOLARZ. And after them, what about France or Korea or Taiwan?

Mr. JASINOWSKI. There are some remarkable things going on in all of these parts of the world. Italy and France, for example, have been making extraordinary changes and are becoming quite stronger competitors. And, of course, Taiwan and South Korea are the big success stories in the Pacific Basin.

Mr. CHOATE. I would go first with Japan. I would say second, Germany, standing alone, because we have a \$30 billion trade deficit with Germany. Then I would say Europe, led by Germany, since they do 30 percent of the gross product of Europe.

I would then say Korea, followed by Taiwan.

Representative SOLARZ. Well, after 1992, when we think of the economic challenge that comes from other parts of the world and countries with the United States, would it make more sense to think of Europe as an entity or the EC as an entity, as distinguished from Germany, France, the U.K., and Italy? Or would it be more intelligent still to think in terms of individual countries as our main competitors?

Mr. CHOATE. I would think of it in a dual track of an evolution of that system.

I would give a great deal of attention to Germany, but I would recognize that Germany is going to play the leadership role in Europe.

And so I would say it's necessary for both companies and countries to concentrate on both of them.

Representative SOLARZ. No, even if Germany is reunified, presumably, Japan would still be the No. 1 competitor and a reunified Germany would be second.

Mr. CHOATE. Yes.

Mr. JASINOWSKI. I think at this stage, yes, sir, because they have so much capital.

I might say that, although, I tend to agree with Pat Choate that we ought to think of EC 92 in dual terms, that I am a bit cautious about the extent to which the nation-state will be submerged. I think that, frankly, I would focus on the Germans and the French individually, with somewhat higher priority than I would the unit as a whole.

U.S. SHARE OF GLOBAL GNP

Representative SOLARZ. Would you share the view that we heard early on in these hearings, that no matter what we do, under the best of circumstances, our share of global GNP will almost necessarily decline as we move into the 21st century, as the developing countries begin to produce more and more?

Mr. JASINOWSKI. I think that's going to be the case, because of the laws of arithmetic more than the laws of competitiveness.

Representative SOLARZ. Yes.

Mr. CHOATE. I don't necessarily agree with that. I don't believe that economics are celestial mechanics.

I think that if we can have the entire world grow and if we can move ourselves to greater productivity, we can maintain our position in a growing world economy.

Representative SOLARZ. Well, in terms of the, say, national security of the United States, what is the more important figure or comparison—our share of global GNP or our relative standing to the other major industrial and trading countries?

In other words, one could envision a circumstance where our share of global GNP declined, but our standing vis-a-vis Japan and Germany and some of the others either remained where it was or maybe even improved a little bit because developing countries were getting a larger share of the global GNP.

So which is more important?

U.S. RELATIVE POSITION

Mr. JASINOWSKI. Our share of GNP, our world share of GNP is not a critical criteria for the determinant of our economic power. More critical criteria are our productivity growth levels, trade deficit position, balance of payments, international indebtedness, et cetera.

Representative SOLARZ. Do you agree with that, Mr. Choate?

Mr. CHOATE. I think you've hit the key question. It is our relative position to Japan and Germany that counts.

Representative SOLARZ. Now, let me explore that a little bit.

Let's assume that our relative position slips. Let's assume at some point in the 21st century Japan moves ahead of us. Let's even say Germany moves ahead of us. But let's also assume it isn't be-

that we're facing a backlog of \$3 trillion of investment in infrastructure. We see this massive training demand.

We're going to have to step up to the line in technology. We have to rebuild our manufacturing base in this country.

If we don't have the economic performance to do it, what we will move into is a long slide into stagnation. It will be a decline by a thousand cuts.

Representative SOLARZ. And in what sense do you mean that would result in the end of the American dream?

Elaborate on that.

Mr. CHOATE. The American dream has essentially been based upon the assumption that, one, we can improve our physical surroundings. Two, that we can afford to improve our housing and our education of our people, and that we have an economy that can provide jobs that are increasingly better—better high knowledge jobs, better high value-added jobs, and safer jobs. All of that depends on being able to produce and to market.

Representative SOLARZ. I suppose you'd agree that, in its most simple terms, the American dream has been based on the notion that the next generation will live a better life than the current generation.

Mr. CHOATE. Yes.

Representative SOLARZ. And parents would bequeath to their children a country in which their children were better educated, better employed, better housed, better fed, and better sheltered; in general, led a better life than they did.

That's been, by and large, the history of America. And you're saying that this is now potentially in jeopardy if we were to lose our economic preeminence.

Mr. CHOATE. No, I would not say it's potentially in jeopardy. I say it's in jeopardy. I would go the next step and say that this generation of Americans is probably the poorest generation of stewards that our country has ever faced.

Representative SOLARZ. But are you gentlemen suggesting a kind of zero-sum gain in which—because there's also now a Japanese dream and a German dream. Perhaps they don't phrase it quite that way, but presumably they would like this for their country as well; namely, that the next generation would lead a better life than the current one.

At the end of the day, we're all human beings and we want more or less the same things for ourselves and our families and our children.

Are you saying that we've now entered a stage of world history and international economic relationships in which the only country that can fulfill the dream of continually improving the conditions of life for their people is the country that's No. 1 economically? And the countries that are 2, 3, 4, let alone 10 and 15, won't be able to fulfill that dream?

Mr. CHOATE. No, not at all.

Mr. JASINOWSKI. I don't think so.

Representative SOLARZ. Well, then, if it's not true for the other countries, why is it true for the United States?

Mr. JASINOWSKI. First of all, I'd like to say that I certainly don't subscribe to the view that we are going to have an absolute decline

in our standard of living in the next decade. I think that there is a potential for that. But, again, our view is that we will see an improvement in our productivity, and that, given all the other things that are going on there, there's as much a potential for a continued renaissance in everything from manufacturing to our competitiveness.

So I don't subscribe to the view that there is an absolute decline in the American standard of living in the 1990's.

Now, having said that, the one other point I'd make is that if that were to happen, there is only one way it can happen. It's not dozens of things. There's only one way, and that is by the United States investing too little for the future. There's nothing else other than that. And there is a tendency for us at the current time not to invest enough, and that's why we're borrowing.

Representative SOLARZ. I want to get into all that, but let me stick to this question I asked, which is, you both seem to agree that if we're eclipsed economically, that there's a real possibility, perhaps a probability, that the American dream would come to an end in the sense that the life of future generations won't be as good as the current generation.

IMPACT ON OTHER NATIONS

So, then, I ask the converse of that. If that is true for the United States, is it also true for the other leading industrial countries, that if they don't become No. 1, their dream won't be fulfilled to the same reasons ours wouldn't if we don't remain No. 1, and we would have the competitive edge. We would take the better jobs. They would become dependent on us. They get the lower paying jobs, and so on and so forth.

Mr. JASINOWSKI. I don't think we have a zero-sum global gain, first of all, which means that more than one country can have an improvement in the standard of living without taking it from the other. And I don't see any clear evidence that we're going to have an absolute decline in the American standard of living, in effect.

Representative SOLARZ. Well, if we don't have a zero-sum gain, then why do you both seem to feel that—obviously, it would be the desire for us to be No. 1. I'm exploring with you the implications if we're not No. 1. It's possible for other countries to have a rising standard of living if they're not No. 1.

Why isn't it possible for us?

Mr. JASINOWSKI. The most obvious reason, Congressman, is because of politics and power and the fact that you know when the perception is that you're stronger than someone else, your ability to negotiate in a certain situation is enhanced.

So to put it in its crudest term, the advantage of being No. 1 is it allows us to use our economic power in negotiations around the world in the decade ahead.

Representative SOLARZ. That I understand. But that isn't my precise question.

Mr. CHOATE. Let me take a cut at that. Now, it is possible to have a positive sum gain where the entire world grows.

But nations that are a part of the world, if they do not undertake the right kind of actions, they may not necessarily keep pace with

the full pace of that growth. They may not keep pace—they may just stand still.

Argentina is a very good example. Here was an economy in the 1920's and 1930's that was one of the third or fourth largest economies, best producers in the world. Through a variety of methods, it didn't keep pace with the rest of the world growth.

That can happen to us.

Now, our size means that we would be a drag on the balance of the world. But when one comes and takes a look to the probability of us having a flat or declining standard of living, let's just disaggregate.

What is going to make a positive standard of living? It is to have high productivity, high knowledge industries at the cutting edge.

In the 19th century, it was steel and the basic industries. In the 1920's and 1930's and 1940's, it was autos and a variety of manufacturing activities. We've shifted to high technology and then to biotech.

When we begin to disaggregate our economy and look at each of those areas, such as automotive production, materials, consumer electronics, now high-tech electronics and biotech and pharmaceuticals and others, we find that we have a formidable base. But what we find is that we're being sharply challenged and that other societies are putting up the resources, both from the public and the private sector, and we no longer can be assured that we'll be a major player in the 1990's.

We can be, but we can't be assured. And that ultimately will determine our standard of living.

KEY ELEMENTS OF RELATIVE ECONOMIC POWER

Representative SOLARZ. When you gentlemen are measuring the relative economic power of the United States, what are the key indicia that you're looking at, in order of importance?

Mr. JASINOWSKI. Well, I guess I would start with per capita income, some measure of standard of living, and I would take that as No. 1. Second, I would look at GNP growth in real terms to see what the overall economy is doing. Third, I'd look at productivity in relative terms. And finally, although I could go on further, the final macro one, of course, would be our trade and balance of payments position.

I might actually move that up a bit, Congressman, to be in keeping with my remarks about the need for global criteria.

Representative SOLARZ. Mr. Choate, would you agree with that?

Mr. CHOATE. I would take each of those measures and say that they're a measure of our current position.

I would also look for some leading edge indicators. And on that, I would take, in a series, in the high-tech industries, the high knowledge industries, and take a look at our relative global market share.

RELATIVE POSITION ACCORDING TO GNP AND PER CAPITA INCOME

Representative SOLARZ. OK. Now, taking those criteria, how would you compare the United States, Japan, and Germany, starting with the GNP and per capita income?

Mr. JASINOWSKI. In terms of the 1990's, or in terms of right now? Representative SOLARZ. No, right now. Do you know offhand? What is the order of magnitude?

Mr. JASINOWSKI. I think that if you look at, starting with the easiest, the trade numbers, we are substantially behind both of those competitors in that.

Representative SOLARZ. In what?

Mr. CHOATE. In trade.

Mr. JASINOWSKI. In trade. Both of them are surplus nations by very large amounts.

Representative SOLARZ. Right.

Mr. JASINOWSKI. Thirty, forty—very large amounts.

Second, in terms of productivity growth, they are substantially ahead of us, except for manufacturing, where, in terms of this last report, we are now almost equal to both Japan and Germany, which is a new development and one important to underline.

In terms of GNP growth, Japan has been ahead of us. We have been somewhat ahead of Germany. We've had a pretty strong GNP growth up until the last year or so. Relative per capita income, I believe both of them are ahead of us.

Mr. CHOATE. They're both ahead.

Representative SOLARZ. They're ahead of us in per capita income?

Mr. CHOATE. Yes.

Mr. JASINOWSKI. Yes, sir.

Representative SOLARZ. Well, in what sense, then, are we ahead of them? They're ahead of us in per capita income. They're ahead of us in trade balances. They're more or less ahead of us in productivity.

In what sense are we No. 1?

Mr. CHOATE. Debt. [Laughter.]

Representative SOLARZ. Well, would you say they've already—I guess we have a higher GNP.

Mr. CHOATE. Yes.

Mr. JASINOWSKI. Well, first of all, we have a larger economy than either of them and have larger GNP. I think, in that sense, we are, and I think that's an important sense.

Representative SOLARZ. But the Soviet Union is ahead of them in GNP, too.

Mr. JASINOWSKI. No, I think that's right.

Representative SOLARZ. You wouldn't compare the Soviet Union to Germany and Japan economically.

Mr. JASINOWSKI. I think it's realistic for us to think that we're in a horserace with these other two countries. So whether or not we're slightly ahead or somewhat behind, it's a horserace.

STRENGTHS AND WEAKNESS IN U.S. RELATIVE POSITION

Representative SOLARZ. But is there any sense in which we're ahead, other than the fact that we have a larger GNP?

Mr. JASINOWSKI. I think that I can find a substantial number of indices in the technology area where we're ahead. I think, if you look at our whole university system, for example, I mean, there's

no comparison between the American university system and either Germany's or Japan's.

And if you look at our basic—not innovation, but technology, in terms of the big ideas—this is a country that has come up with the big ideas, more than either of the other two.

Representative SOLARZ. We have more university students per capita than Japan and Germany?

Mr. JASINOWSKI. I'm sure we do.

Mr. CHOATE. And better universities.

Mr. JASINOWSKI. And better universities. There's no comparison between American and Japanese universities, in my opinion.

Mr. CHOATE. What disturbs me is this. Japan, which has half of our population, last year made more new fixed capital investment for productivity purposes than the United States and Canada combined. They financed roughly 25 percent of our Federal budget deficit, and still had savings left over.

Representative SOLARZ. Is that primarily due to their much larger savings rate?

Mr. CHOATE. Their much, much larger savings rate.

The second thing that I would say is disturbing is they have, by and large, a far better educated work force than we do. They're dealing with a 99 percent literacy rate; realistically, we're dealing with a 75 percent literacy rate. That gives them an enormous advantage as we move into the 1990's.

Representative SOLARZ. Twenty-five percent of the American people are illiterate?

Mr. CHOATE. Can't read, write, or count at a seventh or eighth grade level. Cannot understand instructions. I'm talking about adults, work force. Cannot understand instructions that you leave them. Cannot read instructions back when something goes wrong.

It is an enormous drag.

Our literacy rate in 1989 is lower than it was in 1859.

Representative SOLARZ. How are you defining literacy?

Mr. CHOATE. Being able to read, write, and do basic arithmetic, sufficiently to work on the job.

Representative SOLARZ. You're not talking about grade level, seventh grade level, fourth grade level?

Mr. CHOATE. I'm talking to be able to read at that level.

Representative SOLARZ. OK. At which level?

Mr. CHOATE. The seventh grade level.

Representative SOLARZ. And there are tests to measure this?

Mr. CHOATE. Oh, yes, national standard tests, yes, sir.

Representative SOLARZ. In other words, they pick a random sample of workers and they give them this test?

Mr. CHOATE. Yes, national literacy tests.

Representative SOLARZ. And you're saying that has indicated that 75 percent of the American work force is literate up to a seventh grade level?

Mr. CHOATE. Worse. The American population.

Representative SOLARZ. American population. And it's 95 percent.

Mr. CHOATE. No, it's 99 percent in Korea and Taiwan.

Representative SOLARZ. And Japan and Germany?

Mr. CHOATE. Oh, yes.

Representative SOLARZ. The same? Now, this is a kind of paradox here because, obviously, their educational systems are doing better at the elementary and high school levels. Yet, you both said we seem to be doing much better at the university level.

How do you account for this paradox and what is its significance?

In other words, if you had to choose between a better university system or a better elementary and secondary school system, in terms of the economic competitiveness of the country, which is better to have?

Mr. CHOATE. You have to have both. The commitment to higher education reflects the fact that the United States has always had a commitment to higher knowledge. It also reflects the fact that the top 20 percent of our graduates coming out of elementary and secondary is as good or better than any in the world.

But what we also see is, below that, that we're seeing an absolute decline in the elementary and secondary. The significance is, in the United States, we've traditionally used our higher educational system to do our basic research that eventually is converted to technology.

We must continue that, but, at the same time, we have the challenge of improving kindergarten through 12, and we have a third challenge that we really haven't addressed in this society. And that's because of the demographic shift created by the post-World War II baby boom generation. Ninety percent of the people who are going to be working in the year 2001 are already adults and most are at work. And most of them either didn't get it or are going to need retraining.

THE PRIMARY CHALLENGE TO U.S. NATIONAL SECURITY

Representative SOLARZ. OK. Now, I assume you would both agree that if the current trends in East-West relations continue, and the Soviet threat diminishes, that the main challenge to our national security in the 1990's, certainly in the 21st century, assuming that no other unanticipated threat emerges of a military nature, that the primary threat to our national security will be in the form of the economic challenge we confront from other industrial countries around the world?

Mr. JASINOWSKI. Yes.

Mr. CHOATE. Absolutely.

RECOMMENDATIONS FOR SOLVING THESE PROBLEMS

Representative SOLARZ. Now, if that is the case, I want to ask you what precise recommendations you would make in terms of what we can do about the problems we face in America that we're going to have to solve if we're going to meet this threat to our security from a legislative point of view?

There are a lot of things that need to be done that, as a Congressman, I can't really do anything about, except give speeches. But in terms of the contribution we could make to enhancing the prospects for the continued economic vitality and viability and strength of our country, I'd like you to tell me, as specifically as you can—I'm not talking about precise amounts or exact legislative

formulations—but what could we do first in terms of resources with respect to education, infrastructure, training, and the like? And what could we do in terms of legislation that perhaps doesn't carry any price tag with it, but is designed to deal with other aspects of the problem?

So what would be your agenda? If we came to you and we said, you guys write the ticket. You've convinced us we have to move. Now is the time to act. What should the Congress do?

Mr. JASINOWSKI. Let me try and answer that.

Representative SOLARZ. And let's assume that if money was a problem, that we were prepared to find the ways to make it available.

Mr. JASINOWSKI. Let me try to answer that, both constructively and, if you would bear with me, a little argumentatively, to begin with, and it's only in the following sense.

I'm struck by the need for us to deal with this global economy in terms of being able to move quickly, both in corporations and in public institutions.

The whole concept of congressional legislation in that fast-moving environment does give one pause when one looks at the track record in some areas.

And so, I simply would say to you that the congressional difficulty of being flexible and quick in terms of legislation is one reason why I think we should be careful about thinking that we are going to apply great sophistication easily through legislative vehicles.

To underline that, I would simply say that what is going on now in interest rates is, I think, far more important than what's going on in many of the legislative situations.

Having said that, the theme I would strike is an investment theme and say that the Congress ought to address all those things which help increase our national investment in constructive projects, however that may come about.

The first way to do that would be to reduce the budget deficit, which, although people on the Hill and in the administration, for their part, are still unwilling to do, it is the single most important cancer eroding our long-term economic power, and through a reduction of a package of entitlements, expenditures and taxes, we ought to simply get that budget deficit down.

Representative SOLARZ. And you would say that it's the single most important factor in eroding our economic power, presumably because it drains the resources which would otherwise be available for investment is financing the deficit.

Mr. JASINOWSKI. It is a dissaving. Exactly. It is a dissaving and it eats up investment.

Representative SOLARZ. No. 1, reduce the deficit.

Mr. JASINOWSKI. Yes.

Representative SOLARZ. Let's leave aside how we do it, whether it's reduction of spending, increases in revenues. You obviously have to do the right kind of spending.

Mr. JASINOWSKI. The second item would be to increase investment in capital by ensuring that, through whatever tax mechanisms, we are on a comparative cost-of-capital basis with other countries.

Third, to improve our investment in human education, particularly in the younger parts of our population at the Federal level, and, of course, finding the right balance with the State and local level for K-12 educational investment, where we may not need it to the same extent as we do at the lower levels; that is, Head Start and other programs like that.

And then continuing on the investment theme, to look at our investment in basic R&D and commercialization of innovation, to the extent that the Federal Government influences that, infrastructure, et cetera.

Representative SOLARZ. Well, Mr. Choate, do you want to say anything on what, or do you buy off on that?

Mr. CHOATE. I buy off on that. But I, obviously, have some other things to add to the list.

Representative SOLARZ. Right. Sure. Why not.

Mr. CHOATE. I'd say the first thing is a noncost item. And that is, in policymaking, to give our economic position a priority with defense and foreign policy. I think it would be very useful to amend the National Security Act to, in effect, say that the national security adviser is also now a neutral broker where he or she has to balance off defense, foreign policy, and economic interest and consider it.

The second thing, I think it would be very useful for the Congress on a regular basis to have at the same table the responsible person from the Department of Defense, the U.S. Trade Representative or the Secretary of Commerce and the Secretary of State on many of these issues to have a blending.

In other words, it is to force the issue to see how these things relate to each other.

As to the question of technology, technology is really going to be the driving force and wild card in the economy in the 1990's and the 21st century. I think we need to take a very close look at Europe and other projects that are being put into place in Europe, to the industrial technology programs that are being put into place in Japan, and, at a minimum, we must equal those projects.

Representative SOLARZ. Let me take the components of what you said and start with the easy ones.

Education. I assume part of what you have in mind would be things like, in terms of what the Federal Government can do. I recognize that we're only part of the State governments, the local governments, and the private sector. But I want to focus now on the Federal.

With respect to education, I assume you would say, assuming resources could be found, we're talking about things like fully funding Head Start.

Mr. JASINOWSKI. Yes.

Representative SOLARZ. OK. We're talking about fully funding chapter 1, which is a remedial educational program we have. It's presumably fully funding adult illiteracy programs.

Is there anything else in the area of education than those that you think would require—

Mr. CHOATE. I would reorder the priorities in the vocational expenditures. Today, these moneys have gone into channeled programs.

I think the Federal Government puts up only 7 percent of those expenditures. What I would recommend is if there is a Federal role in financing vocational expenditures, it is to assure that the State and local governments have modern equipment and modern faculty skills.

So I would, in effect, focus the money on modernization of the system, rather than doing a series of individual small programs. I'd let the communities do that.

The other thing where the Federal Government has traditionally had a responsibility is in our great science universities, to finance that kind of activity, and to go back to what we did in the 1950's and 1960's, is to give the scholarships that are necessary to produce the engineers and the scientists that the society requires.

Representative SOLARZ. When we had the National Defense Education Act, did that focus on science and engineering?

Mr. CHOATE. Engineers. And it would give, in effect, grants for students doing it. I think it's also legitimate for the Congress to turn to the States and to take a look at their priorities on their investments. We're producing at this point roughly 4,000 Ph.D. scientists and engineers a year in the United States, only half of whom—

Representative SOLARZ. How many?

Mr. CHOATE. 4,000.

Representative SOLARZ. Engineers?

Mr. CHOATE. Scientists and engineers, Ph.D. level. At any one given time, however, we have something in the neighborhood of 220,000 people in law school in the United States. These are, of course, postbaccalaureate type activities.

The question I think we should ask ourselves, do we need 220,000 more lawyers? Do we need more scientists? How do we balance out?

That's the question.

Representative SOLARZ. Would you do this through a special program for science and engineering where you would establish a program to provide fellowships and scholarships for people who commit themselves to a course of study in those areas?

Mr. CHOATE. Yes.

Representative SOLARZ. OK. Now, let me move on to the next item which should be fairly simple—infrastructure. We have this backlog of needs for roads, bridges, airports, and the like.

Would you feel that the maximum funding for that, to the extent it could be made available, would be very useful?

Mr. CHOATE. I would do two things on that. One, I would take the funding that is already being collected and I would expend it, such as out of the various trust funds. I would make a full expenditure. I would not permit this sort of hidden financing.

The second thing I think that is required is to find some new financial mechanisms that will assist the State and local governments to do the financing. And the essence of that is to find ways in which user fees can be applied and used and define perhaps some new ways to cut some holes in the capital markets for state and local governments.

But, again, this would not necessarily require additional expenditures from the Federal side. It just requires some leadership and some new innovation.

Mr. JASINOWSKI. Certainly, from the point of view of industry, these long-range problems are becoming increasingly serious.

PRIORITIES FOR RECOMMENDATIONS

Representative SOLARZ. I realize the ideal thing is to move comprehensively in dealing with all of these things as an interrelationship. But just to get a sense of the priority you attach, if you had to make a choice between, say, full funding on these educational programs—Head Start, chapter 1, adult illiteracy, also full funding for infrastructure improvement, or a dramatic reduction in the deficit—if you had to make a choice between those and in terms of its impact on productivity, economic growth of the country, which of the two would you say is more important?

Mr. JASINOWSKI. I would come back and I'll answer the question, but say, first of all, don't miss the opportunity to look at the low-cost changes in organization and focus by getting the Federal Government to focus on the global environment, to focus on the importance of exchange rates and all of that.

I know that is more conceptual, but it nevertheless is, I think, a very high priority.

Now, turning to the choice between the other two, my first priority would be a dramatic reduction in the budget deficit because that is eroding our current economic power. And my second priority would be on the investment in the young people of this nation.

Representative SOLARZ. Mr. Choate.

Mr. CHOATE. I would invest first. I would reduce the deficit second, if that were my choice. And the third thing I would do is I would find the ways through legislation to slow the hyperspeculation on Wall Street.

But I must also be honest with you, Congressman Solarz. I would urge you to deal with the question of the deficit with taxes.

Representative SOLARZ. Well, let me ask each of you—I mean, you have a difference here and I would like you to justify your views on the difference.

Mr. Jasinowski puts the deficit first and the investment in education and infrastructure second.

Mr. JASINOWSKI. Right.

Representative SOLARZ. You put, Mr. Choate, investment in education, presumably infrastructure first, the deficit second.

Why do each of you have a different position?

Mr. JASINOWSKI. My reason for it is spelled out in the prepared statement, in that the current structural deficit probably adds 2 to 3 percentage points to our long-term interest rates, which, in turn, accounts for two-thirds of the 1985 forward problem on exchange rates and continues to be a major factor on exchange rates.

And so, I believe that the budget deficit is the first priority because it distorts our exchange rates and competitive position in world markets.

Mr. CHOATE. I make my argument on this basis. There's a rhythm to life. And in that rhythm, people are moving through the

educational system. Either we capture that opportunity, take advantage of it, or, in many cases, we lose it forever.

What is happening over time is, with millions of our people, we're losing that opportunity. We can't say, let's have the world stop.

And so, my argument is we must accommodate ourselves to that rhythm.

INCREASE FUNDING FOR R&D

Representative SOLARZ. OK. Now, one or both of you spoke also about the need to increase funding for R&D. Tell me, how could this be? Supposing Congress buys this argument, that we should do more for R&D. What does that mean in practical terms with respect to congressional action?

Mr. JASINOWSKI. I think it means making the R&D tax credit permanent so that there's not the on-and-off aspect to it, and also dealing with the other R&D tax incentives that are there.

INCREASE INVESTMENT IN EDUCATION

In terms of spending, I'd put the emphasis on the educational side with respect to engineers and scientists.

Representative SOLARZ. Do you mean by having a program to provide fellowships to people going into—

Mr. JASINOWSKI. Yes. I think that, as Mr. Choate has indicated, we just have a very modest output with respect to increased—

Representative SOLARZ. How many engineers do we have here compared to Japan and Germany? Do we know? Or how many engineering students do we have?

Mr. CHOATE. Per capita, it's about half of theirs. The ratio is about half. You get into definitions of what's an engineer.

In Japan and other countries, part of what they call engineers are technicians. But real engineers, about half on a per capita basis.

Representative SOLARZ. So we have more than they do, but on a per capita basis—

Mr. CHOATE. They have half the population that we do and as many engineers as we do.

Representative SOLARZ. Well, what is the significance of that? We do have as many engineers as they do. What are the implications of that for economic growth?

Mr. CHOATE. It means that they have a far superior manufacturing capacity overall than we do. You can take precisely the same facility in Japan and here and you'll get greater productivity for the same amount of workers, the same amount of hours worked, out of the Japanese facility than you will the American facility, because what they're doing is they're able to transfer that engineering technology right to the shop floor.

Representative SOLARZ. This probably is overly simplistic, but to put it in crude terms, does it mean something like this. We have more than twice as many people, let's say we have twice as many manufacturing facilities as they do because we have an equal number of engineers. It means that they have more engineers per facility than we do.

So in each one of their factories, they have—in 40 Japanese factories, they have 10 engineers; whereas, in 40 American factories, we would have 5 engineers.

Mr. CHOATE. Plus, they have this. We divert a large number of our engineers to defense work. And it comes back to the point that Mr. Jasinowski was making earlier. To quote a Damon Runyon line, the race may not go to the swift and the strong, but that's how to bet your money.

And what's happening is because they have engineers working on the commercial side of it, they're able to be swift and strong.

Representative SOLARZ. Right. Now, we had this program in the 1950's in the National Defense Education Act. What happened? It just expired?

Mr. CHOATE. Money. It just got cut off.

NUMBER OF PEOPLE WHO BENEFITED FROM THE NATIONAL DEFENSE
EDUCATION ACT AT ITS PEAK

Representative SOLARZ. At the peak of that program, how many people were benefiting from it?

Mr. CHOATE. Gosh, I don't know. I'd have to look that up for you?

Representative SOLARZ. Would you? I'd like to find that out.

Mr. CHOATE. It was a great program.

Mr. JASINOWSKI. The other reasons to support that expenditure and investment is that the Japanese have beat us primarily in manufacturing quality. Our comeback in recent years has been based on achieving manufacturing quality improvements. And that requires engineers.

And that is where the fight is going to be in the future in terms of the firm-to-firm battle. Who makes the best products will be the principal determinant on which we compete with these other countries.

Representative SOLARZ. And that's what we need the engineering for?

Mr. JASINOWSKI. That's why we need more engineers. That's where we need more emphasis in our corporate culture on manufacturing versus finance.

Representative SOLARZ. OK.

Mr. CHOATE. I would add one other point, just as a marginal expenditure with enormous implications. And that is in our trade negotiating capacity.

At any given time, right now, I think that we have on active duty something in the neighborhood of 1,058 general-grade military officers. We have in our office of U.S. Trade Representative something like 138 people, totally staffed. Here, if these trade relations are so important, what are we doing to fully back it up, to have the data and the information, to have the continuity?

I think this is going to become increasingly important to us.

ADVISABILITY OF A NATIONAL SECURITY ACT

Representative SOLARZ. How would you gentlemen feel conceptually about the idea of what might be called an omnibus national security act for the 1990's, in which we would simultaneously authorize funding for the various programs you've identified, in edu-

cation, in infrastructure, in R&D, and the like, while also providing for dramatic reductions in the deficit?

The devil, of course, is in the details. But I mean, conceptually, is this an approach that—

Mr. JASINOWSKI. I have to say that, conceptually, I think it seems dated as a way to approach a fast-moving environment in which words like "omnibus," I think, are just out of touch with the way in which things are changing.

I would respectfully suggest that, while it might be appropriate to outline that conceptually, the actual legislation would try to be done in a targeted, seriatim fashion, whereby—

Representative SOLARZ. Well, let me put it differently. I don't anticipate such a bill would be adopted. Let's call it comprehensive national security act and get off the word "omnibus."

Would you be prepared to say that this is exactly what we ought to be doing, and if we did them, we'd be in a much better position to protect our national security as we move into the 21st century?

Mr. CHOATE. I would think, first, whether it's called omnibus or comprehensive, that it's the way to go because it seems, again, to be the rhythm of how legislation moves. And second, I think it's needed to be an omnibus bill for a simple reason.

Many of the things that are required are in themselves small things. And they're small things that cannot command national attention of and in themselves. But they're important. And by combining several things together, then you make something that is in itself important.

Mr. JASINOWSKI. I certainly, and the NAM, would like to work with you on it and find as many things as possible to support. Maybe something more comprehensive might be productive. I do think we have to keep the deficit reduction part of it. I think we just don't want to go back to a notion of let's throw everything together that might relate to this point of view.

Representative SOLARZ. Well, each to his own. But if we are to do something like this in deficit reduction, I assume you both agree that if such an approach were tried, deficit reduction would be an important element of it.

Mr. JASINOWSKI. Yes.

Mr. CHOATE. Yes.

Representative SOLARZ. Say, as a general ratio, would it be fair to—supposing you had a ratio of 1 to 1. In other words, for each increased \$1 of investment in human and physical capital, we had \$1 reduction in the deficit.

Does that sound reasonable?

Mr. JASINOWSKI. I think that's something to put on the table. It sounds like a reasonable way to go about it.

Representative SOLARZ. I'm just talking conceptually.

Mr. JASINOWSKI. Of course.

Representative SOLARZ. Now, let's assume that we were to do that. Obviously, in the deficit reduction part of it, you'd get a certain amount from defense. Possibly some from domestic spending.

But there would undoubtedly have to be some revenue increases. Probably of a fairly sizable nature. I don't know what the spending part of this would come up to, but over the course of several years, it would undoubtedly add up quite a bit.

ADVISABILITY OF A VALUE-ADDED TAX

What would be your favorite candidates for major revenue producers and where in that would you put the possibility of what I would characterize as a progressive value-added tax?

In other words, where you not only excluded necessities—food, housing, and shelter—but perhaps also had tax credits for people below a certain income level so that they, in effect, didn't end up paying anything, or very little in the VAT.

Mr. JASINOWSKI. I would put a progressive value-added tax at the top, and it's one of the items that we supported in our testimony and I think is—again, if the problem is investment in savings, you have to tax consumption.

Representative SOLARZ. Right. How much do you estimate could be raised by a progressive VAT?

Mr. JASINOWSKI. That's a political question more than it is an economic question. As you know, it's a money raiser. In fact, that's why many people oppose it. I think you can raise what you can justify on the other side of the ledger, to be honest with you. I've always thought that a VAT would be more successful in this country than people realize, if they spend it for the right thing.

Representative SOLARZ. Well, what I'm trying to get at, I gather there's a sort of traditional formula on gasoline taxes. Every penny you raise is a billion dollars.

I assume there must be something on a VAT, a 5-percent VAT or 10-percent VAT. What does that raise? And how much do you have to subtract, say, if you give a tax credit to everybody with income under \$15,000 or \$20,000, whatever cutoff you pick?

Do you have any sense of the magnitude?

Mr. JASINOWSKI. My recollection is that according to the base definition used in our internal econometric work, each percentage point raises about \$30 billion. But I think it depends on how it's configured. I'd like to get back with you or with the staff with some numbers.

Representative SOLARZ. Could you give us that?

Mr. JASINOWSKI. Yes, of course.

Representative SOLARZ. Do you have the capacity to crank into that what it would mean for the overall, to the net collection if you had a tax credit for people at various income levels?

Mr. JASINOWSKI. Yes, of course. We'd be happy to do that. I have a fellow on my staff who's very interested in this question and he will do anything you want, practically.

Representative SOLARZ. Well, perhaps, say, at levels of \$10,000, \$15,000, \$20,000, if you held people harmless at that level.

Mr. JASINOWSKI. Fine. In fact, before we run it, I'll have him talk with the staff and be sure that we do what you want.

Representative SOLARZ. Right. And is there a way of translating this into what this would mean in the actual amount of money that people at different income levels would be spending on taxes, paying the taxes?

Mr. JASINOWSKI. It can be done. Whether or not we can with our model, I don't know. But it certainly can be done.

Representative SOLARZ. If you could. I'd like to have it before I plunge into the icy waters.

Mr. JASINOWSKI. Yes.

Representative SOLARZ. I'd like to have a sense for people with an income of \$30,000, how much more do they end up paying in the VAT.

Mr. JASINOWSKI. Of course.

Representative SOLARZ. \$50,000? \$100,000? Whatever.

What do you think about this concept?

Mr. CHOATE. I much prefer a VAT, not only because it cuts consumption; it raises revenues in large amounts. It will also help us in our trade situation since it's GATT-compatible.

Representative SOLARZ. Tell me. I have the impression, and a lot of my liberal friends sort of neuralgically oppose this because, they say, it's a national sales tax and a sales tax is supposed to be regressive. Obviously, liberals tend to favor progressive taxes. I know I certainly do. I think there ought to be some relationship between capacity and what you pay.

Mr. JASINOWSKI. Sure.

Representative SOLARZ. But if you can make a VAT progressive through the use of a tax credit, then is there a liberal objection to this?

Mr. JASINOWSKI. I think the liberal objection is on the regressivity side, and I think you can address that. I think the conservative objection is that it's a money raiser that will let government get out of control. And I think that that can be addressed by trying to prescribe pretty carefully how the VAT is used.

Representative SOLARZ. Well, how do you think conservatives would react to a progressive VAT in the context of a comprehensive approach in which they could see if it was guaranteed, that, in effect, for every dollar of increased spending, there was a dollar reduction in the deficit, and the spending was related to programs that were clearly connected to productivity?

Mr. JASINOWSKI. I think you'd get a response in which some would be supportive and many would not. It would be a pretty eclectic response, I think.

There is not widespread enthusiasm in the conservative community for a value added, but there is some.

Representative SOLARZ. Could you do one other thing in your cranking up these numbers?

Mr. JASINOWSKI. Sure.

U.S. TAX BURDEN

Representative SOLARZ. And that is, assuming VAT's at various levels as the main way of raising money. What does that mean to the total tax burden in the United States compared to the other OECD countries.

I gather we're the lowest now. But how much? Would that increase it 1 percent, 2 percent, or 5 percent?

Mr. JASINOWSKI. Increase what, now? Again, just so I get it right, Congressman Solarz.

Representative SOLARZ. Tax burden.

Mr. CHOATE. Relative tax burden.

Mr. JASINOWSKI. All right.

Representative SOLARZ. State and local. My impression is, right now, that our tax burden as a share of GNP is lower than any of the other OECD countries.

It that correct?

Mr. CHOATE. That is correct.

Mr. JASINOWSKI. Yes.

Representative SOLARZ. So the question is, How much would this add to the total tax burden? One percent? One-tenth of 1 percent? Three percent? Where would that leave us in comparison to other countries?

Mr. CHOATE. I would make one other observation. One also has to consider that relative to, if we don't do something like that, where are we going to be financially? We're going to be at the end of this next decade, on our current path of \$4½ or \$5 trillion of national debt, which is an enormous drag upon this economy.

U.S. EXCHANGE RATES

Representative SOLARZ. Now, Mr. Jasinowski, you spoke about the problem with the exchange rates. I was under the impression that our exchange rate situation improved somewhat.

Mr. JASINOWSKI. It has substantially, and we've had a big increase in our exports as a result.

Representative SOLARZ. Do you think that it needs to decline further?

Mr. JASINOWSKI. I think it needs to decline further. And, in fact, exchange rates have gone up 15 percent in the last 18 months, and most people don't realize that from the decline they reached following the Baker initiative in 1985. Exchange rates came down 40, 50 percent as a result of that. They have now come back up 15 percent. And that is already beginning to have an adverse effect on our competitive position in the world.

U.S. INDUSTRIAL POLICY

Representative SOLARZ. There has been a lot of debate about this question of industrial policy.

What are your views on whether it would be desirable for us to have an industrial policy?

Mr. JASINOWSKI. What do you mean, Congressman?

Representative SOLARZ. Well, you tell me what you mean. Are you for it or against it?

Mr. JASINOWSKI. That sounds like somebody from New York. [Laughter.]

Mr. CHOATE. I can say this. I wrote a book on it in 1980. It's the worst selling book I ever wrote. [Laughter.]

But at least what I mean on it, at least after a period of reflection, is I think that there are a series of actions that require public and private cooperation. Sematech, I think, is a clear example of that. There are a series of other technologies where we can have consortiums.

I think it is also increasingly important to do as the Europeans and Japanese do, is take certain sectors of the economy and say that these truly are going to be the industries that determine the

21st century, and say that we will not be left out of those industries.

Representative SOLARZ. Basically, you're talking about picking winners. I gather the argument that people have advanced against that is if you look back historically in the last few decades, at the beginning of the decade, a lot of the industries that turned out to be the big winners were not self-evidently the big winners at the beginning and we might not have picked them if this—

Mr. CHOATE. Congressman Solarz, I think that my profession makes that argument, but it's a silly argument. I mean, we can say right now what are going to be some of the winners in the 21st century.

Representative SOLARZ. What are they?

Mr. CHOATE. We know that microelectronics and computers are going to be a major winner. We know that biotechnology is going to be a major winner. We know already that autos and auto production are going to be a major winner because we've configured our society, as have the Europeans, the Japanese, and all the developing societies, around autos.

We know that satellites are going to be a winner. We know that commercial aircraft is going to be a winner. We can see that the production of construction equipment and all of the related activities are going to be a winner because of the backlog of activities that we have.

This is not a dotting exercise to figure out what are going to be the major industries.

Representative SOLARZ. OK. You've named about a dozen industries which you think will clearly be winners in the 21st century. If we were to take your approach seriously, what would we actually do? I don't mean in each individual case, but conceptually. Would we have an industrial development bank to which we would give \$100 billion or \$500 billion, or whatever, and that bank would be empowered to make loans to companies in these dozen areas or so? Or do you have some other way?

How do you translate this concept—here are sure winners. In order for us to make sure that we win the race, government help is needed.

What's the mechanism for getting the Government help?

Mr. CHOATE. It may also not be a question of winning a race; just to stay in the game or to stay equal.

I would start with industry itself. I would have government, in effect, say, look, we can't do everything. We have limited amounts of resources. But we are putting up resources and many of those resources make a difference.

So, what I would say to industry is that, in an area, if you wish to come and join together to maintain your competitive position in the world, we will take a look at antitrust exemptions where you can work together. We will talk to you on a shared basis of how, for example, we will jointly finance research in engineering, and perhaps underwrite training of scientists and engineers and others.

Under certain circumstances, we might join with you in financing, both export financing and in development financing. And we will take a look at the whole of our regulatory and other activities and see how they may now unnecessarily impede you.

Representative Solarz. Right now, we have no sort of department or agency which is charged with that responsibility?

Mr. CHOATE. No. In fact, we have a cacophony of responses, in many cases, that offset each other.

Representative Solarz. How would you structure a response along those lines? Would you create a new department? Would you give Commerce the authority? How would you do it?

Mr. CHOATE. I would just simply use an existing agency. The Department of Commerce could easily do something along that line.

Representative SOLARZ. In other words, you might, for example, mandate Commerce to develop a list of major industries of the 21st century, then instruct them to meet with the leading firms in each of those areas to devise a program of action to submit to the Congress and to the President in terms of what we could do to facilitate the competitiveness of our firms in those areas?

Mr. CHOATE. I would do it gently, in this sense. I would say to Commerce, invite the firms to participate and talk about the ray of targeting of existing Federal expenditures that you would do. And say to the firms, if they wish to participate and, let's say, 60 to 70 percent will join, plus their unions, plus their suppliers, plus their financiers, then you will do these things. You may have a compact.

But also say to other firms, that if you choose not to, then you do not have to participate. Of course, you won't get some of these benefits.

Representative SOLARZ. So you would have industrial competitiveness councils in each of these sectors in which the industry and the unions, the consumers, whatever, would all participate under the direction of Commerce, with a view toward developing the kind of action program for joint government-private sector action.

Mr. CHOATE. I would not have them operating under the direction of Commerce. What I would have them do is, in effect, Commerce would be a convenor. They would effect a compact with the industry. Each side will have responsibilities. The Federal money would not come or the Federal regulatory activities would not be waived unless the private side met their responsibilities.

Representative SOLARZ. Right. But sort of under the guidance of Commerce, in each industry, a kind of program would be drawn up which would entail both government action and private sector action. And then that would presumably be submitted to the President and the Congress because, presumably, several of these things would require action on their part.

Mr. CHOATE. Oh, yes.

Representative SOLARZ. Now, Mr. Jasinowski, how do you respond to what we've just heard, beginning with the notion that we do know which industries are going to be among the winners in the 21st century and therefore, we ought to have the kind of approach Mr. Choate suggested?

Mr. JASINOWSKI. Well, I must say I would start with a personal plea to you, Congressman, to not embroil this effort into that debate because, while Mr. Choate, I think, lays it out in a very intelligent way, it is not going to work that way, and most people aren't going to perceive your efforts in the same kind of way the discussion has occurred here.

You will be attacked and your whole effort, I think, will be seriously undermined, partly because the merits are not as sound as Mr. Choate lays out, and partly because the perception is deadly.

So, I certainly would urge you not to take on anything that both supports a broad-base consumption tax and industrial policy at the same time. And I would leave out the industrial policy.

Now having said that, there's a lot of merit to what Mr. Choate says about trying to focus on encouraging leading edge industrial activities. And I would do that primarily through the technology route and simply focus on generic technologies and the technological support that surrounds the areas that have great promise, without having the Government getting into all the actual implementation.

So if you want to put greater emphasis on biotechnology as a nation, do it in terms of technology, and then beyond that, clear away the things like antitrust and other things that can be a problem.

But don't start convening councils that are going to talk about the way in which we're going to develop these industries because they'll never keep up with the market. People at Commerce can't do this. They're not able to move quickly enough. And it will end up being a pork barrel activity of the 21st century to rival the kind of pork barrel activities we've had in highways and other things in the past.

But most importantly, I would just urge you not to get involved because I think it will dissipate energy from what could be a very promising activity.

IMPACT OF GLOBALIZATION

Representative SOLARZ. Does the process of globalization, business behavior, mean that it will be increasingly difficult and ultimately impossible for the United States or any other country to be technologically self-sufficient?

Mr. CHOATE. There will be great interdependence. The question increasingly is who will control the leading edge technologies. There are certain pivotal technologies that make the difference, like semiconductors. The question, therefore, is who will control those.

That should be our focus.

Mr. JASINOWSKI. I think the globalization will make it virtually impossible for any country to be self-sufficient in technology, that we will increasingly, as a globalization process, because that's what companies are doing. I mean, we can talk any way we want to, but there are companies out there today making joint ventures to share technology for certain high-tech activities that are crucial for them to compete in this world.

And I would say this whole business about joint ventures and strategic alliances that's going on is one of the principal things to keep in mind in terms of this global development because it's changing the relationship among companies all across the world.

SEMATECH FUNDS

Representative SOLARZ. Just one or two other questions. I saw there was a story in this morning's Times to the effect that the administration is cutting off funds for Sematech and other high-tech projects.

I gather from the thrust of what you've both said, that this runs counter to what we ought to be doing, in general.

Mr. JASINOWSKI. The Sematech thing I don't know well enough to make a judgment on, but I think we should be careful about investing government resources beyond the technology state. And Sematech, as well as I understand it, is a manufacturing development process, and for that reason, I would be very cautious about investing government money in it, and at this point not support government investment in Sematech.

Mr. CHOATE. If the Federal Government withdraws its support in supporting industries that are coming together in that consortium, and steps back from providing this kind of assistance when our major competitors in Germany and Japan and Korea and Taiwan do, they're absolutely going to doom us to a secondary position in the technology race.

It, I believe, would be disastrous.

Mr. JASINOWSKI. Let me modify my comments, Congressman, simply to say that, having not really studied it as carefully as I'd like to, I'd not like to be on the record as opposing government support for it. I think that it would be presumptuous of me to do that.

RECOMMENDATIONS FOR THE 21ST CENTURY

Representative SOLARZ. If one was to recommend as an approach to the economic challenges we're going to face when we move in a post-cold-war era into the 21st century, legislation to deal with the educational and economic and infrastructure, competitive productivity problems we have, would it be fair to say that unless that legislation also provided in some concrete ways for a reduction in the deficit through, among other things, increases in revenues, that it would not be taken seriously?

If all you had was the increases in spending—

Mr. CHOATE. You have to have the revenues attached.

Mr. JASINOWSKI. I think that's right. And, moreover, the only threat that I've been able to see to our economic power that's absolutely clear is this dependency on foreign debt associated with this large Federal deficit that works its way through the exchange rate.

I mean, that is the principal threat.

So I think you bring a lot of credibility to the effort by some deficit reduction effort.

Representative SOLARZ. Right. Well, let me thank you both very much. This has been for me very illuminating and very helpful and very productive.

I think you've each agreed to get back to us with some supplemental information. Let me say, as we proceed through these hearings, and particularly as we grapple with the task of trying to see if some kind of a comprehensive approach can be formulated, we certainly welcome your input and your suggestions about what should be and shouldn't be included in such a package, leaving

aside whether you would agree that, tactically, that's the best way to go. But if someone were going to do it, I certainly welcome your suggestions about what should and shouldn't be included.

Mr. CHOATE. Well, I would say this. It has been a very stimulating exchange and I would add that, at least the strategic approach that you're speaking to, is precisely what the country requires.

Mr. JASINOWSKI. I'd like to just add that I think, as I said at the beginning, your timing is extremely good and I think your emphasis on economic power and the way you've discussed bringing all these things together in a strategic way is something which I think is important. We would very much like to work closely with you.

Representative SOLARZ. I really appreciate what you've both said very much.

I wouldn't wager my life savings, such as they are, on the fact that some legislation which attempts to deal with these problems comprehensively will be enacted. I know how the system works and how it doesn't work.

But at the same time, even if it isn't enacted, it seems to me the introduction of it could, in and of itself, serve a very useful purpose by putting before the Congress and the country the dimensions of what needs to be done. It can certainly facilitate a debate on these questions. It can focus attention on it. And it could also perhaps establish a benchmark by which more incremental efforts can be judged, because I think we do need as a nation to begin to say, OK, we're moving into a new era. For 40 years, we've pursued policies which have kept the peace, maintained freedom, which ultimately appear to be on the verge of triumph.

The ideological character of our adversaries is rapidly being transformed into a much more benign and democratic system. So we're going to face new challenges. We got back at the end of the Second World War and, of course, we didn't do it in one comprehensive approach, but if you look back on it, there were a whole series of things we did from the GI bill, through the national highway system, through the decision to maintain a standing army of substantial size, and so forth.

If you put all of that, and a policy of containment together, we had a strategy. The strategy was to prevent the communization of the world, the expansion of Soviet power and the defense of freedom and our values, and to permit the kind of strong economy that would make that possible. And it succeeded brilliantly. Not that we don't have problems. Obviously, we do.

Now we have to move on to a new stage. I think the worst thing that could happen would be for us to assume, as some crackpots have suggested in this town, that history is now at an end, and therefore, we don't have to worry about anything. We have no problems.

I think this is probably what they told Charlemagne and the Holy Roman Empire. [Laughter.]

Mr. CHOATE. Actually, history is going to get exciting at this point.

Representative SOLARZ. Absolutely.

Mr. JASINOWSKI. That's true.

IMPACT OF GERMANY'S UNIFICATION

Representative SOLARZ. One final question. In terms of the extent to which Germany is a competitor, how much does it add to Germany's ability to compete if reunification takes place? Does it make a major difference or not?

Mr. CHOATE. It will make a major difference, but it will come in the mid-1990's. West Germany now has to absorb roughly a million people. There will be costs associated with that.

They're dealing with really a very productive people. They have the political problems. There's going to be the investment requirement.

So there will be a lag into, I'd say, the early, mid-1990's before those investments begin to pay off. Not dissimilar to what happened with the Marshall plan in Europe in the 1940's.

Mr. JASINOWSKI. I would just suggest that the lag will be longer, that it really takes a decade. But that once that happens, they will be much stronger. But the capital problems and some of the market problems are very formidable in East Germany. They're a long way from a market system and it's not clear that they have a political system which is prepared to move quick enough.

Maybe if everything politically was done, you could have it by the mid-1990's. But I don't see that they're able to move that quickly politically.

Mr. CHOATE. If the economics are going to move quickly, I mean, there's also going to be the subsidiary problems which are going to be major. What are they going to do with the Turks inside that society?

So we may have a whole series of other problems that get exported.

Representative SOLARZ. Gentlemen, thank you very much.

[Whereupon, at 11:50 a.m., the committee adjourned, subject to the call of the Chair.]

[Mr. Lester C. Thurow, professor of economics, Massachusetts Institute of Technology, was invited to participate in this hearing day, but was unable to do so. His prepared statement follows:]

PREPARED STATEMENT OF LESTER C. THUROW

CATCH UP; GET BACK IN

Rapidly the language of military conflict is becoming the language of international economics. In the book, "A Japan That Can Say 'NO'" the Japanese authors assert that economic warfare will replace military warfare in the 21st Century and that Japan will conquer both the Soviet Union and the United States. Looking East rather than West, the same terminology is heard -- Fortress Europe.

The language of warfare is inappropriate. In the future we will play an economic game that is both cooperative and competitive. The metaphor of football is more apt. We must agree on the nature of the game, the rules of play, the referees, the methods of keeping score, and the prizes for those that win. There is a cooperative element. But we will also want to win.

Go abroad and ask any of the major countries what industries they think they must have to give their citizens a world class standard of living in the decades ahead, and they will give you the same list -- micro-electronics, biotechnology, and the new materials industries. Everyone will not be successful in having those industries. The current jockeying over HDTV is merely a symbol of what is to come.

With current developments in middle and eastern Europe, it is important to realize that the Common Market is

potential much more than an integrated market of 320 million people. If the Europeans can get their act together, Europe is a potential market of 850 million people that has two characteristics that no other 850 million people can match. Each of the 25 countries is rich or middle income. We tend to forget that middle and eastern Europe has a per capita GNP far in excess of those on South Korean or Taiwan.

More importantly middle and eastern Europe up through the high school level may have the best educated populations in the world. With the right incentive systems, there is no reason why middle and eastern Europe could not grow in the decades ahead as western Europe did in the 1950s and 1960s.

There are two countries in the world with leading edge high technology research (the United States and the Soviet Union). There are two countries in the world with leading edge production process capabilities (Japan and Germany). In the 1980s we Americans have paid little attention to the German's trade surplus even though it is almost twice as big as that of Japan on a per capita basis. Suppose you add 20 million low wage well educated east Germans to the German economy and combine German production process capabilities with Soviet capabilities in high end technologies and then put both in a market of 850 million people. You have a potential competitor beside which Japan will pale.

If this happens the American economy will no longer be the major league of world economics. It will be just

another minor league player attempting to break into the big time.

We face a strategic problem. For almost one hundred years since we passed Great Britain in 1900 as the world's premier economy, we have not had to play the economic ball game played by the rest of the world. It is a ball game called "Catch Up; Get Back In".

We were ahead in almost every industry so we did not need to catch up. We were in every major high wage industry so we did not need to get back in. But there are now industries where we need to catch up (machine tools) and there are now industries where we must get back in (consumer electronics) if our citizens are to have a world class standard of living in the future. But we don't know how to play "Catch up; Get Back In".

The rest of the world knows how to play this ball game. Think of Europe in the late 1960s. It did not build civilian aircraft. It decided that it must be in this industry if its citizens were to have a world class standard of living. The first attempt to get back in was based on a leap frogging technology -- the Concorde. The Concorde was a technical success but an economic failure. The second attempt was the Airbus. The Airbus is now a success but it took 15 years, \$15 billion dollars, and a captive market (the government owned European airlines) to get back in.

Or consider the Japanese effort to catch up in computers and micro-electronics. This effort involved

holding down the market share of IBM Japan with devices such as the government financed Japanese Computer Leasing Corporation and efforts to speed local developments with special joint R&D projects. The recent below cost computer bidding wars in Japan illustrate the problem. But today in micro-electronics, Japan's market share exceeds that of the United States.

In the days after World War II when we were 50 percent of the world GNP, we could insist that the world play the economic game with our rules. But today we are just one-fifth of the world GNP and the world can insist that we play by its rules -- not our rules.

We both play a ball game called football. But their football is what we know as soccer. We aren't very good at soccer but the world is going to play soccer. As a consequence we are going to have to learn how to play economic soccer.

The principles of the new game are simple. The basics -- labor skills, capital availability, and technology -- have to be as good here as abroad. They are not. On top of those basics and good corporate strategies one must place good national strategies. National strategies are not central planning. They are what we would call a game plan. All of our successful competitors have a national strategy -- an economic game plan. We don't.

First the basics. Our colleges and universities are still world-class but our K-12 education system is not.

Seventy five percent of our work force does not graduate from college. The broad outline of what we must do is known. We have to have a world-class school year -- 220 and not 180 days. We have to have world class teachers and this means salaries that are competitive with other occupations in America. We have to have an external standard of what it means to graduate from high school. Every other industrial country does this with some form of national examinations.

Our savings and investment rates are unacceptable. We cannot invest half what Japan does and continue to compete. This means saving more. In the last 12 months our real interest rates were 5.9 percent, those in Germany were 3.6 percent and those in Japan were 1.4 percent. We cannot survive that differential. There are only two ways to save more. Governments can run surpluses in their budgets; individuals can consume less. Realistically the latter means restrictions on consumer credit and consumer dissaving.

Our civilian R&D spending is not world class. We invest about 1.8 percent of GNP while Germany invests 2.5 percent and Japan 2.8 percent. On the human side, the proportion of our college population going into science and engineering is also not world class.

Finally there is the problem of having a good game plan. There are a variety of foreign examples as to how it might be done. MITI orchestrates the development of a game plan in Japan. The large industrial banks such as the

Deutsche Bank orchestrate the development of a game plan in Germany. The French have their system.

But none of these foreign systems could easily be grafted onto the U.S. system. We are going to have to find a uniquely American way to develop a game plan that will allow us to play the world economic game of the next two decades.

If we don't improve the basics and develop a good game plan, two decades from now we simply won't have a world class standard of living. Those without game plans lose to those with game plans.

Catch Up; Get Back In isn't going to happen by spontaneous combustion. In consumer electronics and the HDTV fight, for example, the sales of Zenith (the last American participant in consumer electronics) are less than the R&D budgets of several of the large Japanese and European players in that market. If America's future in consumer electronics depends upon Zenith alone, there is no future.

Catch-Up: Get Back In -- that is the name of the game. In the 19th Century we were the world's best at this game. We caught up with Great Britain. Today we are out of practice. Tomorrow?