

**“Rethinking the Commanding Heights:
The Future of Globalization”**

Third Annual JAMA Lecture with Daniel Yergin
March 12, 2002

With introductory remarks by Harry Harding, Dean, Elliott School of International Affairs, The George Washington University, and William C. Duncan, Ph.D., General Director, JAMA USA.

Harry Harding: I am very pleased to welcome you to the third in a series of annual lectures on international economic issues, made possible by the generosity of the Japan Automobile Manufacturers Association, or JAMA. JAMA has enabled the Elliott School to invite leaders from the academic world, business, government, and the non-profit sector to address major issues related to trade, investment, and development. The first speaker in this series, back in 2000, was Jeffrey Sachs of Harvard University, who spoke about how globalization could be used to promote international development. Last year’s speaker was Robert Hormats, Vice Chairman of Goldman Sachs International and former Assistant Secretary of State for Economic and Business Affairs, who addressed the need to reduce international divisions in the global economy. (Transcripts of these stimulating presentations are available on the Elliott School’s website.)

Tonight, our guest speaker is Daniel Yergin, Chairman of Cambridge Energy Research Associates or CERA, who will speak on the subject “Rethinking the Commanding Heights: The Future of Globalization.” I’ll say more about Mr. Yergin and his topic in a few minutes. But first, let me introduce William Duncan, General Director of the Washington office of the Japan Automobile Manufacturers Association, to say a few words. Bill, the Elliott School is very grateful to JAMA for its support of this outstanding series of lectures, and we’re delighted to have you here this evening.

William Duncan: Dean Harding, Dr. Yergin, students, colleagues and friends. The Japan Automobile Manufacturers Association is pleased to sponsor this, the third annual JAMA Lecture at the Elliott School of International Affairs. This lecture series offers to The George Washington University faculty, students and the Washington Community an important opportunity to examine the wide range of international changes we have come to call globalization.

We, JAMA, are the association representing the manufacturers of cars, trucks and motorcycles in Japan. Since it’s founding in 1967 JAMA has represented thirteen member companies. You are likely familiar with most of the names – Toyota, Nissan, Honda, Mazda, Mitsubishi, Fuji (Subaru), Isuzu, Suzuki, Daihatsu, Hino, Nissan Diesel, Kawasaki and Yamaha. As of January of this year we are 14 members, the newest addition being General Motors Japan. GM Japan became eligible to join JAMA last November when they began production in Japan of GM’s new Chevrolet Cruze. This

vehicle is produced jointly with the Suzuki Motor Corporation. GM Japan is an exciting new addition to the JAMA family.

GM Japan's joining JAMA is yet another indication of the truly global scope of our association. Our members produce and sell vehicles in over 75 countries. In America over 60 percent of the vehicles JAMA member companies sell here are produced here. In addition to their extensive global operations many of JAMA member companies are owned in whole or in part by international partners. The owner of GM Japan of course is obvious to all. In addition GM owns 49 percent of Isuzu and 20 percent of both Fuji and Suzuki. Renault owns almost 37 percent of Nissan Ford owns slightly more than 33 percent of Mazda and Daimler Chrysler owns 37 percent of Mitsubishi Motors. We are more than a Japan community of automakers. We are also a world community of automakers.

Today's global community has been shaped by a free and expanding flow of trade, investment, technology and communication between nations. Maintaining, fostering and understanding this trend is clearly important to all our companies. It is for this reason that we encourage a full and open discourse on all aspects of globalization and how it is affecting nations, their people, and their consumers.

We want to especially thank Dr. Yergin for speaking to us today. He is renowned not only for his significant historical work on the development of the Petroleum Industry, one of the first great modern global industries, but also for his practical experience in the politics and economics of energy production, distribution, and consumption around the world. Also on behalf of JAMA I would like to thank Dean Harding, Kathleen Reilly and all those at the Elliott School who have made tonight's event possible. Finally, our thanks go to you the audience for your interest and participation.

We look forward to hearing Dr. Yergin's lecture. Thank you.

Harry Harding: Our speaker this evening is Daniel Yergin, Cofounder and Chairman of Cambridge Energy Research Associates. Dr. Yergin received his undergraduate education from Yale, and did his graduate work at Cambridge. He is perhaps most widely known for his work on the world energy situation. His 1991 book, The Prize: The Epic Quest for Oil, Money, and Power, received the Pulitzer Prize for general nonfiction. He serves on the Advisory Board to the Secretary of Energy, and has received the U.S. Energy Award from the United States Energy Association for his lifelong achievements in this field. His firm, Cambridge Energy Research Associates, provides analysis and forecast of various international energy markets, including oil, natural gas, and electricity, and has offices around the world.

But Dr. Yergin's interests are even broader than this. His book on the origins of the Cold War, Shattered Peace, was named Best Book of the Year by the National History Society in 1977. More recently, he is the co-author of Russia 2010 and What It Means for the World, which offered a set of scenarios for Russia in over the medium-term

future. He is a Trustee of the Brookings Institution and a member of the Committee on Studies at the Council on Foreign Relations.

And, most recently, he has co-authored an influential new book called The Commanding Heights: The Battle Between Government and the Market Place that is Reshaping the Modern World, which deals with the evolution of the world's changing attitudes toward politics and markets since the end of World War II, and particularly during the age of globalization. The book has been translated into 13 languages and is being made into a six-hour documentary for PBS. Tonight, Dr. Yergin will give us a preview of that documentary, but will also explore the extent to which 9/11 and other recent developments have altered the future of globalization.

Please join me in welcoming Dr. Daniel Yergin to the Elliott School.

(Dr. Yergin's lecture was preceded by a five-minute video clip of his six-hour documentary series based upon his book The Commanding Heights. The Washington Post called the series "brilliantly successful...no more important program for making sense of our life and times has been on the air in at least a decade.")

Daniel Yergin: That's the five-minute version. The six-hour version airs on PBS. But it gives you a small taste of the full film.

It is really a pleasure to be here. Dean Harding, Bill Duncan, Ladies and Gentlemen, I want to thank you for joining us this evening for this discussion on the global economy. I thank the Elliott School for the invitation and this platform. It is an honor to be the third JAMA speaker here at the Elliott School. This lectureship itself demonstrates the partnership between our two nations and also, of course, underscores the leading role the Japanese automobile industry plays in the world economy. There have been very distinguished lecturers here before and I hope to continue that tradition.

We just saw a few minutes about the future. I want to go back a few years to 1876. That year, a Scottish-born Canadian engineer missed a train connection in Ireland; the reason was there was a problem with the times on the schedule. So this gentleman, named Sanford Fleming, spent the night in a small Irish station, brooding. Out of that evening came a conviction that it was high time to do something about time.

At that point, every city and town in most parts of the world, and certainly in the United States, had its own time. High noon was exactly high noon, when the sun was at the top. In the United States railway timetables were set to the local time of the head offices of the particular railway. High noon in Boston was actually 12 minutes ahead of high noon in New York. Now, local time like this was no problem, it even made sense, so long as the main distance most people went was to the nearest agricultural field to work.

But it no longer worked in the first age of globalization in the late 19th - early 20th century when railways, steam engines and the telegraph tied the world together

Sanford Fleming came out of this short night in the train station with a conviction that the world needed to agree on new rules of the game, new rules of time. As a result of his efforts, a great prime meridian conference was held in this city in 1884. It wasn't easy; the French disagreed. They said zero time should not run through Greenwich, but rather it should run through Paris. But eventually reason prevailed. The time system was put in place, and it was a critical element for that age of globalization to work and to make the system work. Out of it we got our twenty-four time zones and a system that enabled a rationalization of commerce and travel.

This is a parable for the era in which we now live: this second age of globalization and the quest to find the new rules of the game for this new era. That is the theme I would like to develop this evening, to provide a framework for thinking about this second era of globalization.

Globalization itself as a concept is controversial. I find it somewhat amazing in a way that this rather abstract five-syllable word should attract such fiery discussions. But it is partly, I think, because people see in it what they want to see. And what I want to do is bring it down to earth. Of course since September 11th it is also a more troubled concept. The borderless world -- I think a phrase we actually got originally from Japan ten or fifteen years ago -- now has borders again. And there is the question of how much is the international trading system, among others, going to be slowed down, be made more difficult, and more expensive because of the changes post-September 11th.

And yet, with those questions asked, with all that said, I think that globalization continues to be a defining characteristic of our times. It is something we struggled to make sense of, first in the book The Commanding Heights: the Battle for the World Economy. It is interesting, when the book was published in Japan, we could not translate the title. I talked to many friends in Japan, trying to get the right translation. I remember that Yoriko Kawaguchi, now Japan's Foreign Minister, suggested that, if one wanted to stick to that kind of title, we use "Control Tower." But many, including her, instead recommended going to the core topic. And the book in Japan became known as State and Market, which of course is its theme. And then in the last two years, while so much has been happening in the world, we spent transforming it into this six-hour PBS series. It was very challenging. I had done it earlier with The Prize (known as The Century of Oil in Japan). But this project was maybe five times as hard. We went to five continents, twenty countries and conducted 170 interviews. We found our stories! You got a sense of that tonight. It is the first major series on this topic on American television in the last 22 years! I think it is likely to be, at least in the medium of television, the major exploration of this subject for some time.

Just think about all our ideas that have changed over five years ago, three years ago, two years ago, a year ago. It is quite striking how much keeps changing, how rapidly things keep changing. Remember the New Economy? Well, the New Economy has come and gone.

Indeed if we remembered our history we would have known that there had been a new economy in the 1920s. And that should have been a tip off that things might not go straight up. In fact, we had it in that little clip that the radio stocks of the 1920s were the Internet stocks of today. People could just not get enough of them. It should also remind us that, before this age of globalization, there was indeed the first stage of globalization, which was quite remarkable. Over 50 million people emigrated from Europe to America without passports. New technologies tied the world together. There were emerging markets, of which Argentina and the United States were the leading examples. There was the substantial and rapid growth of middle classes, which changed the way countries were governed. There was the challenge of industrialization and response to it—reform. And we had a changing role of the state, which moved to take up this regulatory role in these increasingly industrialized countries.

It was an optimistic time. But it was brought to an end by a terrorist bullet on the streets of Sarejevo in June of 1914, killing an Austrian Archduke and triggering the guns of August and the First World War. Out of that came a fractured world economy, one that ended up in a Great Depression. And two of the archetypes we use in our show provided a comment on it. John Maynard Keynes talked about that remarkable age coming to an end in August 1914. Fredrick vonn Hayek put it more simply. He said we didn't know how fragile our civilization was.

That war and the Depression set the stage for the Second World War. But out of that Second World War came a consensus about the need to learn the lessons. An extraordinary group of people learned the lessons, and set about after the Second World War to put the world back together again -or at least begin to put it back together again. – lowering trade barriers, opening up world trade.

Japan's experience in those years demonstrated the power and the rightness of the direction. Japan went for income doubling to begin with. It found its space in the world economy; it defined what it meant to be an economic miracle. It used technology and its discipline and focus to come to its leadership role in the world economy. So, that was a success at putting things together again. But at the same time, one consequence of the Great Depression was a lasting suspicion of markets. The focus was on market failures. In much of the developing world there was extraordinary prestige of Marxism and Socialism. And people talked about the 'commanding heights.'

I should explain the term. It is not a term particularly well known in the United States, but it was what the British Labour Party defined as its objective -- to control the 'commanding heights.' The Congress Party in India set out to control the 'commanding heights.' The PRI in Mexico set out to control the 'commanding heights.' The term actually came from Lenin, V.I. Lenin, in the early years of the Bolshevik Revolution. After the failure of War Communism, where they sought among other things to abolish money, the economy was in such bad shape that Lenin allowed peasants and farmers and small private enterprises to come back. His colleagues attacked him for selling out the principles of the Bolshevik Revolution. He said it did not matter because they would continue to control the 'commanding heights,' the strategic sectors of the economy.

In one form or another that was the sense -- controlling the strategic sectors, that you needed strong government guidance even in mixed economies of the West. And it seemed to be the inexorable direction even in the United States. After all it's remarkable to think that Richard Nixon put wage and price controls on the U.S. economy when inflation was all of five percent. And many problems resulted from that. In fact we have a wonderful interview in the television program with Vice President Cheney, who worked in the White House at that time, kind of recollecting it. He quotes Nixon saying to Cheney and other young people in the White House that Khrushchev, the Soviet leader, had said to him that sometimes to be a statesman you have to be a politician and in this case it meant wage and price controls.

But the reconsideration did begin in the 1970s. It picked up steam in the 1980s around the world. And it points to one of the central questions about the 'commanding heights.' Why have we moved from the era in which governments sought to seize and control the 'commanding heights,' the strategic sectors of the economy, to this era in which ideas of free markets, of competition, of deregulation, of privatization, seem to have captured the 'commanding heights' of the world economic thinking? And now, in the light of events of the last six months, is the further question: is this really a pendulum that swings back and forth, depending upon events and when things go into too much excess one way or another?

We can point to the reasons that this change came about. One was stagflation, inflation, and poor economic performance in the industrialized countries. One of my favorite stories in the show is how we got airline deregulation in the United States. It was not a politician on the right; it was Senator Edward Ted Kennedy, a liberal from Massachusetts. We have Supreme Court Justice Stephen Breyer talking in the film, telling the story of how, when he was a young Congressional aide, he worked with Senator Kennedy to promote airline deregulation. And he tells it wonderfully! It's a very important historical moment. Deregulation gathered momentum in response to the rigidities that promoted inflation.

Certainly another reason for this global change of mind was the fall of the Red Star, the discrediting of Marxism. The Latin American Debt Crisis of the 80s meant bankruptcy of a certain kind of intense state control. Overall state owned companies ran into many problems. They had been engines of reconstruction and modernization, but they also would tend to become inflexible and run up large losses for the national treasury.

The Asian Economic Miracles had a big impact. After the Asian Financial Crisis, one sort of loses sight of that. But it was the best argument for being more market orientated, at least compared to the traditional developing world formula, the best argument for being tied into the world economy. In 1965, Joan Robinson, a famous economist and one of the leading disciples of John Maynard Keynes, announced that Korea was going to have an economic miracle. But she meant North Korea; and she said South Korea was going to be poor forever. Well, things did not work out quite that way. The success, following on Japan's example, of the other Asian countries really

had a profound impact, including on India. The performance of the U.S. economy in the 1980s and the 1990s had a big impact. What was happening with technology, not just the Internet, but the falling cost of communications, was important. Of course that would not have happened without deregulation, privatization and competition because you would have had more rigid, impenetrable systems. But the falling cost of communications has had an enormous impact. This all gave rise to privatization, deregulation, competition, and cross border investment. The process of deregulation in Japan, and the transformation of what had been MITI into METI, show the change in thinking over a ten-year period.

Around the world there was this notion that you could protect consumers better through lower prices and competition. We went from an era of national champions to international brands. I listened to the discussion of the changes in the Japanese automobile industry with interest as this sort of blending of nationalities continues. In the energy business, we could not have easily imagined even a few years ago that we would have international electric power companies but we have that today. And all around the world the borders that went up against investment in the 1970s, or the 1950s, or indeed 1917 came down. But also, these transitions to markets were not easy and in many cases were more difficult, more protracted, and more painful than might have been expected.

Russia is a dramatic case. We were going to call the second part of *The Commanding Heights* "Shock Therapy." Instead, we concluded that the right title was "The Agony of Reform." Perhaps no one should have been so surprised at how difficult the transition from communism was. Maybe we should be surprised that it was not even more difficult. In the program, we have the extraordinary quote from Yegor Gaidar, who had been the Russian Finance Minister. He said that, when they took over after the collapse of the Soviet Union and the fall of communism, in the early 1990s, "It was like walking into the cockpit of a jet and finding that no one was at the controls." There was no system. You had to almost start over to make the system work." He added that no one was in control of the nuclear weapons at the time and that it was perhaps a more dangerous time than had been recognized. Latin America had to cope with the scourge of hyperinflation -- prices going up every twenty minutes, every 40 minutes. And India, with its own, as one Indian economist called it "Hindu Rate of Economic Growth," was not growing enough to reduce poverty.

Well, the outcomes are surprising in a way. In the 1990s as we all know, Russia was the bad boy of the world economy. Everything seemed to be going wrong. Yet ironically in the last couple of years, it has been, relatively, one of the best performing economies in the world. One asks the question, how much of that is a result of economic reform, institutional reform, or how much of it is because of high oil prices. We will find out. But in the last year and a half it has finally put in place many of the reforms. Of course it should have been done much earlier, to provide the rules for a market economy and a more stable platform.

India is beset by the latest sectarian violence and by the heightened risk of conflict on the Subcontinent. This can obscure what has actually been happening there. But before 1990-1991 it was a very inward-looking economy. It was amazing for the size of India how little connected it was with the world economy. Since then, we have seen India's engagement with the world economy through the 1990s – and, notably, the development of its high tech sector and India's role in the development of the Internet. For Latin America, the starting point in a sense is Chile. The economic reforms began under a very brutal dictatorship. But what is most striking is that these economic reforms were adopted and deepened by democratic politicians after the return of democracy in 1988. The result was summed up by President Lagos of Chile. He had been Salvador Allende's choice to be ambassador to the Soviet Union; and he was imprisoned by Pinochet. He was the man who told Pinochet on television that it was time to go. What he told us for our television show was that these reforms gave Chile a head start on globalization and being ready for it. As he said, the old discussions of right and left in this global economy become less relevant. Chile today is for many other countries a role model of how to do it. Of course the contrast with Argentina is stark. If I said Russia was the bad boy of the world economy in the 1990s, probably Argentina was the poster child for reform. One might well conclude Argentina's extraordinarily difficult problems, far from stabilized, were not the result of reform but the result of a failure to reform. Of course we see even in this country the questioning of markets in a way we would have not seen a year or a year and a half ago. That term that Alan Greenspan used in 1996 "Irrational Exuberance" has become the characterization in some ways of the second half of the 90's in the United States.

This movement to markets is shifting the balance of ideas, and, combined with technology, has set the stage for globalization. And so now we come to this complex, abstract five syllable word, globalization. It is lauded or attacked as a thing. It is hard to see it as a thing. What it is is a process – an interweaving of national economies through growing flows of trade, investment and capital across historical borders. More broadly it is flows of technology, skills, cultures, ideas, news, information, entertainment, and of course people. A third aspect is the increase in coordination of trade, fiscal and monetary policies among countries.

This second age of globalization began with the fall of the Berlin Wall and the collapse of communism. The result was that for the first time since 1914, beginning in the 1990's, we came to have truly a global economy. The measures of change are quite dramatic. In the 1990s, world trade actually doubled to almost eight trillion dollars, the equivalent to 30% of total world output. In 2000, foreign direct investment was six times greater than it had been a decade earlier. But you can also match it up in terms of travel, or in international phone calls. The cost of a three-minute phone call has plummeted. And the number of cross border phone calls from the United States to other countries grew from 200 million in 1980 to 5.2 billion in 1999. That's a world that is a lot more connected.

Another aspect is the growth of democracy. The Second Summit of the Americas was the one in Quebec where there were a lot of demonstrations. The first one was in

Miami. It was quite dramatic to see 34 more or less democratically elected presidents on the same platform, so many from a continent where dictatorship had been the order of the day.

And yet with all this happening, globalization has created a great deal of opposition. Many very different groups or agendas are grouped together under anti-globalization without a broad view.

What I would like to do is offer some observations that may not fit conventional wisdom and discussion about it. First of all globalization is blamed for many things, for instance environmental problems. This is what the economist Jagdish Bhagwati has called “the fallacy of misassigned blame.” Look at the environmental legacy left behind by communism – some of the worst environmental disasters that will take decades to remediate. They are the remnants of communism. But there is a transition for countries to develop the institutions to deal with environmental issues from a kind of free for all, to regulatory regimes to manage the environment.

Similarly globalization is often blamed for poverty. But our conclusion in *The Commanding Heights* is different. As we put it, globalization does not cause world poverty, but it makes all of us more aware of it. In fact, it has been quite an engine for reducing poverty. The best arguments are to be found in Asia, in terms of economic growth, in terms of creating middle classes. Singapore, 35 years ago, was a dirt-poor country; its existence was in question. Last year, it was cited as the most globalized country. And it has today a higher per capita income than Britain.

In a way, Deng Xiao-Ping in China set out choices, not only with his famous quote about it didn’t matter whether the cat was black or white as long as it caught mice; but also with his other one, in which he said “I have two choices -- to distribute wealth or to distribute poverty.” Creating wealth meant opening up to the world. And a China that is reformed and engaged with the world economy is a China that as a result of that has seen 300 million people lifted out of poverty. So you need economic growth and technological change for higher standards of living; you need to create middle classes, which also provide a more solid foundation for democracy.

The evidence in our story dramatizes the power of trade as a key driving force for raising standards of living. It is one of the few things that economists across the spectrum will agree with; and yet much of the public does not see it. But one of the most powerful engines, far more important than foreign aid or anything else, is trade and the ability to be part of the global economy.

There is a dichotomy between what critics say and what developing countries seem to want. I was very struck last year listening to the finance minister of South Africa, a veteran of the African National Congress, saying, “We were elected by millions of poor people to raise their standards of living. Who are the people that tell us we cannot have trade, that we can’t have investment?” In the film, we contrast the “battle of Seattle” on the streets of Seattle with the battle inside the conference hall on the part of the

developing countries to gain access to the markets of developed countries. This makes the outcome of the Doha WTO meeting so significant, as it sets a development agenda for trade talks.

The old division between “developed” and “developing” nations needs to be broken down. The most dynamic element of the world economy is actually the new globalizers, the developing countries with three billion people who are engaging with the world economy. So it is really a tripartite picture rather than just a duality.

In this world, it is up to governments to create and support the institutions, laws, contract, transparency, the rules that foster legitimacy and harness markets, and address educational needs, health and social service needs. On an international basis, this is the time to develop the new rules of the game that will make this new world economy work better. And there is a much greater awareness of the need to ensure that globalization is inclusive, which means addressing poverty. There are some other big questions out there. One of course is September 11th and its aftermath. This pushes security to the fore. It makes me think of that comment from Hayek in Episode I, in which, as I noted before, he observes, looking back on the era before World War I, that “we didn’t realize how fragile was our civilization.” Neither goods nor people will move as smoothly as they did before September 11. As last year’s speaker Robert Hormats of Goldman Sachs recently put it, “the culture of openness” has given way to “a culture of vigilance.” War and conflict can mean a more fractured world, one in which markets would not work as well. Security has come to the fore in many different dimensions including in terms of energy. Part of this new strategic relationship between the United States and Russia is predicated upon energy security. Overall, there is a concern about the security of infrastructure and energy as in many other parts of the economy.

Of course, there are the questions about the Japanese economy and its impact on the world. Our hosts represent the most modern export oriented part of the Japanese economy. As they know, I think, in the rest of the world people continue to be puzzled by the continued downturn and slump of the Japanese economy, and the difficulties of turning around. We asked in the documentary “Mr. Yen,” Mr. Sakikabara, the former Vice Minister of Finance, for an explanation for it. I don’t know that you will all agree with it but his explanation was that there are really two Japanese economies. There is that part of the Japanese economy that is represented by JAMA, the modern technological, export-oriented sector, hardened by worldwide competition. And there is the protected, what he called almost the socialistic segment of the Japanese economy, which for socio-cultural reasons is so difficult to change. Obviously Japan, like so many other nations, sees major trade offs in culture and society. But there is a continuing sense that what happens in Japan could have a very big impact on the entire economy.

The third question that I have is a question about capitalism itself. Who calls the shots in a modern economy? In part, the answer is the \$11.5 trillion of retirement savings, with its quest for quarterly performance. But a quarter is a very short time. I don’t know what the alternative is but it does put a lot of pressure on our kind of capitalism.

You can see the different perspectives in the series in terms of the story about Calpers, the huge California pension fund, and the visit to it by the French television team. They wanted to find out why Calpers was investing so much money in the Paris stock exchange. But, as you will see, they were instead fascinated to see one of the senior Calpers staff eating lunch at her desk!

Why don't people like markets? Ask George Shultz, a very wise man, former Secretary of State, Secretary of Treasury, why is it that people don't like markets? And a lot of people would say because they are unjust, they are unfair. He said no, it is because they are relentless. They don't stop. And that is kind of the nature of our system today. This kind of constant relentlessness has its strong benefits, its vibrant economy; but it is a constant pressure.

Events won't stand still. So this era of globalization has been and will continue to be tested by events and developments and by ideas, by what we think. And as we see it, we can identify perhaps five tests that will affect our ideas about how this system, this market-oriented world, works or doesn't work.

Test number one: Does a more market-oriented world deliver the goods in terms of increased standards of living and economic growth?

The second is, what about fairness, justice, opportunity, equity — things you cannot measure? Different societies, different people will evaluate them differently, but that will be a question about markets.

Third will be a question about the environment.

Fourth, something that was evident before September 11th, but was brought home even more clearly since then, are questions about identity. What happens to national, ethnic, religious, cultural identity in a globalized world? It is going to be a big question.

And, fifth, I think there is a kind of test of demographics. It is the young, the growing population in the developing world. But, in the industrial world, we know in our country and in Japan, the question is about the aging of the populations. What that means in changed politics and economics, in terms of demands on governments and the demands on markets.

And maybe there is one other question, which in a sense has been brought to the fore in the last couple of months in this country; it's the rules of the game. Market systems will be judged by the quality of their rules. Are they fair? Are they legitimate? Are they transparent? Do they work well?

Unlike other kinds of systems, so much in market systems comes down to confidence, the character of the confidence that underpins a decentralized, market-oriented system and that is necessary for it to work. Confidence in this more market oriented, this globalized world, is more likely to endure if it is anchored, meaning that it is tempered by

a realistic appraisal of risk and uncertainty, and by the benefits and limits of the market and its values. Will there be an increasingly integrated well functioning global economy providing benefits to billions of people around the world and raising standards of living? Or will we see a kind of new fracturing of the world economy as new barriers go up? That is a more realistic thought now than a year ago. Where will the answers be found? They will be found in the cumulative judgments and experience that orient beliefs and shape what we might call the balance of confidence.

Thank you.

Harry Harding: Mr. Yergin has kindly agreed to take some questions. We have a few minutes for them. Let me abuse the privilege of the Chair and ask the first one, which links us back to his original work on energy.

We have been talking this evening about the interaction of politics and markets primarily at the national level, from regulation and state control to deregulation and possibly a movement back to some degree in the opposite direction. At the international level we can also see this interplay at work and especially in the area of energy. The way in which politics commanded energy was through imperialism. If you needed energy resources, you took them. Now there seems to be much more reliance on market mechanisms to assure supplies of energy. My question is, some are asking whether the growth in parts of the third world, and especially in China and India, is going to place such strains on international energy markets that basically governments will no longer have the trust in the international market place, that has sustained us for the last several decades, and we will see a reassertion of politics and even military instruments to secure access. Is that something that concerns you?

Daniel Yergin: It is. The dynamic growth that we are going to see in the energy markets of course is going to be in the developing world. And for countries, energy is a foundation of economic growth and has a high degree of urgency to it. But we have a test case that has unfolded in exactly one of the countries you mentioned, China. If you went back three or four years ago you would read articles about the coming war for energy in Southeast Asia or in the South China Sea. But China chose a different course. It instead corporatized and partly privatized its energy companies. It would say that these should function more as businesses, developing pipeline projects and so forth. And I think that the choice so far has been to seek to meet its energy demands not through geopolitics but through markets, which is a more efficient and effective way.

It can change and those concerns are always there. But there has been a general direction towards markets. Of course whenever markets are tight, immediately people are looking at conflict. The answer to the security question really was set out for Winston Churchill in 1911 when he converted the British Navy from coal to oil, which meant -- instead of depending upon Welsh coal -- that the Royal Navy would depend on Persian oil, Iranian oil. He said that for security and safety, the answer is in diversity. Diversity of sources is beneficial both to both producers and consumers.

Jim Walters: Looking at China and thinking about one theory that entrepreneurial and capitalistic impulses will move China toward democratic impulses. Isn't another model possible that will move them toward the most modern fascist regime of the 21st century? That the totalitarians, the old guys, even the new guys, will simply figure out how to stay in power and harness the economics and feed the needs of people who have no democratic instincts but who are pleased to be better off?

Daniel Yergin: I think Professor Harding should answer this question. Would you like to say a word? If not, I will try. You create middle classes and you create a demand for participation. In a sense you kind of had a laboratory of what do you do after communism. The Russians said you change the politics and then you change the economics and the Chinese have done differently. We are looking at generational change now in the leadership. It doesn't mean in that country or others that things are irreversible; events can go in different directions. It would be a mistake to think otherwise. But what has happened in China over the last twenty years is quite remarkable, truly remarkable – especially when you think of the starting point.

Unidentified questioner: You mentioned that the Russian economy is on the road to recovery, and it is largely unknown as to whether it is because of the price of oil over the past few years. Would you care to comment as to whether you see that as a sustained position over time or what the road ahead for them really is?

Daniel Yergin: It is estimated that oil represents about 10% of GDP. Could it be driving the whole economy? Clearly it is very good for government revenues, paying pensions and that sort of thing. Professor Harding mentioned the book Russia 2010, which I did with my colleague Thane Gustafson. We published it in 1993. In it we had this scenario called "Chudo: The Russian Economic Miracle." We had a very difficult economic crisis at the end of the 1990s, which was then followed in 1999 with a new young dynamic leader coming into power. We have not seen an economic miracle at this point, but certainly a turning of the corner, and we got the timing right on the crisis and the new leadership. Some of the drivers of sustained economic recovery would be the fact of a very highly educated population. If Russia can get the institutions in place, and deal with corruption and crime, there is a basis for a longer period of economic growth. The last couple of years have been much more encouraging than might have been anticipated at the time of the Russian economic collapse in 1998. The only thing that caused me a little worry was that I read that the Russian stock market had been the best performing stock market over the last year. And the last time that happened was in 1997 and was followed by a huge crash. That made me a little more uneasy.

Unidentified questioner: In your presentation you talked about the new rules of the game in globalization. But different individuals, different organizations, different institutions, different societies, different colleges have different interpretations of what those new rules are supposed to be. Even if they use the same term, they may not have the same meaning and interpretation, transparency, accountability, and all of that, not just on the question of efficiency, but on the question of equity, and also more importantly on the question of what a civilization is supposed to be in the higher spiritual

and cultural level. My question to you is, how are you going to deal with these differences in interpretation even if they use words that you use? The reason I ask the question is that because in your presentation I have the sensibility that your point is too much American corporate viewpoint.

Daniel Yergin: If we look, for instance, at the World Trade Organization, up until now trade and policymaking have really been dominated by relatively few Western countries. We are now going to be in the process where developing countries are going to have a much bigger impact on how those rules are written, which brings other points of view and urgencies to it. So I think that is why it is not going to be an easy process. I think modesty on the part of those involved is very important. It was only a few years ago that people in this country were saying that GAAP accounting was the greatest export of the United States. GAAP accounting has kind of lost its prestige over the last year, and other approaches are going to be involved. The process is also going to be complicated because it involves a world of nation states in a single global market place. You need rules for this as you need rules for time, but it is not going to be an easy process. There is, as in the case of the French television crew, going to be a lot of resentment of the United States because of its dominant position, given its place in the world economy. As time goes on, the EU will be a major counter balance. But I think China and India, in particular, are going to be increasingly important players in it, and China's participation in the WTO is going to be most significant.

Tsueno Watanabe of CSIS: Actually, you answered my question in your previous answer but let me ask, although the answer may be overlapping, how will the United States deal in the future with leadership? Unilateralism is probably a very popular word outside of the United States. Actually I'm from Japan, and the Japanese like the U.S. unilateralism. I think this is too strong of an expression, but it is easier for the old media to use such expression as U.S. unilateralism. So, probably you may have answered this in your previous question but I would like to ask again.

Daniel Yergin: We all know that the unilateralism, or at least what was seen as unilateralism up through September 11th, became multilateralism and suddenly the rediscovery of the value of allies and coalitions of one kind or another. It is going to be a continuing question for the United States in terms of interaction both with the other major industrialized countries and the developing countries. You stated the problem, and it is very evident. There is another aspect to this that we are going to be wrestling with. That is the question of legitimacy, and the role of representative governments vis-à-vis non-governmental organizations. Who speaks for whom? This will be a very complex and mushy question because there will be governments, representative governments in most cases, and then there will be NGOs and a host of other actors. That further complicates who makes the rules. Imagine if Sanford Fleming were alive today and were going to convene a conference on time and setting up time zones. Think how complicated that would be. There would be 142 nations and probably 2000 other groups that would be there at the meeting; it would go on for days and days and days and months. There would be sub-groups. As today, with the question of labor and environmental issues, there would be questions of what linkages to make. Would we

end up with time zones or not? It would be a lot more difficult to do it and it would all be under the glare of the media.

Fred Joutz from GWU: I had a question regarding what you have been talking about in terms of globalization and the development of markets. In particular I am thinking about the markets for energy and their relationship to the environment. Probably the biggest market that is a non-market right now has to do with greenhouse gasses. My question is, first of all, do you think there is going to be a market developing internationally for the trading of these gasses? And if so, what are the prerequisites in the possible events that you see that might actually lead to these markets actually getting off the ground?

Daniel Yergin: There will be markets, something beyond Kyoto. I think this is the direction things will move because command and control will really not work very well to do it. What we have seen, in terms of trading pollution, is that you get much faster results much more quickly. I think that is a very good example. Right now we talk about rules; one of them is climate change. We can see how difficult it is to make the rules that involve nation states for a common problem. It is not something that gets resolved in a year or a decade; it is a longer process. But I think that in that case moving toward markets is going to be the most effective way to do it.

Stephen Flanagan, National Defense University: You mentioned that the world has become more aware since September 11th of the dark side of globalization, the fact that terrorists and international crime and drug dealers and others are benefiting from these same phenomenon as well as the overall global economy. I wonder how much you think the adjustments in the rules on globalization have yet to be felt? That is to say that travel is to become a little more difficult, movement of capital is under much more scrutiny than it was before, many other elements of the free flow of goods and services and people are coming under new rules and restrictions. I wonder how you see that impact. A number of studies have suggested the one thing that could set back this phase of globalization was trade restrictions. But now I think we see some other kinds of restrictions emerging that also could at least slow down the pace at which we have seen globalization impact a number of different aspects of the global economy and global culture and politics. I wonder if you see that as one of the phenomena that hadn't been anticipated that is going to lead to a slow down in the pace of this process?

Daniel Yergin: Yes Steve, I think that is a very good point. There was the assumption of free security. Everything was just faster and faster, smoother and smoother. You could build your computer basically in five different countries, move the parts or disk drive from one country to another. Members of JAMA know this, no doubt, from the assumptions that had been made about managing your supply chain and your inventory. That has all slowed down. I think it is still in the process of figuring out, what do you do? How do you manage it? How do you make it smoother? One of the discoveries was that the Coast Guard, the INS, and Customs, FBI, and CIA did not have a way of communicating. People are going to try and make it work more efficiently. At the very least it is going to be sand in the gears and or slowed down because there will be more measures. But also we don't know what else is going to happen that will affect

it. There is regulation on money, but it really will be people and goods that will be subject to this kind of process at work. There will be additional costs – and transaction costs – for the system.

Sarah Banazack, Department of Energy: Fred you brought up global warming and I want to bring us back to that, because you took time in your presentation to address global warming in terms of responding to the reaction that people have against globalization, that people react negatively to globalization. You tried to point out why that negative reaction may not be necessary. The examples you used were the environment and you said the worst environmental problems of today have probably come from the former Soviet Union. Actually I wonder how you would place global warming in that context? And then you addressed poverty and you said that we have poverty reduction concurrent with globalization. If you measure poverty in terms of GDP per capita, certainly you see income rising in most of the world, you see global economic growth; but what about income polarization, increasingly wealthy people and increasingly poor populations?

Daniel Yergin: Those are very basic questions. People believe that income polarization is happening but I am not sure that is happening. If you look at a lot of countries that is not what you see. You see rising incomes in countries. The evidence is really very persuasive. How else are you going to address global poverty? If you want to see the change occur, it is going to be by countries engaging with the global economy in various fashions, exporting, trading, absorbing technology, improving their education and so forth. It is out of that that you are going to see a reduction in poverty. If you look at a country like India the benefits that have come with the process of reform were not there before.

Your question about global warming is a fair question. I was thinking in terms of environmental blight, as we know it. Generally, what the record shows is when you have cross border investment and new technology coming in, what you actually are doing with that is you are improving environmental conditions. There does seem to be a point with countries, as they first start to grow, where pollution gets worse. You can look at China and its experience because you start to get an industrial activity with old and dirty technologies. But then investment starts going into technology, and then you start to improve upon it. That seems to be the general pattern.

Let me point to a more general conclusion. I will tell you, after three years on this book and three years developing and making this film and reading and thinking about this and traveling, I really come away with the view that participating in more open economies with investment in education, health and social services, is what benefits the population of a country. That is a very clear conclusion after more than a half-decade in this process.

Gordon Fowler, Nuclear Regulatory Commission: You develop scenarios. That is one of your main methodologies, like 2010. So I would like you to give us a little idea as to where globalization is going. Is it fundamentally linear? For example, there is the little

story you told about the man who said that World War One will end up by having an effective pulling down the economy of the world, which it did for a couple of generations, on the one hand. But on the other hand you mention NGOs, which indicate the George Bush theory of One Thousand Points of Lights, where you have many decision makers and many sources of energy, ideas and so forth, which perhaps could create an underpinning for globalization. The fundamental question is how linear is the process?

Daniel Yergin: Is this the last question? That is the next book. I am a believer in surprise. Just when we are pretty sure we know how things are going to go, something comes along that really changes it. It goes in different directions. I think these forces I am describing are very powerful. But the experience of September 11th and other things show that they can also be derailed. We begin Episode Three of *Commanding Heights* at a time, just a decade ago, when the book Japan is Number One seemed to capture the future. Back then, just a decade or so ago, the U.S. had this incredible economic inferiority complex towards Japan. Times change; and I suspect that they will change again. In answer to your question these are powerful forces; if there is not a grave crisis they will continue to work in one form or another because they are very powerful, but it will not be linear. Just when everyone is convinced that things are moving in one direction that ensures that they will move in another direction. Margaret Thatcher reminded us when we were doing *Commanding Heights* not to forget what she called Thatcher's Law – "The unexpected happens. You had better prepare for it." As you watch almost a century of history unfold in *Commanding Heights*, the power of her point will become all so evident.

Thank you all very much indeed.

Harry Harding: I would like to thank Daniel Yergin for some very provocative remarks this evening. The most memorable phrase he left me with was when he categorized the opponents of globalization into the "left out" and the "worn out." One might also add a third category, the "grossed out": those who are offended by the spread of some of the cultural oddities that Dan mentioned, such as eating lunch at one's desk in one's office.

But on a more serious note, I want to underscore the importance of an issue that ran through the latter part of Dan's remarks. As some of you in the audience know, I was in Japan last week. I attended some very interesting meetings about how the United States and Japan could work together in a constructive way to deal with the rise of China. I found that there was consensus on many points. But there was also some apprehension on one issue that I had not anticipated, but that Dan and some of the questioners have raised this evening.

That is, there was consensus on both the desirability and the feasibility of trying to build a cooperative relationship with China. There was also consensus on the idea that integrating China into a set of global and regional institutions would be one way to promote a cooperative relationship of China. But there was considerable degree of doubt as to whether the United States and Japan could agree on the rules and norms that governed those institutions.

For example, a well-known conservative critic, Nishibe Susumu, asked about the values that lie behind the process of globalization, and said that he was not sure he could endorse international institutions that were organized around such values. Similarly, Masaya Miyoshi, the former president of Keidanren, asked whether the U.S. and Japan would be able to agree on the structure of the institutions of the Asia-Pacific economic community. This alerted me to the fact that the creation of the rules of the game, which Dan has just talked about, could create divisions not only between groups with extreme opinions on the merits of globalization, but could even divide such close allies as the United States and Japan. So Dan has given us a further agenda that we need to address in future sessions such as this.

But that is all the time we have for this evening. I would like to thank JAMA once again for its sponsorship of this lecture series, and to thank our colleagues from JAMA for attending tonight. I would like to thank the audience for joining us and for asking some very insightful questions. And I would especially like to thank our speaker, Dan Yergin, for his remarks, and for giving us a preview of what will be a fascinating series on PBS. If you can't watch it when it's aired, get your kids to program the VCR for you!