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## PROCEEDINGS

MR. GADDY: Good morning. My name is Clifford Gaddy, and I have the pleasure of welcoming you this morning to our session on "The Future of Russian Energy Policy." Your strong attendance here at this event, and by strong I mean not just in numbers, but a number of very important and influential people, some of whom I know quite well, bears witness to the importance of this subject today.

Each of you of course knows far better than I the specific reasons why you are here, but I do find it remarkable how many different people there are who are interested in Russia's oil and gas and for how many different reasons. Let me just mention a little bit of that.

Some of course are interested in the commodities of oil and gas themselves, the supply that Russia can offer of natural gas to heat homes or oil that can fuel transport. Others are more interested in the income, the wealth, that oil and gas can bring. Some people are interested in high prices; other people are interested in low prices. Some people are worried that Russia may not be able to produce enough oil and gas; other people think it produces too much for its own good and anybody else's.

Clearly, Russians themselves living inside Russia are concerned and affected by oil and gas. Oil and gas sustain the Russian domestic economy. I like to use the twin pillars of oil and gas, now with a platform on top with much economic activity that is not necessarily oil and gas, and that non-oil activity

being piled higher and higher on the pillars. Yet in my opinion that does not make oil and gas less important for Russia, only more important.

Outside Russia, as I mentioned, there is a great deal of concern about the Russian gas, oil, and energy sectors in general. Some of Russia's neighbors, especially those whose economies were built for decades on the assumption of cheap, almost free energy from the USSR today worry about Russia's ability to harm their economies by suddenly raising prices or reducing supplies. They would like to be less dependent on Russian energy, that is, to have less Russian energy. That is difficult to do, but that would be a goal.

Others in Europe have the opposite concern. They count on more Russian energy, especially natural gas, and now their main concern is that it will not be there, not necessarily because of an intention to cut it off politically, but because of the inability to produce enough to meet the commitments that Russia has made.

Even those countries and consumers who do not necessarily use Russian oil and directly realize that Russia has a vital global role. They worried about the continued ability of Russia to feed the world's pool of energy and less about who specifically receives it. As my friends in the energy industry would say, and say all the time, it is about the total number of molecules in the world, not about any specific addresses that these specific molecules may have.

At the same time, I know quite clearly that these energy industry people are particularly interested in the molecules that come from Russia, and

they have seen Russia as one of the last great hopes for their own futures. It is a potential source for reserve replacement and, hopefully, profits from sales.

But finally there is another major focus, another major concern, which derives from Russia's energy that I think is a special concern here in Washington, and this is about the financial side of oil and gas. Russia's oil and gas abundance as the world's largest producer and exporter of both of these commodities lies at the heart of one of the most dramatic reversals of fate in recent economic and perhaps geopolitical history.

In 1998, Russia was a country so impoverished and a country whose meager finances had been so mismanaged that it was essentially bankrupt. It was so depleted of foreign reserves that denial of a bailout by the IMF to the tune of \$15 billion or so could effectively bring down a government. When Vladimir Putin assumed the post of Prime Minister a year later in August 1999, the country's foreign reserves were down to under \$8 billion and falling, and bottomed out at about \$6.6 billion that year. Meanwhile, with debt still to the IMF of \$16.6 billion, Russia was effectively bankrupt.

Fast-forward now to this past summer. In August 2006, Russia's foreign reserves totaled \$258 billion. In addition, it had another \$65 billion in its oil stabilization fund. The IMF in the mean time had at that point total lendable funds to everybody in the world of less than \$250 billion. And right now the Russian government continues to add cash to its foreign exchange reserves and stabilization fund at a rate of \$170 billion a year.

Russia has thus come a long way since the days when it was desperately dependent on the financial largess of the West. Indeed, as the holder of one of the largest current account surpluses in the world, it is one of the biggest financiers of the U.S. current account deficit.

The speed and magnitude of Russia's reversal of fortune I think has left many people in Washington and the West in general in shock. It is not the days when a telephone call from the Treasury Department was enough to bring down a government. Back in those days, the line from people in the administration was, Yeah, the Russians will huff and puff about this or that policy that the U.S. adopts, but they will "always climb back on the bus; we don't have to worry about them." Today, I do not think that people believe that is true. In effect, I guess the Russians can jump off the bus and nobody hopes they will ever return. They are described as a "petro bully" and there are a number of other terms being used. It all boils down to the increased wealth and the reversal of fortune that I referred to, and it is all thanks to oil and gas.

How long can this continue? Can Russia continue to help offset increasing demand worldwide from China, from India, from the United States? Can Western Europe count on continued supplies of natural gas to meet the commitments that the Russians have made? Can Russian households count on heat and electricity this winter? And if supplies do run short in any of these areas, how will it be compensated? Who loses? Who wins? These are big questions, we cannot answer them all, but to begin to address them, I think we

need to begin with an in-depth analysis of current and future policy toward the energy sector in Russia.

Today we have a unique opportunity to do so from perhaps the best person we could possibly have to do it, Vladimir Milov. Vladimir is former Deputy Minister of Energy in Russia. He is president of an institute that he himself founded as he left government, the Institute for Energy Policy in Moscow. He commentates broadly in both the Russian and Western media, writing everything from op-eds to lengthy academic articles in journals.

Virtually no one that I know who writes or thinks about the Russian energy question can fail to consult and refer to the work of Vladimir Milov. He is a rare combination of someone who is knowledgeable, insightful, and also quite courageous in some of the things he says. We are delighted to have him here at Brookings. He has I know an in-depth presentation of the subject he is going to address. Hopefully, at the end of his presentation there will be ample time for questions from all of you or from those of you who would like to ask questions to Vladimir, and we will continue just probably having Vladimir at the podium after his presentation and move directly into the question and answer session. Without further ado, let me invite Vladimir to step up here and begin your presentation.

MR. MILOV: Thank you very much. It is definitely a pleasure to be here, and I would like to thank the Brookings Institution for inviting me, and particularly Clifford Gaddy.

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Of course, Russian energy policy and politics is a topic which is I think to a large extent misunderstood by a lot of people who try to analyze this because there are a lot of various multiple aspects and dimensions of looking at those things which Clifford has been mentioning. People sometimes miss the complex picture which has been developing throughout the years of Russian independence, and I think what we are seeing now in Russian energy policy is not really something unexpected but probably a natural result of the developments that occurred in this recent period. The question is whether this situation will move further, and I will try to provide some of the answers, describing the complex picture that exists today.

I would like to start with the idea that it is not exactly correct to consider Russia as a monolith. This might be an obvious statement to some of you, but I am starting to notice from multiple comments and publications which occur in the West that Russia sometimes is viewed as something like a monolith. There is some kind of perception that let us say in 1991 it had all turned to be very pro-democratic, market-oriented, and supportive of reforms, and then in recent years all of Russia had all of a sudden turned to be more authoritarian drifting and so on, which is not exactly true. In this case, I like the definition of the two Russias which basically exist at the same time and have a fair amount of struggle between themselves, a struggle for the future in the country. In this respect, I like the definition that is often used by Bill Browner (?), the definition of two Russias, I think this is where my agreement with Bill Browner ends at the definition part of

it, because I do not tend to see the situation of two Russias as two various groups of people or groups of interests who can be particularly defined. Going deeper into the psychological and cultural fundamentals of the Russian nation, I would rather describe it in a split personality point of view. In our national symbol we have this two-headed bird. Actually, this symbol was invented long before the Chernobyl nuclear accident, but I think this two-headed bird well reflects a lot about Russian culture and psychology. The heads of this bird look exactly in the opposite directions. Some people say that one bird looks to the East, another to the West, but I think this is not an important thing. An important thing is that both heads look exactly in the opposition directions which is I think the correct description of the Russian split personality issue.

I would try to extrapolate this idea of Russian split personality, the two Russias, on the general analysis of what is taking place in the country's economy. This chart here shows that there is a very strong difference and in fact inequality between the two different sectors of the economy that have emerged during the course of reforms in the last 15 years.

The private sector, which not without some limitations but has been effectively developing and actually contributing the most to the recent impressive economic performance of the country. So I think it will a major mistake to attribute what has been happening in Russia starting from 1999 or 2000, the impressive economic growth, actual improvements in efficiency and economic performance, it would be fundamentally wrong to attribute this to state



policies because in a lot of ways the state had acted as the observer to this process and most of the economic growth was created by the efforts of the newly established private sector. I think Andrei Illarionov, the former economic adviser to the Russian President, was in one of his presentations giving the idea of actually the negative contribution of the government's efforts to economic growth starting from 2000 which was in fact counterweighted with the efforts of the private sector which still made it possible to overcome this negative contribution of the state's influence. I have some doubts about Andrei's methodology, but I think definitely the key dimension of his thinking is pretty much correct. It was the private sector that created our recent economic successes, and there is still this remaining public sector which employs up to 40 percent of the employees in the Russian Federation but still produces roughly less than one-third of the GDP. You can see how serious is the productivity gap between the private and public sectors in Russia. And actually, absolutely the same picture structurally exists in the energy sector itself.

Sometime I think in the beginning of this new millennium we had faced the situation after the decade of reforms have actually managed to establish two absolutely different energy sectors within the country. First was the part of the energy sector which had undergone some major reforms during the 1990s. I am going to be saying a little bit more about these reforms, but the key result was quite impressive output growth, efficiency growth, and the growth of

competitiveness which had contributed a lot to the generally impressive performance of both the Russian economy and the Russian energy sector recently.

You can see that sectors like the independent gas producer's sector consisting of the private companies not linked with the state in no way, and the privatized oil companies that have been showing a stable and very impressive production growth rates during the recent years. What is important, I think it is quite a remarkable thing if you take a look at the performance of the coal sector, because as some of you might recall, the coal sector was the headache of the Soviet and Russian governments back in the 1980s, and during the 1990s it was heavily subsidized. Already in 1995, the Russian coal sector had received about \$1.5 billion of annual subsidies from the federal budget through subsidies to enterprises. These subsidies were reduced to a minimum level. Currently the coal sector receives about \$200 million mostly not as subsidies to enterprises, but as measures for continued the closing down of inefficient mines and creating new jobs for the former miners. But in fact, what happened was there was a kind of small economic miracle because the coal sector had delivered somewhat impressive output growth rates during the recent period which was a clear indication of success of market reforms that have taken place in this very troubled sector of the Russian economy during the 1980s and 1990s.

On the contrary, there is the other part of the Russian energy sector which is particularly very important domestically because it is to a large extent connected with supplying domestic consumers with energy. Over 50 percent of

end-user energy consumed in Russia is gas and electricity which were never privatized and had inherited the same kind of organizational structure as existed during the 1980s under the Soviet area and still are continuing to hang on under state dominance and the regulated price environment. And there was also a part of the oil sector which was subject to be completely privatized when I had served in the government as far as in 2002, the issue of privatization of the remains of the state-owned oil sector was also on the agenda. As we can see from the lower part of this chart, the performance of the remains of the state-controlled energy sector were far less impressive, to say the least. Output growth in Gazprom during that period had been zero, output growth at shown by the publicly owned oil companies was far less impressive then in the state sector, and also there has been quite moderate growth of production of electricity despite growing demand which had also led to certain negative developments that we have been able to observe during the recent winter and are observing now and possibly will have to witness during the upcoming winter which will deliver some challenges to the Russian publicly owned electricity sector.

This slide is just a short illustration about the actual results of the performance of the part of the Russian energy sector which continues to remain public, namely, the electricity and gas sectors, which, totally unlike the other part which was privatized and now delivers growth and finally got rid of subsidization, on the contrary, the state-owned electricity and gas sectors have been demonstrating significant limitations on their performance, particularly

underinvestment and inability to deliver goods and services to the customers according to demand. This slides gives an idea of the actual cuts of gas and electricity supplies to Russian and other customers during the recent winter, and I would not speculate on what will be the extent of cuts this winter because it depends on a multiple number of factors and it will not be justified to include this in the forecast, but this is just the actual description of the developments of the recent January and February which I think observe attention. During the last winter, the accident which received the most public attention with regard to for instance the Russian gas sector was the politically motivated cutoffs of the gas supply to Ukraine in the beginning of January, whereas to me and a lot of professionals, a lot more serious development was actually the crisis of gas supplies that had occurred during the subsequent weeks of the lasting extremely cold temperatures all over Russia and Europe in the last decade of January and the first half of February. In this period, the cuts of the gas supply compared to planned volumes of supply to Russian power stations in central and northwestern Russia had reached 80 to 85 percent which means that when the cold occurred which should not be a surprising thing for my country which is a country that features cold temperatures in winter, and it happens every winter so it should not be a surprise, but in fact it came as a surprise, and particularly the most unpleasant part of the surprise was the telegram that the CEO of the Russian power monopoly RAO UERS, Anatoly Chubais, had received from Gazprom the day before the cold temperatures were about to occur. The telegram was saying that

there was going to be no gas supplied to power stations in central Russia, so they have to get on somehow without it. At least it was a fair warning, maybe short notice a little bit, but in any case.

The unfortunate thing about it was that RAO UERS was forced to spend about \$50 million a week for additional purchases of fuel oil to substitute gas in its power stations. Of course, this is also associated with the fact that the price for fuel oil had immediately surged because the people who sell fuel oil also read this telegram from Gazprom. This is just an illustration of underinvestment which we, the reformists in the Russian government at the beginning of 2000, have been warning about in promoting the idea of market reforms in the electricity and gas sectors which could have solved the problem of underinvestment and low efficiency. We have been warning about these developments and finally they have occurred, like the case of the Russian winter, and to me it did not come as a big surprise.

In power, the situation was also quite serious, and the left chart here is just an illustration of the power supply cuts that also occurred during January and February of this year. It should be said that the overall amount is not big, it is just above 1,000 Megawatts, nothing compared to the size of consumption in the country which is about 150,000 Megawatts, so it is definitely less than 1 percent. But what is important about these gas and power supply cuts is that throughout the year in absolute volume we have no problems of supplying the domestic market with electricity and gas. What is important is that this deficit

has a very marginal nature. It occurs in the very short, but very important peak periods of extremely cold temperatures, and exactly when we need electricity and gas, we cannot have it. So in terms of the overall picture, the number of days when we have this deficit throughout the year, it is not big, just several days a year, but that is enough to create certain troubles for a lot of people. What is important from the left chart here about the power supply cuts is that in order to supply electricity to domestic consumers in the St. Petersburg region, the Russian power monopoly RAO UERS was forced to cut electricity exports to Finland which also brought some negative economic consequences not only to Finland, but to the supplier. The conclusion from this slide is that the inefficiency, underinvestment, and low performance of the remains of the state-owned energy sector of Russia have already started to bite. It means that the delay in market reforms in this area, which I will explain further, was an intentional decision of the Russian government, and was the wrong decision which already creates a lot of discomfort for Russian consumers.

I think it is worth to take a look at the general shift of the policy agenda of the Russian government. If you recall, I think a lot of you might recall, when Mr. Putin came into Russian office as President and when there was the first government under him formed and headed by Mikhail Kasyanov which had announced its comprehensive program of economic reforms, the agenda was all about eliminating the remains of the public sector in the Russian economy and introducing market reforms in order to stimulate growth of productivity and

efficiency in the remains of the public sector, and also the establishment of a favorable business environment for the private sector which was then viewed by the government as the key force of the modernization of the country.

The initial declared goal was the complete separation of economic interests and regulatory functions of the state, so that it was envisaged that the state should leave the economic relations and should also only remain as a regulator. This was generally the description of the economic policy agenda. Also there was a lot of interest in attracting foreign direct investments, and the government was pretty much tolerating them.

You can see, I think it is quite clear after all the recent years and recent developments, that this agenda had dramatically shifted to something exactly the contrary, not the separation of the economic interests and regulatory functions, but actually quite assertive and strong use of the regulatory functions in order to advance the market positions of the state-affiliated companies. And obviously without eliminating the remains of the publicly owned energy sector and economic assets, the state had started to regain control and again take over more economically vital assets and establish itself as a key market player, which is exactly the contrary of what was declared back in 2000.

For instance, let's take a look at what is happening in the oil sector. Actually, there should have been three graphs on the slide. One should have depicted the situation which existed back in 2003 where the state-affiliated companies controlled far less than 15 percent of oil production in Russia, and it

was to a large extent primarily RUSNET, a company which as far as in the summer of 2002 was on the agenda for further privatization. When I was working in the government as a deputy minister, together with some other officials responsible for this like the Honorable Economic Minister German Gref, we have been insisting on quite a quick privatization of RUSNET than actually lobbying it. But in fact, we failed and the chart which should have become mostly green, 90 percent green, had started to turn black again, showing the advancing role of state ownership in the oil sector. Currently, the state directly or indirectly controls about one-third, or about 35 percent, of Russian crude production, and if some new acquisitions and some new deals which are discussed on the market will take place, I am not convinced that they will, but it is quite likely, it might lead us to a situation where let's say a year from now about 65 percent of Russian crude oil production will be actually controlled by the state-affiliated companies which will be a dramatic shift in policies in the oil sector compared to what was happening before. And it is a very important thing to understand why actually there is this policy shift, the complete reverse and reconsideration of policies, has occurred throughout the last 3 or 4 years.

I have been showing this slide during my speech a couple of months ago at the Royal Institute for International Affairs in London, and I was accused by one of the attendees of being a neo-Marxist trying to explain the actions of the Russian government simply through the prism of the level of urels (?) price on the international markets. What I wanted to say in connection with



this slide is much deeper than that. There have been completely different periods of mindsets of the top Russian policymakers during the recent 6 or 7 years which have been absolutely linked with the idea of sustainability of high oil and gas prices. That is basically the point. Let me elaborate on this a little bit because it is very important. When Mr. Putin and his team first came to office sometime in 2000-2001, \$60 oil was something unimaginable, and \$24 oil in this period was considered as a extremely price for urels which a lot of these important policymakers had been convinced will not last because the average price of urels during Yeltsin's era was \$14. Obviously, I have been hearing from one person who has actively participated in the economic reforms of the money and he said, I have serious doubts that Yeltsin would have pursued market reforms in Russia if the oil price was something like today or even a little bit lower.

But what was happening is that we had a temporary relief with slightly higher oil prices than before back in 2000 and 2001, but there was absolutely no assurance that this will last and the prices will not fall again to somewhere where they were in the first half of 1998, at the level of \$10 a barrel. One important factor dominating the thinking in the Russian policymaking environment was the idea of the so-called problem of 2003 where Russia had faced the peak of foreign debt payments, about \$17 billion, and obviously it was considered as a major political challenge, there were different discussions about another possible default in the inability of Russia to pay this, and of course none of the politicians had an idea that the high oil prices might be here to stay.

Everyone thought that it was just a temporary development, that they are not \$10, but \$24. During this period I am just sharing with you my personal impressions by working there at this time, and obviously my impression was that Mr. Putin and his team was pretty much ready to leave office maybe as far as in 2004 because there was a kind of assumption probably that without high oil prices they probably will not be able to do anything with the country.

So at this time they were very much ready to give away the economic policy to the hated liberals. If you recall Putin's addresses and speeches all the time back in 2000 and 2001, they were overfilled with liberal market rhetoric and the economic program of the government had very much reflected the key points of the liberal reformist economic policy agenda. This had slowly started to change as far as in 2002, because what had happened, first, in 2002 there was a story of a slight temporary decline in the level of high oil prices, and you remember the attempts of Russia to cooperate with OPEC to maintain the suitable level of prices, and the prices had to returned to somewhat a considerably high level relative to the standards of the time which was to my understanding viewed as a lesson that prices might not necessarily fall somewhere back where they were in the beginning of 1998, and they might lift for some time. And also 2002 was a year which was dominated by the expectations of the beginning of the Iraq campaign which was obviously a factor which was psychologically leading to the conclusion that if the Iraq campaign happens, the high oil prices might be sustainable for at least one more year or two.

In fact, the campaign began in 2003 which meant that one more year went under relatively high oil prices, and you remember the subsequent events which had been happening on the international oil markets. In 2003, remarkably, a lot of experts had started due to various developments, I am not analyzing the global oil market now, but a lot of experts for the first time in 2003 had started to say that maybe the high oil prices are not something which is absolutely necessary; maybe they are here to stay. Particularly, I recall the event when the respected Alan Greenspan had been commenting on this, I think it was somewhere at the end of summer 2003, when he first said that believes that humanity has entered an era of sustainably high oil prices. Immediately after that I got a call from one very important state official in Russia who has been asking me to come to his office. I was by then already a free and independent analyst, and he asked me the question, Have you heard these remarks by Greenspan? I said, yes. He asked me, What do you think about it? Is this real? Are the oil prices sustainable? Can they last for some time? And in his eyes I read another question which sounded like, Can we really afford ourselves a little bit more than we expected previously?

This I think is the fundamental explanation of the policy shift, because the assurance in the sustainability of high oil prices was something that President Vladimir Putin had never experienced at the beginning or much of his first presidential term, but this is something that he had started to experience as far as closer to the second elections in 2004, and that is where some worrying

signals which have meant the release of the instincts that were contained before because of the understanding of the need to make market reforms of unavailability of any other means to solve the economic challenges of the country. But here the rescue came, the situation which had allowed to suspend the reforms which were viewed as necessary, but it was not love, it was necessity, and at the same time helped certain instincts which were sleeping before that because of the unawareness of the sustainability of high oil prices, but after this awareness came, these instincts were definitely released.

This chart amazingly shows that certain periods of Russian politics where new developments had started to emerge strangely coincide with the periods of severe shifts in the average urel price to more higher levels, the higher, the more assertive and sometimes more arrogant the behavior of the Russian authorities was.

I would have to say a few words about what has been happening after this sustainable oil price situation on the one hand, and the policy shift on the other hand had occurred. The problem is that this sudden rescue that we had received in the form of our growing oil and gas revenues did help us to solve some of the problems, repayment of foreign debt in the first place. This is possibly the single serious economic achievement that we had been facing during recent years. For instance, one more illustration to the fundamental causes of the policy shift, I remember the broadcast of the TV interview with Mr. Putin, I think was December 18, 2003, when he had looked absolutely happy and shining

talking to the journalist and pronouncing words, "Now look, everybody thought 2003 was going to be a disaster because of the foreign debt repayment issue, but we have paid \$17 billion and the country didn't even notice it." So his idea was that we are now at an absolutely new level of policymaking and we can afford ourselves much more than we expected before. But the problem is that the assumptions that were put as the rationale for the economic reform program released back in 2000, they were about creating an investment-favorable environment and eliminating a lot of risks, primarily political and regulatory risks, to substantially increase investments and particularly gross capital formation as a share of GDP. We had been talking about increasing capital formation to 30 to 35, maybe if we are lucky to 40 percent of GDP which was the ultimate goal of the policies.

But because the new policies after the policy shift had been associated with actually more risks and a less-favorable investment climate for private businesses, we have not been seeing any increase in gross capital formation as a share of GDP, it has been stagnating at the level of around 20 percent, which means that the fundamental task of modernization of the country and also the modernization of a large part of the energy sector is not being resolved.

What is happening instead is a surge in the capitalization of Russian stock market not actually supported by significant growth in capital investments and modernization of the infrastructure and modernization of the

economy, which means that to some extent if you also take a look at what is happening in the real estate market, we are observing something similar in some ways that would have been happening in some Asian countries before the 1997-1998 crisis, the development of stock market and real estate bubbles not supported by fundamental investments in modernization.

I think it also deserves an explanation about what has been happening on the other side, on the private sector during the recent period, and I would like to illustrate to you how the success of the Russian private sector, and particularly the private energy sector, had emerged during the recent decade. I think there is a lot of misunderstanding about this in the West. For instance, while traveling to the U.S. this March, I read the letter by this respected gentleman Marshall Goldman to "Foreign Policy" magazine where he was arguing with another respected expert Anders Aslund, and Mr. Goldman was saying, "The Russian oil oligarchs did nothing but send all the money that they could out of the country." This is a quote you can verify. I think it is important that before making these statements, people actually look at things and look at statistics and look at the actual figures of performance and verify before they are making them, because I think these are the origins, the fundamentals of a misunderstanding of the results of the privatization that took place in the Russian oil sector during the 1990s particularly.

This is a chart that shows the level of capital investments in the Russian upstream crude oil production and refining business starting from 1999. I

can tell you that these are low figures because these are only figures which are given by the Russian Statistics Committee which do not reflect the actual level of investment, so it is a little bit higher. But in this case it shows that the oligarchs, the Russian private oil companies, had invested about \$40 billion in Russian the oil production upstream and the refining business over 6 years which is an extremely good result, and this is something that we have never hoped can possibly happen while discussing the future of the oil industry as far as in the second half of the 1990s and the beginning of the 2000s when this process had already started, but the government had to have some time to notice it.

Another point is that there has been speculation, and a lot of speculation continues, that the impressive growth in output of the Russian oil sector was the result of a large number of idle wells and actually the result of the picking of the low-hanging fruit and the result of the opportunities that were inherited from the previous state investments in those enterprises that were privatized in the mid-1990s. What I have to say is that the Rosstat figures which I think generally reflect the real picture show that the number of idle wells did not change; there was no decline in it. That means that the growth in output that we have achieved starting from 1999 was not the growth caused by using of spare capacity that was created before.

Another figure suggests that it was actually a significant growth of productivity per one well, and a more than 30-percent growth in productivity in just 6 years is indeed an impressive result which are the two cornerstones of the

growth of the Russian oil industry, investment and growth in productivity which I think is something that we in the government drafting the Russian energy strategy through 2020 as far as 6 years ago had never envisaged. We had never expected that the private sector would show these impressive results.

We had discussed the maximum possible figure of Russian crude oil output as 6-1/2 million barrels a day at a moderate scenario as far as 2020, now we are delivering almost 10 million barrels a day, and obviously the government had missed this growth which was the result of very effective efforts of the private sector which is obviously to be contrasted with the underperformance of the public segment of the Russian energy sector.

The conclusion from this is that of course Russian privatization over the 1990s was absolutely unfair and absolutely corrupt, which is true, but there is good and bad in everything. It had helped us to establish a very competitive, very forward looking, very strongly developing energy sector which did resolve a lot of tasks that the public sector and the government was not able to resolve before.

But in the recent years, this growth which was shown in the private oil sector and by the independent private gas producers was curbed by the interference of the state and the actions targeted to redistribute influence and market power in favor of the state-affiliated companies, so it did bring the situation to stagnation. For instance, this is the picture of the average daily crude oil output in the recent 4 years, and we have been able to see that during the



recent 26 months we were not able to continue the impressive annual crude output growth that we have experienced before. Some experts argue that Russia had reached a kind of natural plateau in oil production which is not true, and I can elaborate on that a bit further. But if you just add to this levels of crude oil output at Yukos subsidiaries at the level of September 2004, we would have already out-passed 10 million barrels a day.

For instance, if you take a look at the potential of various fields which belong to specific oil-producing companies, there is a lot of potential still there to develop production and increase crude output which is actually contained to a large extent by policies, and I would argue that the key factor influencing the decision making, the investment decisions and development decisions in the Russian oil industry was the redistribution of ownership and the ownership changes. This chart here suggests that the companies which were showing the poorest performance during the recent couple of years were the companies most affected by structural changes and the redistribution of ownership.

For instance, people are saying that it is natural that Sibneft's, now it is called Gazprom Neft, oil production will decline. I have a question about it, because the key oil producing field, Neftegaz, is quite a good oil production company and does have a lot of potential at least for moderate continuing output growth for some more years, and the same applies to Megionneftegas, the subsidiary of Slavneft, particularly the most impressive negative result is the decline in output by the remaining Yukos subsidiaries which obviously were

affected by the events of the recent several years. If only these three companies would have shown a better performance, the growth would have continued.

Last year Russia had demonstrated 2.4 percent of crude output growth, if only Yukos was performing at least at the level of September 2004, it would have been 5 percent, which means that this is not a plateau. This is probably a plateau in somebody's mindset, but not a plateau in oil production.

Another picture in which also we are coming back to the performance of the public energy sector and the fundamentals of the upcoming supply crisis, this is the picture of Gazprom's gas production in the recent 4 years. It is not growing. Obviously it is not a surprise why it is not growing, because to develop upstream gas production and to increase the output you have to invest. If you do not invest in that, production will not increase. That is a mathematical formula, and obviously if you take a look at the structure of Gazprom's capital investments over the recent years, it is very clear that the company simply has not been investing enough in the development of gas production upstream, less than \$2 billion annually over the decade, compared to over \$6 billion annually in the oil production sector, which means that if you compare the public and the private sectors and which one is delivering the better performance for the country, I think the answer is clear. It is very clear that Gazprom has been preferring to invest in some other projects like pipelines particularly where the company had been slightly overcharged by its construction affiliates, its widely distributed expertise by, for instance, Vadim Kleiner of the Hermitage Capital Management Fund has

very good presentations on this showing that the cost of construction of 1 kilometer of new pipeline in Gazprom is about 2 to 3 times at the average higher than the average cost normal for the rest of the world.

And another most recent strategic direction of investment recently became financial acquisitions, Sibneft, Sibur, the petrochemical company, RAO UERS, the power companies, united machine building factors both from -- all this had made Gazprom invest about \$18 billion in the recent 3 years in financial acquisitions beyond the gas sector, in other sectors, oil, power, the petrochemical industry, machine building. It is more than the company actually had invested in the development of gas production in a decade. Simply, this is the reason why the production is declining.

The simple conclusion on that slide argues with the fact that some experts try to apply a normal, reasonable economic logic to Gazprom which I think in fact also can be attributed to some misunderstanding of what this company is and how it works. People say that if you increase domestic prices in Russia which are low and subsidized, then Gazprom will have more commercial motivation to increase supplies to domestic markets and get profits.

I think it is important to understand the political role of Gazprom in Russia and its role in the domestic gas market. It is a complete monopoly which has been given away the domestic gas market. Mr. Putin had banned the idea of the restructuring of Gazprom. I was actually the author of the concept of the restructuring of Gazprom released by the Ministry of Economic Development

4 years ago, but this concept was banned by President Putin because he said, translating his words from Russian into Russian, I can say that he said, "We are not going to create a competitive environment on the domestic markets. The domestic market will remain Gazprom's monopoly." And the monopoly is not motivated to increase production, it is motivated for scarcity and pushing for increasing the rents, it is written in the books, and my opinion is that Gazprom already has got the domestic gas market under control. If the price goes up to 300 bucks per 1,000 cubic meters, it will still continue to decline supplies and push the price to 500 bucks. That is I believe the formula that will more or less take place because domestic prices in Russia have been increasing dramatically in the recent years. They had increased threefold in 6 years in real terms, and further growth is expected and discussed. So I think it is not an issue of prices, it is an issue of motivation of the monopoly. The monopoly is motivated to invest increasing its market power further, conquering new markets, not developing the markets that have already been conquered.

The unfortunate story about all this is the story with foreign direct investments. I would have to say that I was, and still continue to be, one of the critics of the policies of the 1990s when actually Yeltsin's government was also quite restrictive to foreign direct investments. The privatization of oil and how it happened had shown a strong inclination to give away assets and oil fields to national capital, some of the deals that have happened and included FDI had went through with tremendous effort and pain, and Russia has never been particularly

friendly to FDIs. Whereas I think this is a big mistake because we need foreign direct investments particularly in the energy sector as we move to more remote areas to longer-term, more risky projects, to products that require the best international expertise and technology, simply it is obvious that if we want to develop those, we need the best economic agents that could deliver that development and these are of course the international oil and gas companies and generally foreign investments.

But unfortunately, what has been taking place recently is also the same kind of pressure that was put on the Russian private sector, the same kind of pressure was put on foreign direct investments. I would argue that it is not xenophobia that is behind it, it is simply the continuation of the policy of the state helping to advance the market positions of the state-affiliated companies, eliminating the competitors. Through restrictions on foreign direct investments, the Russian government can by definition eliminate this competition threat to Russian state-linked companies and create an environment when international oil and gas companies will stand in line at the entrance to Gazprom's office in Namilkina (?) and ask for cooperation because it will be Gazprom who will actually decide on whether the foreign direct investments will be allowed or not or not the state.

This is a joke and please do not take seriously what I will have to say because this is an illustrative example, but what is serious is the conclusion. I was always saying that if let's imagine President George W. Bush making an open

public statement that the U.S. denies Russia access to the WTO for political reasons, let's imagine that happening, and Gazprom still wanted let's say ConocoPhillips and Stuchman (?), my deep conviction is that ConocoPhillips would have been -- Stuchman despite the political denial of Russia to the WTO. So it is important to understand that the underline of this policy toward FDIs is still assistant to the market strategies of the state-affiliated companies and, therefore, it gives us an idea of the broader picture where the state actually becomes in a lot of ways the servant of the state-affiliated companies and their market interests. And particularly the unfortunate illustration of that are the developments with the Sakhalin II project which is really the unfortunate thing for the image of Russia, because I would name just a few key points. First, Sakhalin II was a problematic environmental project from the beginning and the only parties who raised hell about that were the independent nongovernmental environmental organizations and the European Bank and Reconstruction and Development which is part of the financing of the project. The Russian government was never actually paying any attention to some environmental challenges, and it had issued an environmental approval or permit for the project as far as 3 years ago.

Another problem is that there are a lot of projects in Russia which are actually pursued by either the government or the state-affiliated companies which feature a much poorer environmental record than Sakhalin II. For instance, the idea of building the oil pipeline just 800 meters away from Baikal Lake shore

which was condemned by most of the environmentalists and a lot of economic-sector experts like myself, but it was very much supported by the Ministry of Natural Resources and had got the environmental approval as far as in the beginning of this year which is in environmental terms much more damaging than anything that is happening in Sakhalin. And there are a lot of other projects like for instance the project of a gas pipeline through Altai to China which is discussed and which will significantly damage the unique UNESCO Heritage Plateau at the Altai region. There are other examples such as the pipeline through the Baltics or whatever, and here we don't have environmental problems, we have them in Sakhalin II, by a strange coincidence at the same moment when the state-affiliated company Gazprom seeks project entry under most favorable conditions. The way the environmental claims to the Sakhalin issues have been issued, actually as far as I understand, the project has not received yet a consistent document from the Russian government containing demands to cure some environmental damage, and as far as I understand, a lot of the damage is really curable. It does not mean that it did not occur, I think it is an important thing that we all pay attention to the environmental damage that has been done in Sakhalin by the Sakhalin II project, and the damage is being done and the regulators should become involved, but they should have become involved first long before on the project approval stage. And second, most of the damage is curable so the regulator better not threaten the project with complete revoking of the environmental permit, but it better specify what it wants to which is the natural way of doing things, and I understand that

the investor is pretty much ready to cure the damage in which 90 percent of it is curable. Also it is very clear that this is a selected case because there are a lot of other examples linked with the performance of state companies which are not paid attention to. Therefore, what we are facing I would argue is rather a case of arbitrary use of state regulatory powers to help advance the market positions of the state-affiliated companies.

Just to conclude, I would try to finish with another topic which is, are these oil and gas resources sufficient for the successful economic development of the country alone as just a single factor? Can we become happy just with the oil and gas revenues, not doing the reforms and not paying attention to modernization? In a lot of my recent publications like the one called "Can Russia Become an Oil Paradise" in the magazine issued by the Moscow Carnegie Center, and here is the Web address of the publication, and recently I have been writing an article about that for the economic issues magazine issued in Russia -- and my point is by no means Russia can succeed building its wealth and development only on the oil and gas factor. There are simply not enough resources for that. The politicians, mostly populists, in my country who try to convince people that we can benefit and succeed only using and distributing correctly our oil and gas resources, they are simply lying because there are not enough resources for that. If you speak in absolute terms about our oil and gas revenues, yes, they might seem big, but please do always compare them with the size of the country. If you have 150 million population, if you have huge modernization tasks that lie ahead



of you, I will return to the previous slide, it is very clear that the policies of redistribution have no chance to succeed because compared to the size of the country, there are not going to be enough resources, and I have multiple works illustrating that in detail. And this slide here suggests that only countries with less than 5 or around 5 million population have managed to convert their oil and gas revenues into GDP per capita of \$20,000 by purchase power parity or higher, and the countries with a large population, Russian sized, have no chance to do that.

But in fact, what is happening is that being seduced by some quick opportunities that are arising from the high oil prices, the politicians quickly divert themselves and submit themselves to a more populist and more paternalist policy. You can see for instance the policy shift in terms of budget expense policies. Before 2004 we have been reducing a share of noninterest federal expenses in GDP, but since 2004 it has started to significantly increase and we expect further increases because a lot of new programs have been launched that are actually dependent on more state money inflows like the so-called national projects, socially oriented, and the government is becoming far less cautious in its budget planning because I think this is an issue which has been discussed worldwide, the level of the expected price used for the calculation of planned revenues for the federal budget which has grown from somewhat a little bit above \$20 to \$61 a barrel this year. I think the price is clearly already lower than that and people have started to talk about \$40 oil for next year which is an illustration that the Russian government is not particularly cautious.

Another point is the creation of the so-called state investment fund which is viewed as the key source of the state-led Russian modernization and development. It has been heavily quoted and viewed as the main source of the country's modernization in various documents and statements like a recent Putin speech which had been given on television "An Interview With the Russian People" on October 25th, or the program statement of the United Russia Party, the President's party, which also attributes a lot of meaning to the investment fund as a source of the country's development. The investment fund was established exactly about a year ago and already about \$5 billion are allocated. So we can have an early analysis of how efficient it is and can this really lead us to development.

Let's take a look at how these revenues are redistributed. For instance, it was mainly created to finance the development of transport infrastructure which is extremely underdeveloped in Russia. They have built, for instance, a road between the good paved road between Moscow and Nizhniy Novgorod, the two largest industrialized cities in Central Russia. They do not have a good road connection between them. Imagine that. But, no, this investment fund went elsewhere. Half of it was spent on some regional projects in the St. Petersburg area; that is quite simple because a lot of our leaders originate from that beautiful city. About half of it was spent to finance certain additional infrastructure for development of some new industrial objects in Eastern Siberia which probably is a resurrection of the sort of second wave of

Siberian industrialization which I think Cliff is a much better on than me. And some money has also been given to construct a refinery in Tatarstan. Tatarstan is the region which is located right next to Bashkiria, the other ethnic Volga Region republic. Bashkiria has excessive refinery capacity, but there are some kinds of tense relations between Tatarstan and Bashkortistan, so Tatarstan wants to build its own refinery, they do not like to process their crude at Bashkiri refineries and that is why we need to use the federal investment fund for that.

So the general conclusion is that as we can see from the money already being allocated, it is not being spent to finance some critical infrastructure projects which are about to help development of the country, it is being spent foolishly. In this respect, we are very much following the path of the 1980s when the revenue windfalls have been spent for some unnecessary investments which have led to something which Gregory Gaidar had recently described in his book about the fall of the empire.

Just to conclude, all of this does not mean that the two Russias are turning into one. Not it is not. I would like to describe the situation in the country as the ongoing rivalry between the private Russia, the Russia set for development and the future, and the public Russia which is all about controlled market dominance and rent seeking. The battle is not over yet. It continues in a lot of ways, and both of the sides have their strengths and weaknesses. But the recent shifts in policies have been quite worrying and they mean that in the future we will have strong reasons to expect the further reduction of potential of the

private sector and further expansion of the public sector and not for the sake of development, but for the sake of increased rent seeking. The question is how long this will last. It is obvious that these policies cannot be sustained, but they will last for some time, and just for the better future of my country, I hope for not long. Until they last, we can expect a lot of new developments, a lot of more arrogant attacks on private business, more arrogant actions in the international arena. Will Russia be back on the bus, as Cliff said? I am convinced that most definitely Russia will again be back on the bus and I would ask everybody to forget this particular period which we are passing through right now. But we will have to pass through it, and this will last for some time. This is not going to be easy, so please consider this as more a fair warning. Thank you.

(Applause)

MR. GADDY: Vladimir, why don't you stay here at the microphone? We do have a few brief minutes for questions from the audience. I hope we can take at least a couple. If someone has a question, we have a microphone, if you would just stand up and introduce yourself.

MR. SHERRETTA: Robert Sherretta of International Investor. Earlier this month we got a chance to visit some of the oil facilities you were referring to. I think I can confirm one of your conclusions from our observations, but I may draw a difference with another. We saw many of the facilities that were flaring off the natural gas. It was an obvious sign of waste to us. They claimed that they were using the natural gas as best they could to power the facilities' oil

drilling and oil pumping operations, but it seemed an obvious and incredible waste and environmental waste as well. But I think it confirms what you were saying, that there is no intention to capture this to better deploy it.

On the other hand, from the geologists and many others that we spoke to, we got the distinction impression that the reserves are still not fully accounted for and that there is an awful lot underground waiting to be tapped, waiting to be further developed, and we are much more optimistic on the long-term forecast than many observers have been so far. I wonder if you could comment on that.

MR. GADDY: If you don't mind, let's just take two more questions and then you can balance the answers between all three because we are not going to have too much time. Andrei?

MR. ILLARIONOV: Andrey Illarionov. Vladimir, thank you very much for your very interesting as always and stimulating and entertaining presentation. I have one comment and one question. As the comment, using your own term, the former Mister President's team, as a part of this former Mister President's team, I would suggest to be slightly more cautious when you are stating that the team was ready to leave in the year 2004.

The question would be concerning the title of your topic, "The Future of Energy Policy" and the future of that paternalistic model of economies that have been developed over those years that you have described so well. What could be considered as the real challenge to this model? In your graph you have

shown that perhaps Russia would not get to \$40,000 by PPP on a par with -- anytime soon. So what? Russia can stay at this level of \$10,000, \$11,000 or \$12,000 by PPP for quite a long time. Actually, many other countries, not many, but some other countries that have chosen that model are in the same position for quite a long time. I would mention Venezuela, that at this position for the last 50 years. So that is why Gazprom would raise gas prices for domestic consumption, so it would reduce consumption and it would get more gas for export and maybe to balance the gas supply with other countries. Some of those oil companies that are claimed to be public actually as you know very well in reality are not very much public, but private. So it would be the same some kind of paternalistic model of the economy that can sustain for quite a long time what could be a real challenge in the long-term.

MR. GADDY: I am going to stop there because that is quite enough ground to cover in just a couple of minutes. Maybe you could decide how you are going to answer it.

MR. MILOV: Thank you very much. I will try to briefly answer your questions first because Andrei's questions obviously deserve a bit longer time.

About the reserves in Western Siberia, this is a very important issue because I am one of the experts who is always arguing that Western Siberia is extremely underexplored and no one has an idea. You know this huge gap between the official estimates, the conservative estimates of proven reserves in

Western Siberia, and the estimates made let's say by some international auditing firms like DeGolyer and McNaughton, and Miller and Lents, and it is obvious that because of the huge current production potential in Western Siberia, no one has been paying enough attention in the recent couple of decades for really exploring it further. This is not only the case of Russia. For instance, if you take a look at the Persian Gulf, you will be able to clearly see that the level of drilling that goes on there and the level of exploration is far lower than let's say in the Gulf of Mexico because in the regions with a lot of active current production there is not a very big stimulus for new exploration because you already have a lot of recoverable reserves and you can just go on with them.

Therefore, I always had been wondering why Russian authorities are so focused on the developing of the potential of Eastern Siberia which I think probably Shawn McCormick here would disagree with me, but in any case, I think it has far less potential than Western Siberia. We have another new perspective that is a very strong potential region of oil production and development which is still Western Siberia and will still continue to be our main producing region for decades. Therefore, I think it is also to stimulate that. It is also a question of a forward-looking policy as opposed to a shortsighted rent seeking market influence and revenue redistribution policy. Therefore, yes, I think it is a very prospective region and I think that a fair amount of state policies should be attributed to stimulating the exploration of Western Siberia further.

About gas flaring, this is a mix of history and tradition on the one hand, and the institutional situation in the Russian sector in particular on the other hand. Gas flaring was never generally viewed as a big problem because the environment and the efficient use of resources were never actually being considered as policy cornerstones during the Soviet period. Therefore, to overcome that, new approaches are required. They can take place and the private sector is interested in capturing and using this gas which is currently flared, but here we come to another issue, the institutional issue, the fundamental issue of access to pipelines to transport this gas to consumers. Here we have a huge problem because my estimate is that at average, Gazprom's pipeline transmission system has about 25 percent of its capacity permanently free which is not such an issue of a lack of capacity for independent gas producers, it is the lack of will to provide access in order to retain market dominance which is the key. Because Mr. Putin had chosen his model of gas sector development, the monopoly model, I think we are going to achieve little in the coming years in reducing this gas flaring.

As to Andrei's questions, Andrey, thank you very much, as always, very insightful and provocative questions. I think you must know a lot of issues better than me because you all this time you were closer to the top decision makers in Russian politics.

My point was not that they exactly had this already as a determined factor that they will have to leave, but my point was that they were not certain that



they will be able to cope with certain problems and not to be forced out the same way it was done in June 1996, because these people particularly originating from St. Petersburg, by my deep conviction, this one suitcase experience that they have had in 1996 when their leader, Ex-Governor Sobchak had lost the governor's elections in St. Petersburg and the whole team was forced out because of the results of the free elections, I think this is the kind of historic memory one could not easily forget.

To my observation, I may be wrong, and this is for you to judge because you know better, this was a strong factor and the whole situation was to large extent considered as in some sense hanging by a thread, either we will stay, but there is a large chance that we might be forced out, therefore, we have to do something, which as I illustrated the path that was at least officially declared, market reforms, we have to do something to enable the country to pass through that complicated period which will then enable us to stay, but this is not defined at all. What I am saying is not that they were convinced that they will have to leave, but they were much less assured that they will be allowed to stay, particularly then if you recall in 2000, Russia was still a democratic country, not at all like now.

And about the challenge, what is the challenge for the shift of policies? Here I would say that, yes, of course for some part of the country it is quite satisfactory to hang on with PPP GDP \$10,000, \$12,000 per capita, and a lot of countries do that. I think it is what these present authorities must be probably

thinking about, because on the contrary with your calls for the goals of economic policy, the objectives of economic policy, my observation is that economic growth and a high level of development and a high level of GDP per capita were actually never considered as ultimate goals for some very influential policymakers in the Kremlin and the Russian government, including the very top figures. Therefore, yes, there are a lot of influential people out there who represent this Venezuelan or call it the other way, model, which is quite tolerant for a sustainable, lasting situation of the absence of breakthroughs in economic development and quite low PPP GDP per capita.

In this respect, this also has to do with the definition of the situation in Russia and Russia is being normal or not normal going back to Andrei Shleifer's famous definition of this. According to Andrei Shleifer, I would have to say that his article was first written in 2002 when the situation did not shift that dramatically. What he was saying as I understand it is for this level of development it is normal for Russia to be like that. But for us, people who live in the country, it is still not enough. We cannot approach Russia in these purely relativistic terms. We are not just satisfied that it is normal for us to be that nontransparent, that corrupt, that underdeveloped. I think the key challenge should be ideally the call from a large part of the society for change, because a transfer from \$10,000 PPP GDP to \$20,000 or \$30,000 brings dramatic fundamental changes to all the aspects of the society's life, not only economic, but

social and cultural as well. It is a matter of transfer from survival values to self-expression values, and Andrey, you must know this again much better than I.

So the challenge should be the call from the large of Russian party for change. This is the kind of call which can be compared to some previous events in some neighboring countries like Ukraine, for instance. If this call will not appear in the observed time, it means that the situation will still hang on and be sustainable for a certain period of time. But if such a call appears, this is the only and actually the very important challenge which has the potential to significantly change things. Let's hope that happens. I hope that answers your question. Thank you.

MR. GADDY: Thank you. Regrettably, we are going to have to conclude. We have even gone over our time. I want to again thank all of you for your attendance, for your patience and attention, and please join me in thanking Vladimir Milov for an extraordinary presentation.

(Applause)

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