THE BROOKINGS INSTITUTION

U.S.-RUSSIAN LEADERSHIP FOR GLOBAL FINANCIAL AND ENERGY SECURITY

Washington, D.C.

Monday, March 23, 2009

PARTICIPANTS:

STROBE TALBOTT
President, The Brookings Institution

JONATHAN EATON
Professor of Economics, New York University

CLIFFORD GADDY
Senior Fellow, The Brookings Institution

BARRY ICKES
Professor of Economics, Pennsylvania State University

ANDREY VAVILOV
Chairman, Institute for Financial Studies, Russia

VALENTIN ZAVADNIKOV
Chair, Committee for Industrial Policy of
the Russian Federation Council

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P R O C E E D I N G S

MR. TALBOTT: Good afternoon, everybody. I'm Strobe Talbott and would like to welcome all of you to an important event. And I am going to defer to my colleagues, Barry Ickes and Andrey Vavilov, to lay out the specifics in just a moment about a venture which is really being launched here this afternoon. And it goes to the very heart, I think, of what is one of the more important challenges facing both the United States and the Russian Federation in the years to come, which is taking some new slogans, and indeed some old slogans, and translating them into practical and constructive action. And that means not just at the government-to-government level, although that is going to be very important indeed, but also taking advantage of public policy research institutions, the academy, NGOs, and hard-working, conscientious, and I will add quite brave individuals, like Andrey Vavilov, who have been working often under quite adverse circumstances for a long time.

Once upon a time, a Russian word, "perestroika," got introduced into the English language. And all of a sudden, Americans all knew more or less what perestroika means.

More recently, another word also starting with "pere," "perezagruska," got introduced with a little blip along the way in translation into the English language. And that word, of course, means "reset," we think. A lot of us have gone to our dictionaries and asked our Russian friends. I went to a Russian friend and I said, you know, I've never fooled around with computers, including in Moscow. What is the word for "reset?" And my Russian friend said it's reset.

But in any event, no less an authority than President Medvedev used the word "perezagruska" the other day, so I assume it's legit. But what does it mean? And one thing that it has to mean is that the hard intellectual work of identify those areas where these two uniquely important countries with their uniquely complicated past can genuinely work together. And I cannot think of two areas -- well, I can think of three areas where it is critical that they do so, two of which are on the agenda for today's discussion.

The two that are on the agenda today and that are going to be at the heart of the partnership that Andrey and Barry are going to be describing in a moment are how the Russian Federation and the United States can work together, both bilaterally and also in a multilateral context, to address the global recession, which we all have to pray is no worse than a recession and which is much more than an economic issue, but also is an issue of national security for both countries and indeed of international security. And of course, the other set of issues which is related is that of energy security, a cluster of issues in which Russia has a particularly important role to play.

The third area, of course, is our traditional security agenda, nonproliferation and arms control. But -- and I'll wait and see whether the discussion gets into this, that, too, is linked to these other two issues, particularly energy security. And the extent to which Russia and the United States can work together not just on peaceful nuclear energy in its own right, but also as a mitigation or remedial means of dealing with climate change sort of binds that together.

So I suspect a couple of you in the room were in the India conversation that's going on in the other room. We talked about connecting the dots. There are a lot of dots to be connected in this conversation as well.

And Andrey, let me just say to you and your colleagues from the Federation Council and your team from your think tank in Moscow, which

I have admired both up close and from a distance for 15 or 16 years, you're particularly welcome here. And we at Brookings are very, very proud, along with John Eaton from NYU, to be part of this project.

And so with that, I will turn it over to Barry Ickes. Thanks all very much.

MR. ICKES: Thank you very much, Strobe. Thanks to everyone for coming. I want to give a few remarks about the overall idea of this project and then I'll come back a little later to talk about something more specific.

So, on the one hand, what we're talking about when we said "after the reset," we're talking about ways for U.S.-Russia cooperation to take form, but not necessarily in the usual issues that get all the discussion, but on issues that may be of actual mutual interest. Now, the way this project came about is on a more micro level. It came about because of the mutual research interests that we developed between the Institute of Financial Studies that Andrey Vavilov created and researchers at Penn State and at Brookings. And we formed this center, CRIFES -- I like that name -- Center for Research on International Financial and Energy Security, to study these issues, in particular to study ways in which cooperation on the energy front can lead to mutual security and how reform of the international financial architecture can take place to make the international financial institutions that we have more suited to the evolving distribution of economic power in the world. So we're going to try to talk about both of those entities.

In some sense, today you could think of as somewhat of a launch, where CRIFES is a new project, a new center, and we're talking today about where we're headed. And we're going to talk about the problems that CRIFES is focused on and ways in which this cooperation could take place. And so, in some sense, this is an interaction of a research agenda and the policy agenda. I think, in some sense, where the intersection of the research agenda and the policy agenda arise, that's what Brookings is best known for, so this is a very good venue for that.

So, to let you know what's going to go on, the next speaker is going to be Andrey Vavilov. He's going to talk about energy security. And then I'll turn it over to Cliff, my colleague Cliff Gaddy, and then we'll continue talking about that.

So, let me introduce Andrey Vavilov. Most you already know Andrey Vavilov was a long-time deputy minister of finance in the Russian Federation. He's also been the proprietor of an oil company. He's a researcher. I've known Andrey since he was a researcher at the Center for Economics and Mathematics -- at the Institute of Mathematics and Economics of the Soviet Academy of Sciences in Moscow, the same place where our New Economic School is housed. And Andrey's been a long-time supporter of the New Economic School in Moscow. And Andrey is the founder of the Institute of Financial Studies, and many colleagues of Andrey's are here. And the Institute and Penn State have worked together on a variety of projects. We run a lot of projects together studying auctions. We've studied Russian oil and gas auctions and now we're really interested in this CRIFES project.

So, let me now turn the floor over to Andrey.

MR. VAVILOV: Thank you. Thank you very much, Barry. Thank you very much, Strobe, for invitation. And I would like to make my presentation in Russian, especially a lot of people understand here Russians. And I would like to speak in Russian.

Yes, please, you can take these devices for synchronized simultaneous translation.

So what is the purpose of the research project on energy security? Maybe just a few years ago, when we started discussing this topic with Barry and Cliff, and as we've discovered, it appeared that most of the topics were focused between the current state of a political relationship between energy producers and energy consumers. However, if we try to approach this problem rationally, then the question is what should be the most rational choice for each of the groups of those countries? And we were unable to find an answer for this very simple question and we decided that this topic should be addressed from the standpoint of business efficiency, regardless of the political component.

And we've decided to focus primarily on the risks associated with energy security, and we've determined that the primary risk is represented by uncertainty, too many uncertain variables. Because, number one, nobody really knows real values of energy reserves are available to mankind on this planet because we are -- relied for too long on the methodology and the estimates of the International Energy Agency. But people who are familiar with the methodology of these estimates know that the variations could be like twofold, even threefold. And this uncertainty sometimes prevents people from making considerable investments into exploration of the new fields and areas. And also, that is becoming a big uncertainty in terms of pricing of the product.

Next uncertainty factor is the high volatility of oil price. Nobody really knows what is the fair price of oil. Remember, about a year ago, people were talking that prices over $100 a barrel are here for good. Right now, only 3 months later, we believe that the prices will never reach $100 ever again.

Next uncertainty is formed or caused by the investments factors because further production is becoming more capital-intensive. So, therefore, the question is when do we start making those massive investments? Do we do it now? Do we postpone it by five years? Three years? Seven years? And this is also a very considerable factor which needs to be addressed in the framework of this analysis.

And the last factor which contributes also to the risks analysis is the efficiency of those capital investments. Let me give you a very simple example.

Let's say you have the latest Daimler-Benz product and you can drive it really fast and really far. But if you don't have even a single can of gas, what you're looking at is a piece of junk which is not used and nobody needs it. The same thing with the energy production because no producer without proper capital supply and capital reserves can produce any energy.

I think everybody is familiar with the Hubbert theory, a well-known geologist, who forecasted the world peaks in production. We see that initially the peak was forecasted for 2005. Later it was shifted to 2015. Now the forecast is 2020 will peak out our production. Nobody knows how this forecast will look from five years from now.

I believe we all remember the fight among oil giants for the exploration rights in the Caspian Sea. A few years later, it turned out that the actual reserves in these regions are far below the expectations of those companies and those companies had to right off significant values. But uncertainty in reserves also deals with the fact that these deposits are located in the countries with nontransparent or unstable political regimes, and these regimes don't provide you with the full information on the reserves which exist in these countries.

The next factor is the oil price. Here I'm showing you the price, the oil prices, in the prices of last year. As you can see, the high prices for oil, they are not there for a very long time. Most of the times, the price of oil is on the level of trend. For example, if we would try to calculate it right now, even considering the peak which took place last year, on average the price should be about $50 per barrel. And there are no reasons to think that the price should be 70, 80, 100, or $200.

This is the same information, but in different nominal prices and you can see the trend. It's on the graph in black and you can see it.

Now the investment risks. Today, right now, they are so serious that they cannot be resolved in the framework of one company or even one country. For example, speaking about Russia, the development of the new deposits on Arctic shelves or in Eastern Siberia, they require investments, and these investments are in hundreds of billions of dollars. Let's imagine the Russian companies or foreign companies will spend 100-, 200-, or $300 billion for the development of these deposits. And after the money are going to be invested, the price -- let's assume the price would go down 50, 40, or $30 per barrel. Who is going to be a winner and who is going to be a loser? And this is a question which is probably impossible to resolve right now in the framework of the one oil company or even one oil-producing country.

The efficiency of the capital investments, I already mentioned it before. Unstable -- the capital -- the efficiency of capital is very low if you are -- if we don't have the proper supply of the oil. As we can see that the level of consumption in the number of countries which produce most of the capital, the energy consumption is already rather low. There are no alleged reserves in order to decrease this oil consumption even more. Of course, such countries as China, they probably have some reserves in order to decrease the energy consumption, but altogether, without the energy as we think, the efficiency of the capital investments is going to go down, to be on the decrease. And in this case, it would lead to the lowering of the number of investments and the economic development and move in the direction of the consumer, consuming of the energy, and all the negative results of such a path or such a way we can see right now.

And this is the illustration of what I was just talking about, that there is -- and here you can see the results of the crisis, the crisis like the one we have to deal with right now.

Now, our center has an idea to look at all of these problems using the approach of the theory of games with several participants, and the participants would be the consumers, the producers, and to find out what type of behavior is more efficient for both participants, participants of both types. And, of course, we are looking forward for a long time. We are not trying to find out what's going to happen in one year or two years. We are not looking at this as -- from the point of view of the firefighters who are -- put a lot of water in order to get rid of the fire when the house is on fire. But then the house has to be built again in order for people to be able to live there. So the behavior has to be different. The behavior has to be different from what we consider to be evident if you look only at the current situation.

In the energy countries, such as Russia and Arab countries, there is a point of view that if you have energy resources and if you control their distribution, if you control the level of sales on the world market, you can get more preferences, more pluses, compared to the countries which don't have energy resources. And I am sure that it's not right and there are a lot of different factors which deal with the efficiency of capitals of the volatility of prices, the volatility of resources, which prove that the actions of one country or one company in the framework of the theory of games would lead to the decision which is going to be an optimal decision, not only for other countries, but including the country which has these energy resources.

On the other hand, the countries' consumers of energy resources right now, also, go ahead with their actions which don't -- which are not good for the cooperation between them and the countries who produce energy. You can -- in the countries which consume energy we can talk about the new behavior, the financial protectionism. We all remember maybe a half a year ago or a year ago how here we, for a very long time, discussed whether we can allow the state funds to buy the shares of a company which is located in Europe or in the United States. And we found out that the German legislators are trying to come up with the actions which wouldn't allow this kind of action.

But this is absolutely clear: If there is capital, it has to be invested somewhere. It has to be diversified. It cannot be put only in the obligations of the countries. And the action of the countries which do not allow to diversify, other countries, their portfolio leads to an inefficient solution for all countries, for all of them altogether. And unfortunately, or maybe fortunately, the most prosperous way of action doesn't deal with the actions of one country only. It can be efficient only in the framework of the global cooperation. And I think that the purpose of the activity of our center is to discuss and to look into all the possible types of behavior which would lead to the more efficient development of the economies of all countries.

And let's assume the United States or Western Europe, if they needed a stable provider of energy resources, it's not enough just to pay money for the resources. Probably they have to get something else, for example, a new technology. (inaudible) new technologies the participation in the common projects. I think we have to look at all the participants. We don't look at the country producer, not as a country with one function. They have many different functions, I mean Russia and other producers of energy. Maybe in some country there is some knowledge and the other country doesn't have this knowledge of how and what to do. But if the country produces energy and it assures the guarantee for the supply of energy, which provides the capital in all the other countries to work in an efficient way, so in order to get the market price for oil, this country has to get something else in addition, like the equal participation of the process of the economic growth.

And I would like to finish my presentation now and I would like to mention that this is just the beginning of the activity of our center. We are going to look into these particular questions, which I listed before. And I hope that when we are going to have specific results, we would be able to meet again here in this building.

And thank you, Mr. Talbott, for this invitation. And I hope that we will be able in a regular way to meet and talk about the development of our center. Thank you very much.

MR. GADDY: Thank you, Andrey. My name is Clifford Gaddy. I'm here at Brookings and it's my great pleasure to take over and moderate the rest of the panel. We'll have a couple more brief presentations before we open up for question and answer.

And the next speaker is a fellow member of the Federation Council. The Federation Council in Russia, of course, is the upper house of the Russian Parliament, roughly the equivalent of our Senate in that regard. And our guest, who we are very happy to see, has been able to take time out of a busy schedule dealing with the policy issues, not least the critical choices that have to be made in this time of economic crisis in Russia as well as here, is Valentin Zavadnikov.

Mr. Zavadnikov represents the region of Saratov on the Volga, for those of you who know a little bit about Russian geography; pretty much in one of the places in the center of Russia. He was trained originally as a maritime engineer, but has devoted much of his professional career to issues connected to the things we're talking about right now, energy. He was the deputy chairman of the board of UES, the Russian Unified Energy Systems, and was in that position as that company launched a number of pretty fundamental reforms, market-oriented reforms, of which he was one of the key figures.

He's been a member of the Federation Council, if I'm not mistaken, since 2001 and is currently the chairman of the very important Committee on Industrial Policy of the Federation Council. And we're delighted to have him here and to hear Mr. Zavadnikov make his contribution to this discussion about U.S.-Russian cooperation on financial and energy security.

Mr. Zavadnikov.

MR. ZAVADNIKOV: Good afternoon, dear colleagues, and thanks a lot for the presentation.

In the last 15 years, it happened this way. I'm working on the issues of market. I was -- I participated in the creation of three markets in the Russian Federation: currency market, security market, and energy market. In 15 years, like 5 years for every one of these markets. This is the 15 years of my life. I'm not going to speak to you as a chairman of the Committee on Industrial Policy. I will talk to you like an expert because I have some understanding of what is going on right now in Russia and in the world.

I probably -- and it sounds probably strange, but I'm not going to deliver you any news, no discoveries. I'm not going to discover anything new. I think what is extremely important when we discuss these fashionable new words, like "the crisis" and the relationship between Russia and the United States and this word "perezagruska," is -- that is to look at all of this with fresh eyes.

What does "perezagruska" mean? It means that you have some hardware and you are going to change software. And during this process, you should understand what you mean when you talk about software. And I believe that in this case the word "reset" or "perezagruska" is really an empty word because basically it did not introduce any new component into the bilateral relationship between the United States and the Russian Federation because we're not anticipating any fundamental changes in the United States or any radical changes in the Russian Federation to call for a new version of the software. Because we all understand that a crisis is a part of a natural process. It's one of the -- it's just a natural response of the economic system to irrational decision-making by some of the economic players. So, in other words, both our governments, both in the United States and in the Russian Federation, did quite a lot of things to lead to this economic crisis.

And at the same time, well, clearly, all of the governments involved, they were led primarily not by the search of the most efficient way of allocating resources and things of that nature. They were simply trying to secure their position within the political system of their countries. However, the combination of those actions in the individual nation states resulted in this economic global crisis. So this is a natural economic correction.

And it is very sad that both the U.S. Government and the Russian government, as well as all other national governments, they treat this correction not as a chance to rethink their policies and rethink what this crisis actually means. They treat it as another opportunity to secure their power grab. As a result, their actions are not diminishing the results of this crisis, not mitigating those results. In fact, they are contributing to this crisis.

So, basically, we're fighting two very simple things because, number one, we're trying to spend money to support that inefficient economy, which is our own creation. That's number one. And number two, we are trying to improve our regulation of that inefficient system. Not to mention that all of our problems are caused by our regulations, regulations which were based on ignoring real economic process in favor of the socioeconomic agenda of those governments. And, therefore, I don't believe that this crisis will pass soon. I believe that the forecasts of 3, 6, 9 months, maybe 12 months, I think these forecasts are too optimistic. As long as our governments don't get it, that we need to make systematic changes and not pretend that we are making changes to the system, that crisis will continue and that crisis will correct all of our previous actions. And that is why, in my opinion, I think that we are going to stick with this crisis for longer periods.

Second, clearly the governments are concerned about what's happening within their national boundaries, and there is a similarity between Russian and American approaches. However, let's compare where is Russia and where is the United States. And if you look carefully, then if we don't take into account strategic offensive arsenal, then Russia is probably on place number 15 in the best-case scenario. So that is where I want to support what Strobe said in the very beginning. We need to take the situation rationally.

Yes, Russia possesses substantial energy reserves. Yes, those reserves are quite substantial. And yes, they can have a major role in the energy -- world energy balance. And I think this is both a blessing and a curse. Because, number one, this 15th position which currently holds Russian -- occupied by the Russian Federation, that is something which let us build a positive relationship between the two countries because we can look at the situation realistically. And we know that in about eight months, our only treaty regulating our strategic nuclear forces is expiring, so we know that. And we can sit down and honestly talk and discuss the issue. We can sit down and lay forward Russian interests, lay forward and put down American interests, and see what we can do with this without involving any politicking into the equation.

I think it is very important for the success of this cooperation for both governments to understand one very simple thing: Crisis is a natural part of economic cycles. The same thing as a flu. You just simply have to get over it. So basically when you suffer and when you feel sick, number one, you have to help your citizens to survive through that flu and then preserve the financial system of the nation. And you can do it by only one thing: by removing structural disbalances which caused this crisis. And that means a call for less regulation, not more regulation.

And before engaging in this new regulation, the governments should commit themselves to protecting one and only thing: The governments should be committed to protecting international competition. If competitive forces are allowed to work as they're supposed to, chances for those crises or a crisis of this nature will be substantially fewer. And if the government stops interfering into those processes, the sooner we'll see the end of this crisis. And then we will see real reset or real perezagruska of the situation and that will be real.

Thank you.

MR. GADDY: That was some very sensible words that we all, I think, can take to heart.

Let me now turn, very briefly, my colleague Barry Ickes and I will talk a little bit about the actual content of the research that our new center is going to tackle. And then after that, John Eaton will make some concluding observations. John is looking at this, to some extent, from the outside and so it'll be the beginning of the open discussion with the audience.

So, briefly, let me invite Barry to come here to the podium. Barry has some slides. Would you like -- yes, I think you need to come here to microphone. And then we'll -- I'll say a few remarks after Barry.

MR. ICKES: Okay. So, let me talk a bit about reform of the international financial architecture, although I should -- let me step back a bit. You know, this whole idea about cooperation, you know, usually when we talk about reset of foreign policy -- I'm making a big, big thing for just a second; take my opportunity -- you know, the discussion is NATO cooperation or the discussion is, you know, proliferation or some issue where it's hard to get agreement. And the whole idea of CRIFES and this meeting is to try to think of ways where cooperation, you know, is natural, so there could be mutual interests.

And I think from a personal perspective, it was like, I don't know, 18 years ago, a bunch of us thought, you know, it'd be really good for Russia to develop a modern economics education. So we decided to set up something called the New Economic School in Moscow or in Russia called the Russian Economic School. Don't ask why there's two names. And we didn't have the U.S. Government supporting us. We didn't have the Russian

-- the Russian government allowed us to do it. We just sort of did this and we created this school and we scrambled and it was in mutual interest. And because it was in our mutual interest, there was a vacuum we could fill. And now, you know, 18 years later or whatever, we have this fully functioning school, which is probably by far the best economics institution in the post-Soviet, post-Berlin, post-Socialist world. And it's all filled with Russian professors who've gotten PhDs and who create new Russian economists all the time.

And the idea is if you find some avenue where cooperation is really going to be mutually beneficial, then you can make real progress. Okay. So I should have said that story in the beginning, but I'll say it now. So now let me talk a little bit about something completely different: reform of the international financial architecture.

So, in some sense, we've heard a little bit about energy security and Cliff's going to talk a little bit more about energy security. The other part is financial system.

Basically, the problem we have right now is that the current international financial architecture is really a legacy from the post-war period. All right. It's the Bretton Woods Institutions were designed to cope with problems that developed during the Great Depression, problems that caused a breakdown of the trade system, breakdown of the investment system, post-war reparations, and debt. So the international financial institutions that were developed were designed to prevent those problems from arising and to deal with post-war reconstruction. They were designed for a world where capital flows were restricted. You know, maybe it's hard to think about it now, but even with the development of the Bretton Woods system and the dramatic growth in global trade, capital flows were restricted in most of the rich countries till the '80s. You know, there were big capital market restrictions throughout the world.

Surpluses, when the system was designed, were concentrated in rich countries, but really concentrated in the U.S. Most of the way the IMF was designed was because the U.S. feared it would be the big surplus country and so many ideas for dealing with surpluses and deficits were influenced from that regard.

Today, we're in a completely different world. We're in a world where the surpluses and the deficits, the geographic pattern has changed, so I'll just give you a couple pictures.

Well, one, let's look at Russia for a second. Here you can see Russia's current account balance. You can see there's a dramatically large current account balance. Of course, that comes because Russia's a big oil supporter. But here's a -- well, you're a little bit far away, but what you can -- but the point of this picture is to show the regional pattern of surpluses and deficits. At the bottom is the U.S. The U.S. is in the pink, the biggest deficit country. And you have China up at the top, the biggest current account surplus country. And right below it are the major oil-producing countries. So there's been this big shift during the -- in this new century, where it's the rich countries that are the deficit countries. I mean, besides the UK, the other big deficit countries there are Spain, Italy, Australia, and the United Kingdom. And the big surplus countries are Japan, China, and the major oil countries.

Here's a table that gives it in a little bit -- I don't know. On the left I have the 10 largest surpluses and on the right the 10 largest deficits. And so, in the northwest you have China and in the southeast you have the United States with deficits, you know, the U.S. current account deficit of over $560 billion and China with a surplus of almost $370 billion and Russia almost $100 billion.

So you can see this dramatic shift in the sources of surplus and deficits, yet the international financial system is designed for a completely different pattern, where capital flows were thought to be going from rich countries to emerging market countries or poor countries. Now surpluses tend to be concentrated either in emerging market countries, which have gone on huge savings binges as a result of the Asian crisis of the late '90s, or oil-producing countries that are naturally surplus countries. And the international financial system has yet to cope with that new environment.

Now, the second element that's developed -- and this you really can't see -- is the dramatic growth of sovereign wealth funds. So what I've listed here is some of the largest sovereign wealth funds. So these are investment activities run by states. And these are one way in which surplus countries invest these resources, this recycling of these surpluses back into the world, especially back -- well, we're one of the beneficiaries.

And, you know, at the top is the United Arab Emirates. There's two columns because we don't have great data, so there's upper and lower estimates of how large these are. So, you know, the upper estimate for the UAE is $875 billion in the fund. Then you have Norway, Saudi Arabia, Kuwait, and Russia. Those are the top five. And then you also have -- the top list is all the oil producers and then there's a second list which are the Asian exporters. If you were actually close to the front you could actually see that, you know, the U.S. is in the oil and gas exporting countries because Alaska has its own permanent fund, which is actually, you know, fairly large, but only benefits, you know, one of the 50 states; unfortunately, not the rest of us.

Here's some of the noted sovereign wealth funds, just a list of them again.

Now, why are sovereign wealth funds important to think about? They're important to think about because one way in which the risks that oil-producing countries such as Russia can diversify -- can reduce these risks is through investment in the West. If the vehicles are sovereign wealth funds, we need to reform institutions so that these funds can invest. But, of course, there's great political resistance in some sense to the presence of sovereign wealth funds in a lot of the recipient countries of the investments. And so one of the elements of reform is going to be to develop a regulatory system that is capable of allowing these investment funds to operate because it's unlikely that the pattern of surpluses is going to change overnight. Deficit countries need the resources that the surplus countries have. And we need to develop mechanisms so that politically there's less resistance to the operation of these funds.

Here's just a picture of where the sovereign wealth funds come from. And you can see, if you look at the upper left, you can see that most of the sovereign wealth funds are in oil- and gas-related countries, so that's in the upper left. And then you can see -- by region you can see that the Middle East is the biggest source of sovereign wealth funds and Asia is quite large because of the importance of China. So this creates a whole set of issues of how to cope with this changed nature of economic power.

So, what we have to study and understand is how reform of the international financial architecture can take place. There was just an announcement today, for example, by a committee led by Nobel Prize winner Joe Stiglitz of one set of reforms, which was to eliminate the G-20 altogether and eliminate the role of the IMF and replace it with the UN Economic Council based on a new representation of countries based on the changed sources of economic power. But what we can't rush into thinking about this because reforms have to satisfy several goals.

One, they have to be flexible. It's interesting, when we started thinking about this project, Andrey and Cliff and I, you know, oil prices were way over $100 a barrel. And you could get no one to listen if you talked about the risk that oil prices might fall. Right? We are fixated on the idea that oil prices tomorrow will always be what oil prices are today. We've actually -- Cliff and I have done a lot of -- made a lot of charts showing how the futures market tends to believe that, too, all the time. But we need reforms that are flexible enough to change with shifts in these patterns.

The reforms have to be done so that investment by sovereign wealth funds can take place and can be accepted politically. There's so much resistance in Europe to these investments by the funds, yet Europe is going to be dependent on oil and gas for a long time, so the surpluses will be there.

There has to be some reform of the international financial institutions to deal with the new distribution of economic power. I guess to some extent that means voting rights. I mean, a country like China, which is the largest net saver in the world, is bound to get more representation and that means somebody else is going to get less and, of course, that's a difficult political thing to have. But this is an area where the U.S. and Russia are in agreement on changing the distribution of power in the IMF, reflecting the growing importance of the BRICK countries of which Russia's one of them, but we don't use that phrase as much since the crisis started.

And the last item that we probably should mention is that reform had better continue to enable international risk sharing, you know, in the wake of a new regulatory environment that the G-20 wants to talk about in the wake of this financial crisis. And it's never -- in some sense, it's never good to think about reforms right after a crisis because then you design the new system to deal with the old problem instead of the new problem. And that -- but figuring out how that will work is going to be one of the important goals of the project.

So I'll stop there because I don't want to take any more time, and I'll give it to Cliff.

MR. GADDY: Thank you, Barry. Now, let me be very brief, all too brief, in a description of the actual model, the work that we're intending to do. I can add that we've had a similar meeting to the one we're having now in Moscow. So, in other words, our project and our center has been presented in Moscow in a meeting, in a workshop, at the Federation Council back in December. This is completely in its beginning phases. We do have, however, an idea of where we want to go with the actual modeling, and we're doing it in three steps.

We're beginning with the way economists always begin: We're going to pretend that the real world doesn't exist and we're going to create a utopian optimum model that ignores most all of the difficulties that the real world confronts us with. Then we're going to actually go to the opposite extreme: We're going to do a model in which we treat everybody as being, in this case, completely resource nationalistic, completely egoistic. And that's going to give us, we hope, two ends of a continuum, like a thermometer with the lowest and the highest that can be achieved. And the third step will then be to think of politically feasible -- in other words, real-world feasible -- institutional mechanisms that'll allow us to move away from the worst-case scenarios of complete resource nationalism to cooperative solutions that become closer and closer to this optimum, though, of course, optimum that obviously will never be reached.

Now, what do I mean by a total optimum or utopian model, of a benchmark model if you like, what we call socially optimal energy development? Well, basically what we're going to say is that there are two kinds of energy producers in the world: there are high-cost energy producers and low-cost energy producers. Low-cost energy producers, that's shorthand for the Mideast, for the Gulf states. High-cost, that's pretty much everything else that we're looking at in terms of future oil. And the reality is that that -- that is these high-cost energy-producing areas are where most of the potential for expanded supplies, especially of oil, globally is located. And that's why that is important to look at.

We will then treat -- we'll pretend that these high-cost oil-producing areas, potential areas, they also are in the same country as all the consumers of oil. And so the problem boils down to that of the so-called social planner, the dictator, the person who just makes the socially optimal solution of how much to invest, how much to produce, how much to expand production of oil in order to maximize global welfare, world welfare. Everybody's equal. There are no countries. You just do it in terms of economic efficiency.

As you can see, there's still a dilemma involved because if the planner wants to maximize consumer welfare, well, he would simply invest maximally in expanding production, pushing down prices, giving abundant, cheap energy to everybody. However, he's also the manager, the owner of a high-cost producing region. And as that producer, he would run into exactly the same risk that Mr. Vavilov described as he talked about what happens if you make a big commitment to expand oil production in a high-price regime or expectation or high oil prices and the price plummets. Then he suffers the consequences, this risk.

Now, since he owns everything and since he's the consumer and the producer, he can still figure out whatever the optimal investment strategy is, assuming that you know what future oil prices will be, what consumption demand will be. And so our model will take various scenarios for those two variables. And what we will then do is evaluate world welfare, how much GDP is being produced per capita if you make that optimal investment.

Now, that gives us then what we call a benchmark. It's completely unrealistic since the real world separates producers and consumers in particular into different countries with different interests. And those interests then cannot be solved by a single dictator saying, here, this is what's best for all of us. Rather, the individual producers and consumers are going to be pushing for solutions that actually run counter to each other. Obviously, again, the consumer countries would love to see more investment and expanded production. The producing countries are still exposed to this risk, but now since they're separate countries, they're exposed and bear the risk solely on their own. They will, therefore, under-invest from the standpoint of global welfare. That will be a loss of welfare for the consumers.

So we'll model the strategies in this world, again assuming oil prices, certain levels of consumption demand. We'll compute the welfare of consumers in these two types of countries in this constrained model and, again, we'll let them be extremely egoistic. They don't cooperate about anything. They only think about their own interests. We'll have that as kind of a second benchmark.

Now, the third thing we're going to do, of course, is take the step to propose various sorts of mechanisms that can alleviate the risk for the producer in particular, so that we can get more investment on the part of these high-cost producers. We'll share the risk. So this will be an exercise in institutional design, trying to figure out what are the feasible contracts that could be done. To what extent, for instance, could foreign investment, investment by investors from the consuming country in the producing countries, serve as the mechanism for efficient risk sharing. And then diversification of risk of the income that the producers earn from their production of oil, diversify that risk through sovereign wealth funds and so forth. So we'll look at these things that have been mentioned by some of the preceding speakers, but we'll be able then to derive a cost and benefit from these different mechanisms, the cost of noncooperation or, conversely, the benefits of pursuing these mechanisms of cooperation.

So that's the idea. It's having -- as I said, think of it as a continuum, as a thermometer with the highest possible temperature or the highest possible benefit to the globe and the lowest, you know, most dog-eat-dog type of world and what might happen there, and then begin to incorporate various proposals for cooperation into this and measure it, the benefits of these, in terms of real per capita GDP. The point obviously there being to provide an incentive, to give a real tangible sense of the gains to be had from cooperation.

So that's our initial idea about the series of models that we'll be working on. I won't, because I probably can't, go into all the technical details of this. But we're also looking forward. We'd love to be able to extend these models to incorporate the other topics that we've mentioned here: number one, environmental concerns, climate change, alternative energy technologies. They, by the way, you know, introduce new sorts of constraints on the behavior of these two actors -- the consumers and the producers -- and the financial system's design and to what extent a financial system architecture could facilitate the type of cooperation that I indicated would move us in that continuum closer to something that would be closer to the global social optimum, the utopian world of let's all be in one happy family and share all the risk and share all the benefits.

So that's basically our idea. I don't want to go into further details because I want to give a couple minutes here for John Eaton, who, as I said in the beginning, John is professor of economics at NYU. He's the director of the Starr Center for Empirical Economics there. He's also the editor of the very prestigious journal, Journal of International Economics, and writes and comments and researches broadly on topics of international trade and finance. So we've invited Jonathan here as a kind of a gamble because we don't know whether he thinks this is all crazy ideas and worthless or if he might have, hopefully, something constructive to say to us about what he's heard here so far.

Thank you. And Jonathan, please.

MR. EATON: Thanks very much, Cliff. As Cliff said, I am an outsider to this project, but I'm very excited to have a chance to hear about it. I wanted to make a couple of points, just elaborating on what was -- remarks that relate to, I think, aspects of what everyone has said before.

First of all, Andrey mentioned that this is a project about the long run. It's not a project about the crisis, per se, but looking beyond the crisis. And I think we should all bear in mind that these are two things that really can't be separated. The crisis isn't going to get solved if people don't have a sense of where we're going from here. And I think one of the reasons -- there are many reasons, but one of the reasons is there's so much uncertainty about where the world is going to go. What kind of environmental regime are we going to have? What's going to -- what kind of current account imbalances are we going to have?

Barry showed you those numbers of the current account imbalances. I can assure you all of those numbers of absolute value will be smaller next year because the world is shrinking. The GDP is shrinking. We're all hoping it'll expand again, but will those numbers simply come back to being what they were or will there be shifts in savings and investment patterns around the world that'll make those numbers very different? I suspect the second and we're going to have to have some sense of what that's going to be.

We're seeing a Japanese stimulus package, which I don't think is going to be a temporary stimulus package. I think we're going to see much more public spending in China, a much smaller current account surpluses from China. And I think we're going to have to see much smaller current account deficits run by the United States. So the world isn't just going to blow back to being what it was.

I also suspect the world isn't going to blow back to what it -- the price of oil isn't simply going to go back to being what it was. And we -- but I think the recovery will be hastened if our leaderships provides us a better road map of where things are going.

So there's one aspect, the crisis versus looking at the longer term and I think we should not get our eyes off the longer term. And I think this project is doing a great thing in thinking about things over the longer term.

I also am very excited about it's combining the analysis of energy with the analysis of capital markets. I think, as an international economist, I've worked both modeling international trade and modeling international capital markets, but I'm beginning to think my mistake was not to think about modeling them together because they connect in many basic ways. Let me give just two examples and then I'm done.

One is we've recently seen a very dramatic collapse in trade, in merchandise trade. Merchandise trade data come out monthly with about a two-month lag. The numbers from October to November and from November to December were stunning. We've been looking at GDP, the stock market, and other industrial production. These are other things that we can look at at pretty high frequency. And the collapse of trade in the last few months has been beyond what we've been seeing in any other real magnitudes, on the order of 20 percent. And this is whatever a country's reporting across commodities, across exporters/importers. Trade has just shriveled up much more than you would think just looking at other measures of spending and production.

No one has an explanation for it that's been tested. I have two pet theories. One is it's inventories. Trade is very inventory-intensive. People -- producers and retailers are expecting less in purchases. Their inventories are much higher than they want. They're not filling in new orders. If that's true, it'll probably be a fairly temporary phenomenon and we'll see some improvement in trade.

Another explanation is that it's trade credit, that the financial sector and failures with the financial sector are spilling into the trade sector. We don't usually think about credit when we think about trade, but, in fact, exporters and importers have to get credit when they put things on boats and ship them. Letters of credit have become very expensive and much harder to get. So this is just one example of an interaction between what's going on with trade and what's going on in international financial markets.

The second has to do with the modeling of energy itself. It's a very hard problem. And I'm a little embarrassed as a trade economist, I've never -- I've thought it's an important thing. I've never attacked energy. Why is it so hard? Because dynamics are very -- are essential to it.

The first model we had of oil pricing, a very famous conical model by Hotelling said oil -- pricing a natural -- exhaustible natural resource is all about thinking ahead, looking into the future. And with energy, as Andrey said, a key thing is investment, and he talked about investment on the producer's side. What's going to be the return on these investments? Well, who knows what they're going to be? People tend to forecast the current price forward. That tends to be a very bad forecast. But we see these starts and stops in energy extraction investments. Wildly different numbers coming out depending on what kind of figures you're assuming about prices.

And we can -- we didn't mention, but the same thing holds on the consumer's side, on the buyer's side. I've been looking at -- I'm thinking of buying a house and some of the houses I go into have oil furnaces and some of them have gas furnaces and some of them have heat pumps. And I have to decide which one is going to be the most economical for me and that requires my making a decision into the future. The dynamics are very complicated and, I should say, not well understood. And I'm optimistic this project will bring us forward.

Just some other things where energy and capital markets interact, energy prices create big swings in what countries are rich and what countries are poor. This creates a lot of uncertainty. Capital markets are a way of diversifying this uncertainty, but we still have a long way to go in ensuring the existence of capital markets that'll allow for a good level of diversification. The sovereign wealth funds and such are attempts to do that, but very imperfect ones.

Capital markets also send signals. They send price signals to producers, both in terms of futures prices and interest rates, and it's very important to get these signals right. And having a well-functioning set of capital markets plays a critical role in producing the right price signals to producers. Capital markets connect people's expectations about the future with the present. And that's an essential feature of the oil market that I -- which connects with capital markets that I think has been very much neglected in the current state of our research.

So let me just conclude by saying I think this is a very exciting project and I wish Andrey and Barry and Cliff very good luck with it.

MR. GADDY: Thank you very much, Jonathan, for those kind words and good insights. We'll be talking, I'm sure, more to you about this.

So now I want to use the minutes we have left for comments and questions from the audience. I want to give the floor first to an honored guest, another of the honored guests. You're all honored guests. One in particular, Andrei Mozhin, who is the executive director of the International Monetary Fund for the Russian Federation.

Andrei, you're very welcome to speak in the microphone if that's more convenient. You could come up here if you'd like, but it might be easier and quicker for you to speak with the microphone there.

MR. MOZHIN: Is it on? Okay. Thank you very much, Cliff.

Let me say that I very much welcome this project. I think this is a very topical -- the purpose of this project is very topical. The combination chosen, which is energy and current account imbalances or, you know, energy and financial developments, I think this is a very interesting approach.

Talking about energy security, one aspect of it which immediately comes to mind is energy dependency. And we've seen a recent conflict between Russia and the Ukraine, and we've seen a lot of concern in Western Europe regarding the fact that Europe has become significantly dependent on Russia with respect to gas supply and it may become even more dependent in the future if we look at some of the projections. Now, this dependency is clearly mutual. And interestingly, the fact that this dependency is mutual doesn't really mean that the countries like to be dependent. They still don't like to be dependent and we hear a lot of concern from the Europeans that how come, I mean, we have become so dependent in Russia as if Russia did not become dependent on Europe to the same extent. Now, the more we hear that they are concerned about their dependency, the more we become concerned about our dependency on their market. And the more we hear about that they want to diversify their energy imports, the more we think that we may want to diversify our energy exports, and we have perhaps much more -- many more options in diversifying our energy exports.

So, I mean, I think the element which you may want to introduce into the project under the title of Energy Security is this energy dependency subject which is going to be with us for many years, I think. And I believe it's good that this dependency will continue and perhaps even increase because this dependency is mutual.

The same is true about financial flows and current account imbalances. I don't know, I hope that -- unless we allow this deglobalization to continue, I hope we do not. And in that case, we certainly should be expanding current account imbalances between countries to stay. They may change, of course, but they will be present, which is another element of international financial dependency between countries.

There are many elements to that. For example, now we will see a lot of efforts in addressing the current crisis. For example, you know, all these fiscal stimulus packages, countries will compete for financing these fiscal stimulus packages. And Mr. Zavadnikov, of course, likes competition, so this is one of the elements.

It is clear, for example, that the U.S. is very unlikely to be able to finance this kind of -- this size of the fiscal stimulus out of its own savings, although they may be growing and they seem to be growing recently, so, which means that at least part of this fiscal stimulus will have to be financed by the rest of the world. Europe is more or less in the same situation, at least big European players like the UK. They (inaudible) countries. They're not like Japan in the 1990s, where Japan -- the Japanese could finance their many fiscal stimulus efforts out of their own savings. That's not the case for U.S., UK, and quite a few others.

And now this will be clearly -- it remains to be seen how this will play out. So, of course, you know, that's something you would expect to hear from someone coming from the IMF, global imbalances.

So -- but the bottom line of what I wanted to say is that I think this is a very promising, very interesting project. And I wish all of you all the best. Thank you.

MR. GADDY: Thank you. Well, I think I'll speak on behalf of all of us and say we very much appreciate those comments. You're absolutely right, we will look at this issue of interdependence and, as you pointed out, whether it's a happy interdependence or an unhappy interdependence. I actually wanted to use Anna Karenina in the line, but anyway, it's something along those ideas that -- whether it's happy or unhappy.

Let me ask if we have any other comments or questions from the audience. Please raise your hand, stand up, identify yourself. The -- let me start at the very back then.

MR. FROUDY: Hi. I'm Patrick Froudy from Almadon International, and we track sovereign wealth funds as part of one of our services. I just have a question about this framework, which sovereign wealth funds. You basically used an example we need to create something, so they start investing.

But my question is as we see this economic crisis continue, most of the countries that's had problems with sovereign wealth funds have basically dropped their objections. As we see in Germany, with today Daimler just got invested by a sovereign wealth fund with 9.1 percent of the stake. The German government came out and said, oh, this is great, we don't need to bail them out, so we love this investment. Compare this to a year ago, Germany was saying no new sovereign wealth fund investments in Germany.

Same with Italy. Italy had very strong objections and now they're basically letting the Libyans buy out their country.

So I'm just wondering will this framework change as this crisis goes on? I mean, will you -- thought about basically changing -- thinking about sovereign wealth funds is what the current status stay the same?

Thank you.

MR. GADDY: Thank you very much. What I'm going to do is take a couple more questions. Again, maybe I can venture to just give a brief answer to that is you're absolutely right. I think Barry was the one who mentioned that as we looked at the general reform of the international financial architecture, what is important is to have a system that's robust to both high oil prices and low oil prices. And that is what -- exactly what you're describing.

Jonathan mentioned the same thing. It makes no sense to suddenly put in a lot of effort to design a new system that's based on what things look like today when we know they didn't look this way six months ago and they probably won't look this way six months or at least a year in advance. We need to think broadly. And our advantage is that we are living through a time of radical changes in all the difference areas and we need to take that to heart and think about, okay, what sort of proposals do we need that can stand us well in both worlds of high oil prices, low oil prices, recession, boom, bubble, and so forth.

Sir, let me take your question here in the front. Wait for the microphone, please.

MR. NOVIK: Sorry. My name Dmitri Novik. What is not understandable absolutely how you can see only two countries in this situation. Honestly, you mentioned only Russia and the United States and nothing else. It's absolutely a wrong proposition for any investigation.

MR. GADDY: All right. Thank you very much. One question here in the very front.

MR. HAYES: Hi. Jonathan Hayes from Jane's Information Group.

As you've developed this model, I'm sure you've looked at cases where there could be mutual cooperation between consumers and producers. Just to give us a better idea, as you've developed this model where have you seen where consumers and producers or there's some kind of inefficiency where they can cooperate more closely? Production, pipeline, just any kind of an example so we can see a little bit more clearly how such a model could work.

Thanks.

MR. GADDY: Right. Well, I think what you're asking is exactly that third part about actual real-world mechanisms that would allow you to do that, so that's a great question.

One quick further question and then I'm going to ask if Barry or Andrey or John have just brief replies to any of these questions. Let me just take one more question. Yes, the lady there.

MICHELLE: Hi. I'm Michelle with LaRouchePAC.

The -- as it stands right now, there's quadrillions of dollars in derivatives that can't be paid really in any realistic way. And the attempt to try to pay them would be essentially to impose the Versailles Treaty system on the rest of the world, which ended with Schachtian economic policies and led into World War II. The alternative to actually that policy at that point was what Franklin Roosevelt had done and had intended to do after the war, and this actually gets to the issue with the Bretton Woods. Because Roosevelt specifically told Churchill that what his intention was, after the war was over, was to take the colonialism that had existed through the 19th century and even before that, to take that colonial system and break it and establish a new credit system that would enable nations to develop in the same way that the United States had actually been able to develop once they broke free from the colonial system. Unfortunately, Roosevelt died and that didn't happen. We still see colonialism today.

So unless we actually address this thing from the top, you can't play games inside -- you can't play games with the dynamics of a system that's dead. The thing is dead right now. We need a new credit system and there are proposals, legitimate proposals, that would work.

You guys know, I'm sure, what LaRouche has proposed. If not, you should talk to me about it because he's the one who actually said this crisis was going to occur and he's the one that actually has a real Remonion approach to actually dealing with the problem.

MR. GADDY: Good. Thank you. All right, let me -- we really are at the end of our time, but I know that if Andrey or Barry, John, or Valentin have any -- have remembered some specific points in these questions you want to answer, please go ahead.

MR. ICKES: Sure. On the point about the types of investment cooperation to take place, one -- so one concrete problem is that in Russia, much of the new reserves are in Eastern Siberia, you know. The investments required are not small investments. They're not even the type of investments that some Western oil companies did in Western Siberia. They're huge, massive investments. So investments on that scale incorporate large risks, okay, because, you know, they're irreversible. So there's big scope for risk-sharing.

For example, you know, the solution to the problem, if you took away nationality, would be to have cooperation, Western oil companies investing in infrastructure in Eastern Siberia and Russia investing surpluses in the West. That way Russia diversifies its risk of the prices and it diversifies the investment risk. Of course, the problem we face is that nationalistic policies prevent what seems like a very good solution. So one of the things we want to study is exactly, you know, what is the cost of nations making these investment decisions, preventing, you know, what could be an efficient solution, quantifying what an efficient solution would be. And then, hopefully, some policy that can make both sides better off can actually take place.

See, we started this and we knew right away the one way in which producers and consumers can't cooperate is by negotiating on price. You know, that'll never work. Consuming countries want low prices, producing countries want high prices. There's no possible way to make that kind of cooperation work. But because energy requires this long-term investment, there is. And so that's what we -- that's an example of what we want to work on.

MR. GADDY: Andrey?

MR. VAVILOV: Okay, yes. Thank you. I'd just like to say a couple words about the other countries. You know, we are not talking about only Russia and U.S. We are talking about the model approach, which kind of -- type of player we are looking on. And U.S., U.S. is consumer player. And, you know, frankly speaking, it may be most important consumer player of all. And maybe it's more interesting to look at this player, like consumer, in our research.

And considering Russia, it's also maybe most interesting producer player in the world. Because Russia has a huge -- maybe one of the most of huge reserves and these oil reserves -- I mean oil and gas reserves. And these reserves needs a lot of investment. And this is a very interesting case for an investment decision in uncertain circumstances.

And, of course, we are also looking for other producers, like Arab countries, Middle East. But not so many interesting cases in these players. And, of course, we are looking for other players from the consumer part and from the producer part, also. But from our model point of view, Russia is a producer and U.S. like a consumer. It's a most interesting case for us.

MR. GADDY: Thank you, Andrey.

MR. VAVILOV: It's not the question of political corrects. It's a question of research.

MR. GADDY: Thank you very much, Andrey.

I apologize for having gone slightly over the time. I hope that's not been onerous on you. I certainly appreciate all of your attendance and your attention during this period, and I want to thank again all of the panelists for very interesting comments. Thank you.

MR. VAVILOV: Thank you.

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