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GLOBAL EFFECTS OF THE OIL PRICE CRASH

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P R O C E E D I N G S

MR. BOERSMA: We will get started. Good afternoon to all of you. Welcome to Brookings. My name is Tim Boersma. I am the Acting Director of the Energy Security and Climate Initiative here at Brookings.

As you all know, since June of last year, the fall of oil prices has captured political and public debates around the world. In this town in particular I would say a question often raised is what does lower oil prices mean for foreign political regimes.

Countries in those debates, for reasons far beyond the market dynamics that some of our speakers may touch upon in their presentations, are Russia, Iran, and Venezuela.

It so happens to be conveniently that at Brookings in the Foreign Policy Department, we have in-house expertise on all these countries and their wider regions. Therefore, I am delighted that we together with the Center for Middle East Policy here at Brookings have been able to organize this event today, in which we can hopefully address some of the questions you all may have on the effects of falling oil prices on these regimes.

To get a better appreciation of the fall of oil prices, my colleague, Charles Ebinger, who is a Senior Fellow with the Energy Security and Climate Initiative, will first talk about supply and demand patterns that have sort of led us to this situation where we are today. Hopefully, can also give us a forecast of what the price of oil will be in the coming months.

After Charles, I will invite Suzanne Maloney, a Senior Fellow with our Center for Middle East Policy, to discuss the effects of oil prices on Iran.

Then the gentleman sitting next to me, Mr. Harold Trinkunas, a Senior Fellow and Director of the Latin America Initiative here at Brookings, will discuss effects

of lower oil prices on Venezuela, and then finally, Cliff Gaddy, who is a Senior Fellow with our Center on the United States and Europe, will discuss the consequences of lower oil prices on Russia.

It so happens to be that today is the official release of a book that Cliff wrote together with Fiona Hill on Russian President Putin. If you have not received information on your way in, you may find it on your way out after the event.

I will return to you for Q&A, so we look forward to a debate. Charlie, if you want to lead us off.

MR. EBINGER: Thank you, Tim. Thank you, ladies and gentlemen, for coming this afternoon. I will say this month marks the 40th year I have been in the energy field. I will say at no time have I been more confused about what both long and short term trends may be.

Let me hazard a few remarks, recognizing they are said with great humility, and any one of them can probably be undercut by some other event, particularly in the geopolitical arena, that my colleagues will speak more about here today.

I, for one, believe the fall in oil prices we have seen to date is not temporary. It is structural. We can argue where the new structure will emerge. I think a number of things have been happening in the world market for some time that are maybe not getting enough attention.

First, if we go back for the past 11 years, the reality if we do a pie chart of all the different types of fuels there are in the world, oil has been losing a market share. Despite continued prognoses by the IEA, the EIA, numerous oil companies, of a huge growth in demand between now and 2040, I would suggest those may have to be reassessed.

The reason for that is first and foremost right now, clearly the crisis is

exacerbated by the fact we basically have falling or static energy demand in almost the entire world. We have Europe dealing with the Euro crisis, teetering once again, are they in or out of recession. Some countries may be moving in. Some may be stable. No real growth in demand in Europe. No growth in Japan.

Falling demand in China, and I will come back to that in a minute because I think there are some structural things happening in China that probably show we will never return to the high levels of economic growth we have seen in the last numbers of years, and of course, falling demand in other major energy importing countries such as Brazil and India.

On the demand side, it is very difficult to see how we get any spark on market fundamentals, leaving aside geopolitics, leading to a major resurgence in prices any time soon.

Keep in mind that people that invest in energy -- this is obvious to everybody in this room, but it is a point that we often don't say -- people are not for the most part investing in energy production based on what prices are going to be today, tomorrow, or even two years from now.

Some of these projects like the oil sands projects in Canada are 50 year projects, huge capital up front investments, but very marginal investments once the up front capital expenditures has happened. That is to some extent true in things such as our own shale oil revolution because shale oil production can go up pretty quickly, take it off line, and bring it back.

One has to be cautious, but on the other hand, we still have projections because of these long term investments. The EIA, I think, is now saying 600,000 to 700,000 barrels a day of new production in 2015. The Canadians this morning are projecting that by the middle of 2016 despite the current prices, another 500,000 to

600,000 barrels a day of oil sands.

Of course, bits and pieces around the world in non-OPEC producers.

When you consider that, most projections for the growth in world demand in 2015 hover around a million barrels a day. Any of these things if they come to fruition combined with any of the 3.5 million barrels a day of production that is off line because of very political conflicts, if any of these things come back and surprise us in any unanticipated way, we are in a downward spiral further more. I think that is a more likely scenario than on an upward spiral back to \$60 plus.

In the interest of time, let me just conclude with some other dynamics that if we can step back from the current situation and look longer term, things that I think are transforming the world oil market.

First, in the case of shale oil, we are now looking not at marginal deposits, what our geologists used to tell us, how far down the curve we could still find oil. We now can go to source rock. That is a very important thing because that means that if we prove the technology and find a way to do it, probably 70 to 80 percent of the oil that is actually there is at least theoretically capable of being brought out.

We have aging populations in a number of countries, in Japan and China. As people age, they use less energy. We have biofuels, whatever one thinks of biofuels, biofuels are growing on an international basis and beginning to eat away at demand for oil and transportation, and this is important because keep in mind that 70 percent of most projections for the growth and world demand are for transportation fuels.

We have policies actively discouraging driving, in China, because of air pollution. In some cities now, you can only drive once or twice a week.

We have growing environmental consciousness. While you may laugh at it, we now have people not just in the environmental community or the fringes of the

environmental community, but we have people actively on Wall Street reassessing whether they should value fossil fuel companies on the basis of reserves, which if those reserves are produced, we could never meet the two degree climate target that we all know we have to meet.

As a result, there are people actively saying that 50 percent of the oil in place and 30 percent of the gas may never be able to be produced if we are serious about climate change. I don't necessarily agree with that, but this is a growing movement.

When we put this altogether, I think we have the very stark possibility that OPEC is going to continue to pursue the policies they are, the Saudi's are not going to move away from maintaining market share. There is nobody else on the horizon that can actively challenge them.

I believe the Russians will continue to produce as much volume as possible, already exporting nearly four million barrels a day, a fact that often gets lost.

A lot of people are also missing the fact that with the decline in the value of the ruble, we now see the Russians actively stepping up their coal exports. They have now moved to the second lowest cost coal supplier in the world, only because of the decline in the value of the ruble, ironically, largely occurring because of our sanctions regime.

I will stick my neck out and say in the interest of time I think we are looking at an oil price on the bottom somewhere around the \$36 to \$38 a barrel level. I don't think it will stay there because at some point in time, if we look at previous oil shocks in 1986, 1999, and 2008, the low price itself becomes the engine for the big importers, the India's, the China's, the Brazil's, to say okay, we can afford to start our industry up again with prices at this level, but time will tell.

Thank you.

MR. BOERSMA: Thank you, Charlie. I will turn to Suzanne.

MS. MALONEY: Thanks to Tim and Charlie for organizing this discussion today, to all of you for coming out in what initially looked like rain and now it is a beautiful winter afternoon.

I will speak briefly in hopes of encouraging more conversation because there is a lot to get to with respect to both the broader energy market trends that Charlie just provided, as well as the issues for individual countries and regions.

The three of us here in the Center who are addressing Venezuela, Iran, and Russia, are probably competing on the basis of who is the biggest loser from these trends in some respects.

Let me make the case that Iran is in fact the bigger loser from this sharp decline in oil prices. It comes as you all know at a time when the Iranian economy has been battered by years of sanctions, in particular, the intensification of sanctions since 2011, targeting Iran's ability both to export oil as widely as it had previously done, as well as to repatriate the revenues from those oil exports.

These sanctions that targeted the Iranian financial sector have had an enormous impact on Iran's exports and its revenues from those exports, and on the government's own budget and viability.

I think the fact that this price trend is coming at the same time the Rouhani administration was elected in 2013 and an explosive recognition of the fact that the financial crisis for the state and the political crisis in its relationship with the broader world was unsustainable, the Rouhani administration is now challenged with a new set of crises on its agenda. It came in to solve the nuclear issue. They had a plan for addressing the economy, almost irrespective of what happened with the nuclear issue.

Ultimately, in order to grow and in order to blunt the free fall of the economy that occurred in 2012 and 2013, what Iran needs is the ability to export its revenues more freely and to repatriate the revenues from those exports.

This crisis comes at a particularly problematic moment for the credibility of the Rouhani administration at home.

It is also problematic for Iran because Iran in many respects is suffering as a result of the sanctions and constraints on its exports, and it has been in a very beleaguered battle for oil market share. They are watching rising production coming out of Iraq and they are very concerned about their own place within OPEC.

Certainly, maintaining market share within the industry is very important, so it is forcing them to engage, as I will talk about in just a moment, in price discounting and trying to match the Saudi's blow for blow as they are dealing with the dropping prices.

That is politically contentious within the country, and there is already a debate between what I'd call the executive branch, the technocrats, and those within the parliament who have a more politicized perspective on how Iran should be responding.

Iran is also a relatively high cost producer at least within its own neighborhood. Its fields are old. Its fields require an enormous amount of technology and capital that Iran doesn't have access to as a result of sanctions. Again, the margin for Iran is a whole lot lower than it is for the Saudi's, the Emirati's, and others in the region, so the sanctions in that respect are biting even further.

To the extent that the Iranians have been trying to mitigate the impact of sanctions, they have been relying on non-oil exports. Of course, the definition of "non-oil exports" includes much that is dependent on the price of oil and the volumes of their oil exports, including petrochemicals exports.

We have already seen a considerable drop in the value of the global price for petrochemicals. The Iranians were counting on that rising value stream in order to help offset some of the reductions they have experienced, about a million barrels a day, off their prior pre-2011 daily oil exports, about 2.4 million barrels a day. They are down to about 1.3 now and at least 300,000 barrels of that is condensates.

From the Iranian perspective, the leadership perspective, the response has been typically a lot of bluster. You have heard rhetoric from everyone including the Supreme Leader on down that this is in fact a blessing, that it plays into a preferred strategy, which is to wean itself off its oil dependency. This has been, of course, a priority of every Iranian government official and administrations since the discovery of oil 100 years ago in Iran.

It's unlikely to be achieved except as we see under pressure of externally imposed restrictions on their ability to export and repatriate their revenues.

The other point that the Iranian leadership is making, and this isn't really an ideological point, but it is a sort of pointed reminder, I think, to the neighborhood that it is going to hurt the rest of the region and potentially the rest of the world more than it is going to hurt the Iranians.

The Iranians, despite the fact that they have a number of drawbacks to their industry, they in fact have a much more diverse economic base than particularly the Gulf oil producers, so as a result, they have tried to make the case subtly to the Saudi's and others, you know, you don't want to pursue this policy too far because in effect it is going to hurt you more.

Of course, that point has been driven home pretty home by some who said we are going to make sure it hurts you more, and we have seen veiled and less than subtle threats from those who suggest if the pain becomes too deep, that the Iranians

have the ability to close the valves of oil and cripple the economies of its neighbors.

This is again a reminder to the region. I think this reflects a perspective that is both politically convenient for the Iranians to put forward and also certainly has some real resonance for the leadership that what has happened in the price of oil is very much a Saudi driven agenda, and it is in some way aimed at Iran's bottom line and Iran's viability as an independent state.

I don't know if it is fair to say this is the sole view of the leadership. I think it is quite clear the Oil Minister that was put in place after the 2013 election of President Rouhani and the return of many technocrats, that he and those around him certainly understand the dynamics of the market that Charlie talked about, the structural factors, demand, weakness, and over supply, that have contributed to the situation, and yet this fixation on the Saudi role and the Saudi agenda is one that as I said is politically convenient, both at home and within the region, and something that I think does strike at the core of the Iranian view of the world.

It also harkens back to some of their prior experiences, and here I would say and underscore that the Iranian response today is reminiscent to its prior responses to previous oil crises. Most notably, 1986, but really you could look at 1982-1983, as well as the Asian economic crisis of the late 1990s, and again in 2008.

These were all periods in time when the Iranians have been forced to respond to sudden changes, negative changes, in their oil revenues in a way that has forced them to either engage constructively on a couple of occasions with their neighbors, and there I would point to the Asian economic crisis and even 2008 as periods where there was at least some cooperative management between the Iranians and the Saudi's, or in other cases engage in much more combative fashion with their neighbors, and there I would point to 1986.

In some respects, I think that is a very worrying parallel. The Iranians saw that crisis, which also had an enormous impact, devastating impact on their bottom line, as one that was driven by the Saudi's as an attempt to drive Iran out of Iraq and ensure that Iran lost the war against Saddam Hussein, and in fact, it contributed at least briefly to an intensification of Iran's commitment to that conflict and in many ways to a number of other negative regional trends for peace and stability in the region.

At this point I think there are a couple of positive notes from the Iranians. One is there is a lot of things the Iranians can and are doing in order to try to mitigate the damage to their own economy. I would say they publicly and dramatically announced a change in the budget basis.

Iran's budget cycle runs around the March calendar year. The budget that was originally submitted last fall was based on a \$72 a barrel oil price and in January the Economics Minister announced that would be changed to \$40 a barrel.

I think this implies a level of realism. If you look at the structure of the budget, if you look at some of the decisions the Rouhani government has been attempting to put forward, whether it is increasing taxes, cutting spending, these are all realistic responses to an economic crisis.

Let me just skip to the bottom line, knowing that we have a relatively short amount of time here. I think the question for many in Washington is will the oil price drop force Iran to capitulate on the nuclear issue.

I think as we have seen to date, economic pressure has helped to change the tenor of the conversation between Iran and the international community on its nuclear program, but it hasn't brought us to a resolution.

I think we will see a similar trend with respect to the drop in oil prices, which is to say it has an impact on Iranian thinking and Iran's world view, and we know

from some of these past crises that Iran has in fact made decisions to end major conflicts as a result of financial pressure, and there I would point to the decision in 1988 to accept a cease fire with Iraq despite prior assurances that would never happen.

What I think is most reassuring about the situation in Iran today, a sole point of optimism perhaps in a talk that is relatively down beat on Iran's current economic conditions and likely responses to the crisis, is that we are seeing a much quicker debate, a much quicker and more intense debate about the implications of these oil prices and what it means for Iran's foreign policy, and we are seeing it come from very influential positions, most notably from the President, Hassan Rouhani, who has been out in a very forceful and public way suggesting that in fact Iran's foreign policy and its domestic politics can no longer be run on the back of its economy, can't use the economy to subsidize bad foreign policy.

That is effectively what he told a conference earlier this month. He also says in a very public way that Iran can't grow without engagement with the world. All of this has been refuted in an equally public fashion by the Supreme Leader, who of course has the decision making authority over the nuclear issue.

It does contrast quite significantly with the level of debate that we saw in the 1980s where at least at the moment where the oil prices fell the sharpest, no one was willing to go to then Ayatollah Khomeini and say it's time to end the war.

Today, we have at least the President of Iran and many within the system who are willing to say in a fairly public fashion that we need to alter our foreign policy in order to address this economic crisis. I think that gives me some expectation that while I don't think we will see a sort of political framework by March, I don't even think we will see a comprehensive deal by the July deadline that has been put forward now, that there is a set of individuals in the Iranian leadership who are prepared to end

this crisis and the oil price fall as well as the sanctions have played a major role in that.

Thanks.

MR. BOERSMA: Thank you. Thanks very much. We will continue going to Harold to see whether the bid of Venezuela in this competition that Suzanne was alluding to can viably run.

MR. TRINKUNAS: Thank you again, Tim and Charlie, for organizing this very interesting event.

I think it will be hard to tell which one of these countries is worse off as a result of this crisis, but one thing I would say just to start off is unlike what you just described of Iran, I think one of the worrying things about Venezuela is that its leadership has shown a notable lack of realism in the proposals it has developed to respond to the present crisis.

What I am going to do is take a few minutes to talk about Venezuela's situation as an oil producer, why the price drop has been catastrophic for it, and then talk a little bit about how President Maduro has responded to the crisis and what the prospects are for Venezuela going forward.

Venezuela produces about 2.5 million barrels per day, a level of production that has been dropping steadily but slowly over the past 15 years from a high of about 3 to 3.1 million barrels back in 1998.

However, Venezuela does have the largest proven reserves of oil in the world, if you include its ultra heavy Orinoco Belt of production, possible reserves.

Venezuelan oil does tend to be heavy and sour, which tends to raise the cost of production and makes it a less attractive product, so even as we are looking today at oil prices, as Charlie was saying, possible as low as \$35 or \$40 a barrel, we have to keep in mind that Venezuela's oil sells typically for \$5 or \$8 less than that. Even today,

Venezuela's oil has been commercialized around \$40 a barrel or \$39.5 a barrel.

For Venezuela, we have to keep in mind that even before the drop in the price of oil from where it was, over \$100 last year, to about \$39.5 today for Venezuela, its economy was already in trouble.

In 2013, it already had the highest rate of inflation in the world at over 50 percent. There was notable scarcity in terms of availability of super products. This is when presumably the books were meeting on a more regular basis than they are today.

Oil prices at the present level are really a disaster for Venezuela because this is a country which derives over 95 percent of its foreign exchange earnings -- over 95 percent in the sale of oil. It is a country that imports over 70 percent of consumer products, including food.

Dropping the price of oil has an immediate impact on Venezuela's ability to supply basic necessities for its citizens.

Just to put this in perspective for you, every dollar the price of oil drops, Venezuela loses \$775 million of earnings per year. From \$100 to \$40, that has really been a considerable loss in income.

The other thing is, just doing a very cursory check, so I'm not absolutely sure about this, Venezuela has among the lowest foreign exchange reserves of any major oil producer, down around \$22.5 billion. Keeping in mind most of that is actually held in gold, so it is not particularly liquid.

That is really not only a remarkably low level, but it means it doesn't have much of a cushion to fall back on during this period of low oil prices.

Let me turn now to talking about how the Venezuelan administration has responded to the oil crisis. Basically, President Maduro last month in January undertook a global tour with two aims. First, he wanted to coordinate with major OPEC and non-

OPEC oil producers to see if there could be a coordinated action to raise the price of oil. The other thing was seeking additional resources in the form of loans to help tide Venezuela and the Maduro administration through this crisis.

Despite visiting China, Russia twice, Qatar, Iran, Algeria, he failed on both counts. I am very doubtful that any sort of coordination among the major OPEC producers would produce a rise in the price of oil, especially considering the structural conditions Charlie has described.

We also know that despite the announcement that President Maduro made about receiving additional funding from China, Russia, and Qatar, this at best consisted of promises of future investments by these countries in Venezuela, and in fact the \$20 billion or so that he announced in China looks like just a re-announcement of deals that have been promised in 2010 but not fulfilled.

It doesn't look like they were able to come up with financing to cover the gap. Folks who have looked at this more closely than I have suggest that Venezuela basically will be short, around \$8 or \$9 billion in earnings this year at \$45 oil, and obviously, they are somewhat below that now.

What can the Maduro administration do? Where else can it go for money? Basically, their credit rating has just been downgraded again. It's practically junk. The markets are pricing the likelihood of Venezuela defaulting on its international bonds near 100 percent by next year, so it is very difficult for Venezuela to go to traditional capital markets to raise additional money to tide it through this period of low oil prices.

The Chinese, as I mentioned, have not been particularly forthcoming. They already have loaned Venezuela over \$40 billion, which is being repaid by shipments of Venezuelan oil.

I thought it was very interesting that even though President Maduro announced he had received \$20 billion in promise investments from the Chinese, the Chinese have refused to confirm any figures. They have not backed up that announcement when they were asked directly at the Foreign Ministry, the Foreign Ministry spokesman was extremely evasive and avoided making any specific numbers.

The Chinese do not appear to have been forthcoming. There is talk that the Chinese had offered to buy some of the Venezuelan heavy industries in south of the country, steel and aluminum industries. The Maduro administration so far has not agreed to that.

The Venezuelans are basically starting to take actions that look increasingly unusual to raise additional money. They have taken some of the debt that is owed to them by the Caribbean Island Nations and started to monetize it.

In fact, they basically sold off the debt that the Dominican Republic owes them of about \$4 billion for about \$0.48 cents on the dollar, which is a great deal for the Dominican Republic, and the Maduro administration got \$1.9 billion for this, and there are some rumors they may try to do this with Jamaica, which is another major creditor of Venezuela.

They are in talks now to see if they can issue bonds through CITGO. CITGO is an U.S. based oil company that is 100 percent owned by Venezuela. Venezuela's credit rating is so bad they are trying to use CITGO's credit rating to issue \$2.5 billion in loans, and then issue an extraordinary dividend back to Venezuela using the money from that loan. It looks like they have to offer an over 10 percent interest rate to get any offers on that.

Clearly, this is great lengths Venezuela is going through to do this. What can Venezuela do if additional sources of money are not available? It also doesn't look

like there is any easy way to increase production. Business conditions in Venezuela have been bad for quite some time. International investors who are already there are not particularly eager to invest more, especially because of the existing arrangements which require the Venezuelan state own 60 percent of any new investment. The Venezuelan state doesn't have any money to put up its 60 percent of the investment. That has not been very productive.

There is a possibility they could take the 42 percent of Venezuela's oil production that is sort of placed or allocated on a non-market basis, either repaying the Chinese loans or sent to the Caribbean Island Nations, including Cuba, or through domestic consumption.

Venezuela's gasoline is one of the cheapest in the world. Try to reallocate that. There is some talk of raising the price of gas in Venezuela from about two cents a gallon to somewhere higher than that. That is another possibility.

Of course, the other alternative is to cut spending. We are looking at a situation where a country that already has very high levels of scarcity, inflation, 25 percent fiscal deficit, is looking to try to get control over a sprawling array of nationalized industries and state bureaucracies and social programs that have growth exponentially during the past 15 years. I think that is really going to be a tough task for this government going forward.

I'm not very optimistic about Venezuela's ability to manage the present crisis, and the government has not really announced very clear plans of how to respond other than to say they will consider raising the price of gasoline, they will consider adjusting the official exchange rate so it closes the gap between an exchange rate of 6.3 to the dollar and the black market of 180 to the dollar, which is really an enormous gap, so they will try to do something about that. The third thing is their plan to go after the

distributors, because they believe there is an economic war being waged against them.

In fact, just over the weekend, the owners of two of the largest equivalents of like Walgreens or CVS, two of the largest sort of pharmaceutical distribution retail networks, were detained by the Secret Police in Venezuela. They have definitely started on that part of the campaign already.

I will stop there.

MR. BOERSMA: Thanks very much, Harold. We will turn to Cliff to hear what some of the effects of the falling oil price are in Russia.

MR. GADDY: Very good. I always like to think of Russia as being a special case, but when I listened to Suzanne and Harold, I realized not everything is so special, but I think there still are some things. Of course, these two countries aren't involved in a war in the Ukraine, and under those kinds of sanctions for that reason, this is important.

Russia is hit at this point simultaneously by the sanctions, the western sanctions against its economy and its financial system, and the oil price. Of course, the sanctions began earlier. It is important to look at that chronology.

At this point, it is very difficult to separate the effects of the lower oil price, the collapse in oil price, and what are the effects of the sanctions. Yet, it is not really important to do that separation, I think, because you just have to see they are together. They have been together from the beginning in a way, oil and gas and the sanctions.

You remember that the sanctions from the very beginning targeted in part Russia's oil sector, not initially the gas sector, but the oil sector, banning all western investment in Russia's Arctic and offshore parts of its oil production. The idea there was to make that difficult if not impossible, and to feel economic pressure from that front, and

that remains.

Of course, probably even more significant in a broader picture of Russia's oil sector is the financial sanctions, and I think we have to realize these sanctions have really been damaging to Russia, not so much because of the literal letter of the law, but because of the climate it has created for all investors.

The typical term that is used by western investors is "Russia is radioactive." You don't know exactly how the rules are going to be enforced, you are a western bank or Western industrialist. You don't know how these rules are going to be enforced. You don't know whether they will be extended and deepened.

To play it safe, you just stay away from Russia. You just don't touch it. That has had huge consequences for everything in Russia but among others, the energy sector.

Charlie is right. Russia's own oil production which is really governed by its government, by the Putin administration, will continue to produce and continue to invest in order to continue to produce and try to find ways to do it.

There are limitations that the sanctions have affected because of technology and so on, but they tend to be more longer term. In the immediate short term, not so much, and the oil sector is strategic. The oil and gas sectors are strategic. They will be given priority. Everything will be done to try to protect them as much as possible.

International corporations involved in Russia, not that many maybe, but important ones have had a wait and see a wait and see attitude, trying to protect their interests there. They don't again dare to do certain things that they might otherwise do without hesitation, but they are not just running and pulling out.

Russia's oil sector in all respects has a lot of momentum, it is like a big

super tanker, very difficult to speed up, very difficult to slow down. It's not that marginal producers that are in and out. Russia's oil output will remain very steady likely for quite a while.

That is in high contrast, however, to the other aspects of the effect of the oil price collapse on Russia's economy. Let me get to that. Obviously, Russia can't influence the world price of oil, so forget it, they haven't even tried to do that. They have to cope with it. They have to figure out how they are going to mitigate the effects on the economy and society.

As a whole, measured by macro indicators, with the exception really of this notorious case of the ruble exchange rate, which I will get to in a minute, you don't yet see major effects of the oil crisis in Russia. It has just been too brief so far.

Industrial production is not plummeting the way it did in the historical incidence that is most comparable, which is 2008-2009, when the oil price went from \$140 a barrel to \$40 a barrel within a few months. We are looking at maybe something close to that right now.

Russia's GDP in the year following collapsed by eight percent. It was next to the Ukraine. It was the largest collapse of any major industrial country anywhere. Of course, Russia had a booming economy before that. If you even it out, it's a little more understandable.

I would expect that if oil stays on average in 2015 at \$50 a barrel, Russia might well see a GDP drop of up to eight percent in 2015. That is typically not what people are projecting, quite that big, but most everybody agrees there is going to be a shrinkage in 2015.

Much more important, and this is what I want to talk about, we hear and we look at and we would see in a Western European or North American country -- we

can translate almost immediately a GDP growth or decline into how that affects people's living standards, sectors of the economy and everything.

This is not the case in Russia, and it is especially not the case now. You have a government which its own mission in effect is to figure out how to allocate the shrinking oil and gas rents, the value from the oil and gas, in ways that meets its priorities. Its priorities are very clear.

Its priorities are survival of the nation and the regime, security, both in the traditional national and military sense and in other respects, social stability, which is part of security. They are all sort of together, and sovereignty, very much an acute issue for Russia, an ability to pay back, not be beholden to foreign lenders. There are four or five of them, but I like to talk about them as survival, sovereignty, security, social stability.

Those are the priorities, and that is the way the system will be managed. In effect, what you have, and this has been the case not only in Putin's Russia but in pretty much every preceding regime in Russia and the Soviet Union, as long as oil and gas have been so important for that economy across the board, much more than in the openly measured ways, it is all about managing those rents, who gets them and for what uses and what priorities.

Russia is very dependent on oil in many informal ways that you can't really see by looking at say the oil sector's GDP share or something like that, or the share of exports or share of even budget revenues.

What in the long term, first, I want to look at the big picture, the long term effects of low oil prices, Charlie telling us it could last quite a long time, what would be the long term effects on Russia. Then I want to get to the immediate effects on what is going on.

I will conclude with a comment about probably what everybody cares

most about, which is is it going to change Putin's behavior in Ukraine, his foreign policy.

I think this crisis, this particular oil price collapse, may well have a very salutatory effect for Russia's long term economic policy. We will see. There is a fascinating debate going on inside Russia right now. I have never seen quite so many opposing views by really competent people talking about how Russia needs to organize itself in the future.

Don't be mistaken. There are very few people, serious people, who talk about the answer being diversification, the answer being oh, it's really simple, we are too dependent on oil, we should get rid of our oil dependency and develop non-oil based manufacturing or other sectors of the economy. Smart people realize you don't even waste time talking about that. That is never going to happen in anybody's lifetime.

You have to talk about how you are going to manage that sector and in particular, how are you going to manage the revenues from the sector. It is now possible for the Russians to step back and look at the volatility of the rents they were earning from oil and gas as the price went up and down since the 1990s and even into the 1980s, and ask themselves what would have been the smart thing to do.

Well, they did some smart things, namely creating their sovereign wealth funds, their oil reserves. What some people have been saying all along now more people are beginning to realize, we created huge reserves.

They were up at a peak of \$600 billion before the 2008-2009 crisis. They are down around \$400 billion. They are still enormous compared to most any other country in the world, and has served them very well in the previous crisis of 2008-2009, and certainly are serving them well now.

People are beginning to realize we should have saved even more and perhaps should have projected an average of \$60 a barrel of oil over this whole period,

and just had iron discipline and force ourselves to live at that level, we would have managed it. That would have meant having oil sovereign wealth funds of about \$1 trillion.

It's not an order of magnitude bigger than the 500 to \$600 billion they had, but that is the kind of thinking. If we make it past this one, we have to think about doing things differently for the long term in the future.

Russia is not going to be a high growth economy. Let's also dispel ourselves of that elusion. There is no magic bullet for Russia. It is not going to be able to find all kinds of sources of high growth that it had during the high boom oil years.

It has some advantages. It certainly does. It also has some real disadvantages, the legacy of the way it has structured its economy and its economic geography during the Soviet period, and on balance, looking at historical comparisons with other countries over many, many cases and many years, I would say Russia could expect if it did things reasonably well to have a growth rate that averaged about one or two percent a year for long term. Of course, it will be high years and low years and negative years. I'm talking about net balancing out.

It is just good to have that reality. Again, there are people who are starting to think in those terms in Russia in the wake of this crisis.

Now, that is for the longer term. For the current term, this is a real crisis mode in Russia. It is a situation in which the budget is being revised almost daily, and I'm not kidding. That is conscious. That is the plan. Don't make any commitments at this point, even for the whole year of 2015, because we have no idea, as Charlie so eloquently said.

The uncertainty has never been this great about what is going to happen, how far down the oil price will go and how long it will stay down and how high it might

ever go back up again.

The tone has changed tremendously in Russia. I was in Russia in late October. I was in meetings including Putin but also some of his top people both on the economic side and otherwise. That, of course, is where the oil price started to go down, and maybe it was about in the middle of where it is down now, but there was still a sense it's probably not going to last, it's going to go back up.

They had coped pretty well with sanctions they thought. There was a lot of complaisance and even sort of a belligerent tone. That has changed completely. Now, it is lowering expectations for the population, talking about how bad things are and how bad things may become.

Last week, a so-called "anti-crisis plan" was drawn up. It has been discussed daily, in fact, multiple times a day since then in the sense of trying to figure out what about this plan. This is a plan of 38 pages, 60 points, all of which were supposed to be priorities. Well, you can't have 60 priorities.

You have to figure out what is really the priority. My sense is this is exactly what this exercise was all about. It was this is contingency planning, we have to figure out how we adapt and adjust. We will set overall priorities but they will be very general priorities.

They will be the kind of priorities I just mentioned, all these S's, security, stability, sovereignty, and so forth. How we get that, what particular measures will help us serve those ends is a different question.

In this particular plan, in the preamble, it mentions several things that are important. It mentions macroeconomic stability. These guys are such Tea Party-ics over there. They are going to maintain budget balance to the extent they can. They are watching every aspect of that. They will meet their foreign obligations. There is no

question that Russia will pay back debts.

Other priorities will include defense spending, social spending, and then some token stuff about small and medium sized enterprises, I don't take that all that seriously because there is no real way to measure that.

Defense spending is really key. Defense spending, there was an enormous plan adopted over the past couple of years in Russia, and at the time, at the previous exchange rate, it was about \$750 billion over 10 years.

That is obviously partly about making weapons. It is not. It is mainly about making jobs. It is making jobs in big, old, dinosaur Soviet styled plants out there in Western Siberia employing tens of thousands of workers. You have to keep those people happy, and others will sort of get on that gravy train for these defense orders.

Russia's defense establishment doesn't really need all that much money to do what they have been doing in Ukraine, you just need little green men that are extremely well equipped and well trained, and then you have to have a bunch of nuclear weapons that means nobody messes with you otherwise. Everything in between is just like the fluff that is needed to provide those jobs.

This is being taken very seriously as they are tightening down the way the money is being spent, who gets it. They are going to crush anybody who dares to start stealing some of that money. It is going to be kind of scary stuff going on with anticorruption drives.

Otherwise, the descriptions that Suzanne gave about the seriousness with which they are dealing with the budget, cutting spending. They will use some of the reserves.

The last thing I want to mention, because people don't always get this but I think someone else might have mentioned it in another context, the devaluation of

the ruble. This is a big difference from 2008 and 2009.

The ruble has fallen, its value has plummeted by half. The government has just decided they are not going to support the ruble. This by the way is due to the oil price more than the sanctions. Nothing big happened with the ruble during all the sanctions. It is the oil price.

They have just decided let it go because we need to keep those reserves. We don't want to spend that money. This is a strategic thing.

All of this, to answer my last question I wanted to address, is are the oil price collapse or the sanctions going to cause Putin to change his behavior. The oil price doesn't work like sanctions do because we say sanctions, if you behave right, we will take away the sanctions. We can't say if you behave right, we will raise the oil price. We don't have that ability.

Why would he change anything about that? Only if somehow the oil price made Russia so incredibly weak they couldn't do anything, but I think I'm trying to make the case that is not going to happen.

In fact, I think there is not going to be any effect of all of this on Putin's behavior. I don't think it will particularly push him one way or the other. It is important to look at what is happening domestically and follow this discussion and debate but as far as foreign policy is concerned, it is not going to have an impact.

MR. BOERSMA: Thanks, Cliff, much appreciate it, all four of you, thanks for your presentations.

Before I turn to the audience, we have about 40 minutes for debate. I want to ask a question. Charlie, would you mind talking a little bit about the role of OPEC? You touched upon it briefly.

The OPEC countries, led I guess by Saudi Arabia, EUA, Kuwait,

basically taking the position we cannot control prices in the current market constellation. By cutting production, non-OPEC producers will fill up the gap and we will just lose market share.

Assuming that is right, first of all, your comments will be appreciated, if we look ahead to the future, if prices rebound a little, unconventional production is gradually, I guess, going to spread out around the world, what does that mean for the role of OPEC going forward?

MR. EBINGER: Well, OPEC, you have to differentiate I think between the members of OPEC. There are people who are saying this shows the demise of OPEC, the current prices, I think they are dead wrong.

If you take the Saudi's, the Emirates, Kuwaiti's, the Qatari's, Qatari's, of course, much more in terms of natural gas, they clearly control the world price of oil if they wish to, because they are the low cost producers, and there is almost no one else who can challenge them. They also have the advantage of having huge sovereign wealth funds so they can weather these prices.

I know people say the Saudi's need \$90 or \$100 oil, not only for their own development needs but for what they pay to various groups throughout the world, including Pakistan. The reality is they can win this battle if we got in a real price war.

I think you are going to see those countries continuing to dominate the market until, of course, if we can get Iraq and Iran stabilized and in the case -- both countries but particularly Iran, and if we have five to ten years of real western investment allowed to go in, of course, the dynamics change dramatically because then I think Iran and Iraq become key players in that market.

The Venezuela's, Angola's, and others are important but they are also high cost producers. Indeed, as fast as Angola, for example, has been growing, it is only

growing at this point because of investments already underway. Most people think that Angola needs \$60 to \$70 a barrel to continue what has been a very dramatic increase. Angola actually produces more oil than Kuwait, a great unknown fact to many people.

I don't think OPEC is dead at all. On the other hand, you have non-OPEC supply which we have continued before the current price collapse. We have continued systematically to underestimate the EIA, the IEA has already underestimated non-OPEC supply growth, and of course, we also have North America.

The big question mark is if we were to get prices say above \$60 a barrel, and believed that was sustainable, then I believe we would see continued dynamic growth in North America, and until we see a rejuvenation of supply, that would simply create, I think, a new price shock.

You cannot add additional supply in this market unless you have tremendous growth and demand without forcing the price down. That is why the whole debate about crude oil exports, except among the die hard's in the industry, has largely gone silent, because they realize if we lifted the ban on crude oil and actually put another million or two, we would see the price go down.

A convoluted answer to your question, but OPEC is alive and well.

(Laughter)

MR. BOERSMA: Thank you. I will turn to the audience. We have microphones, I think. If you ask a question, please state your name and affiliation. I would encourage you to ask questions and discourage you from extensive comments so we can accommodate as many people as possible.

The gentlemen here in the front, please.

MR. LUXTON: Larry Luxton, News Editor of the Washington Diplomat. This question is for Harold. Given Venezuela's dire economic straits, what will happen

with its subsidized oil shipments to Cuba and with the entire Petro Caribe arrangement that has kept so many economies, not just in the Caribbean but in Central America afloat as well, and more to the point, what does that mean for U.S. policy makers going forward? Thank you.

MR. TRINKUNAS: Thank you for the question. Petro Caribe is a program by which Venezuela has provided subsidized financing for shipments of oil to about 17 Caribbean and Central American countries.

One thing to keep in mind about Petro Caribe is as the price of oil falls, the amount of subsidy falls as well. Present rates, the Central American countries and Caribbean countries would be able to purchase oil from Venezuela and finance about 30 percent of the purchase cost over the long term.

Back when oil was over \$100 a barrel, the amount you could finance was between 50 and 60 percent. Clearly, one implication of the falling price of oil is that the unsubsidized price of oil today is lower than the subsidized up front cost for purchasing Venezuela was two years ago.

The Central American and Caribbean nations that were part of Petro Caribe were able to afford oil back then, so I really don't see the fall in the price of oil today as being a major issue for Petro Caribe countries. They can find alternatives.

There are some things about these being particularly small countries that have trouble getting deliveries and so forth, but these are at the margins, issues at the margins.

Cuba is a special case because Cuba also refines oil it gets from Venezuela and re-exports it. Presumably, this would have an impact on some of Cuba's foreign exchange earnings potential. It's hard to tell how much that is because some of the things it actually re-exports, it actually re-exports to other Petro Caribe countries.

One of the things I have argued, actually with a colleague of mine, Ted Piccone, argued in a paper last summer was that in fact Venezuela's economic troubles would probably drive Cuba to look at reevaluating its international relations, including getting closer to the United States.

We think this is one of the explanations for U.S./Cuba, the Cubans are realizing they have to diversify their international economic relations.

MR. LUXTON: Thank you.

MR. BOERSMA: The gentleman there in the aisle.

KAMAR: My name is Kamar. My question is there is a lot of negative effects on economies of the oil exporting countries, and I wanted to know in the case of Venezuela, do you see any possibility of IMF intervening in the whole situation and controlling the downward slide of oil prices.

MR. TRINKUNAS: Venezuela, I think, broke off relations with IMF. I believe it was in 2007. What does that really mean? It just means the IMF has not been conducting regular visits or regular validations.

That said, the Venezuelan leadership has said over and over again they will never go to the IMF for bail out, it basically would be a counter revolutionary policy solution for the Venezuelan government, and they have rejected it out of hand.

In fact, the Venezuelan opposition has also criticized the government for not because it won't go to the IMF, because of the prospect that it might resort to something like a structural adjustment mechanism. For tactical reasons, they want the current administration to take on the political costs of any economic changes that might happen.

I agree with you that the IMF is the organization with sort of the mission and the funding and expertise to help countries in the kinds of economic straits

Venezuela is in right now, but the domestic politics of that makes that unlikely for now.

QUESTIONER: Thank you very much. (Inaudible) I would like to ask what do you think would be the impact of this drop in oil price or energy costs in general on the investments in renewable energy, do you see worldwide a trend in this sector of investments for the future? Thank you.

MR. BOERSMA: Charlie, do you want to take that on?

MR. EBINGER: Good question. I don't think it will have that much impact on renewable energy investments because I think the growth in the market is (a) projected to be overwhelming in Asia, and (b) projected to be overwhelming in transportation fuel demand.

I do think there is the prospect that lower gasoline prices, at least in the United States, may have some slow down impact on how much we move towards the development of electric cars. Again, the electric cars are such a small percentage right now, I don't think it will be a marginal thing.

I wouldn't anticipate that it has a tremendous impact in the power sector. I think as in many places in the power sector, it is not so much oil competing against renewables in the United States. It is more gas competing against renewables. Elsewhere in the world, it is more coal competing with renewables.

The price of coal globally right now are at levels that we haven't seen in many, many years, and I think it will be the biggest detriment against renewals in a lot of power markets minus, you know, countries that have some kind of carbon tax or something discouraging fossil fuel use.

MR. BOERSMA: Thank you.

QUESTIONER: This is a question for Cliff. You know, if you think about Russia, Putin has a lot of control but there are all these interest groups. There must be

concern over middle class consumers, and do you see long term a low oil price scenario generating economic reforms in Russia at all?

A lot of the subsidies are going to be harder to keep going. I am just wondering what those forces and how the competing groups might settle things.

MR. GADDY: That is a great question because I have been trying to formulate in my own mind on the basis of these debates that are going on, they are very open -- I want to give you an idea, just not directly related to your question but what plays out.

Last week, this 60 point plan I talked about was laid out. Almost all of the items didn't have a price tag attached to them. There were some that had these enormous price tags. Some of them probably wouldn't have cost anything directly, they would be opportunity costs, but not directly.

Anyhow, the government says to its ministers, the two economic ministers, the Finance Ministry and the Ministry of Economic Development, they need to go home and figure out how much all this was going to cost. Start off with just what it is going to cost in the rest of the first quarter, we have already finished one month. You have February and March, what it is going to cost.

The Ministry of Economic Development comes back and says it is going to cost 656 billion rubles. Okay. Ministry of Economy, what do you say? It is going to cost 10. That's all you are going to get. (Laughter) There were all kinds of reasons, partly because you couldn't spend some of this money because the laws don't allow it, you would have to change the laws. Very technocratic kind of stuff.

This is the level at which it is, you have these hard, unbelievably hard line people in the Finance Ministry that follow their mentor, their patron, Alexei Kudrin, who is no longer formally in the government, but he is a key advisor to Putin, and is a real

hard liner, and then the Ministry of Economic Development which sort of thinks more in sort of traditional Soviet terms to some extent.

The debate right now is maybe this is the opportunity to push through reforms because the argument by some people is that this is not just because of sanctions, it is not just because of the oil price, but it is also because our whole economy was stagnating, it was slowing down already before all of this.

That is true. 2013, the year 2013, everybody, inside Russia, outside Russia, IMF, World Bank, EBRD, Russian government, was predicting for percent growth or something like that for 2013. The figures turned out to be 1.3 percent, and it had just been on this secular decline after all the oil boom, despite \$100 a barrel oil.

Okay. What are we going to do about it? I think, however, what is going on now is a certain jockeying for a situation that has to come when the oil price goes back up. It has to go back. It has to start going back up for any possibility politically for there to be reforms in Russia.

The kind of reforms that Russia needs that would lead to any kind of marginal growth are disruptive, highly disruptive. You are not going to be able to do those in a situation in which you are very concerned about stability and when people are already suffering.

What now is being done is people staking out the path that needs to be taken if and when this immediate crisis is over, both the geopolitical crisis and the market crisis, and then thinking about how to do it in the future.

As I said, they are able to step back and talk about lessons learned from what happened in 2008-2009, lessons learned even about what happened now, trying to say what was good and what was bad about our oil policy independent and rent management given the sanctions, given the volatility of the oil markets.

Yes, these discussions about reforms will probably continue.

QUESTIONER: Thank you. My question is about the discovery of the oil, shale, in the U.S. I'm wondering if it just followed a natural process or was it somehow politically or tactically motivated. Thank you.

MR. EBINGER: I don't think it's politically or tactically motivated. I think it is classic market fundamentals. The shale gas and shale oil in the United States -- shale oil is relatively a high cost to produce. I do think the President in his State of Union Address is going down the road to be criticized because I think it's going to hit a lot harder in the United States economy than he even gave accomplishment to the prospect of.

I think it's very probable that we will see -- the estimates by the State of Texas already are 75,000 people out of work. They are estimating in the Bakken and adjoining counties numbers similar to that.

I just addressed on Thursday the Association of Western Oil Producers, kind of Wyoming, Colorado, Montana, part of the Bakken, Permian Basin people. They are estimating 150,000 people thrown out of work. When I say "thrown out of work," these aren't guys just drilling the oil rigs. These are the oil service companies making the parts and equipment.

Remember we are the center of the oil service industry, so as big capital projects collapse overseas, that throws thousands -- Slumberjay has already announced 9,000 people out of work. In these boom towns, all the ancillary industries, small businesses and large businesses that came to service these people, people driving the water trucks for the fracking.

This could be an economic crisis in the oil patch that I think could seriously drive down the U.S. economy and certainly not help the Democrats as they look

toward the unemployment numbers as we move into 2016.

I, for one, think we are vastly under estimating, particularly if I'm right and prices continue at least for a time on a further downward trend, it's a catastrophe in the State of Alaska, where 90/95 percent of the state's budget comes from oil or oil related activities, and the President closes off half of Alaska the other day for future oil and gas development, which basically dooms or seriously erodes the prospects of the TAPS pipeline remaining viable, because of not enough throughput.

I know as motorists, we probably all enjoy driving up to the pump and getting our cheap gas, and that is an important factor because that can be a stimulus, of course, to the economy if people spend that saved money at the pump on other goods and services. That could be a redeeming factor offsetting some of these negatives, but I don't think the verdict is in on this yet.

MS. MALONEY: I will just comment by way of comparison, if you look back to 1986 when the perception in places like Iran was at the time it was a Saudi conspiracy but a U.S./Saudi conspiracy, much the way the Iranians see it today.

Back in 1986, the U.S. was quite concerned about the economic impact on the domestic industry and in fact sent then Vice President George Bush out to try to importune the Saudi's to lower production, to have some kind of an effect on the price crash.

I think the complications of this are seen very differently depending on where you sit, and while we are here focused on kind of the impact on various countries, there is obviously a huge domestic impact that often other players aren't necessarily taking into account.

MR. BOERSMA: All the way in the back.

MR. CUFFER: Thank you. Jeff Cuffer. I was just wondering, as the

prices have gone down over the last few months, have you noticed any change in U.S. policy towards the countries that you have been talking about, Saudi Arabia, for that matter, and if prices stay low as many believe, do you anticipate any sort of significant changes in how the U.S. is dealing with the relevant countries?

MS. MALONEY: I don't think you can trace any significant shift in U.S. policy toward the region, toward the Middle East, if you want to think of that as sort of the central player in oil production outcomes, to this current price decline.

I think it certainly changes American options in dealing with the various crises, and obviously puts the Saudi's in some respects in a very prime position to have some influence over some of these debates.

With respect to Iran, let me just say that there is a lot of negative for Iran. The most significant negative for the Iranians is the price drop enables the American political system to debate the application of additional sanctions with slightly less concern about the implications for the global marketplace and by default, slightly less concern about how other players will react.

The concerns that we may not be able to sustain the current level of sanctions because of pressures from the oil markets are simply not present at this time, and it is in fact the sort of over supply issues that have enabled the very severe sanctions to take effect on Iran without having a blow back at the price we pay at the pump.

Although I am not an advocate of additional sanctions on Iran at this time, I do think that it is quite conceivable that you could take more Iranian exports off the market and not see a significant price rise in the global price of oil.

MR. EBINGER: The other two things that are happening that I think may not get enough attention is one, some people think a little blip upwards that we have seen in pricing -- there have been several factors said to account for that, one being threats by

ISIS to some Iraqi fields, but it also appears to be fairly massive stockpiling by the Chinese and to some extent the Indians, obviously buying oil while it's cheap, since oil is such a huge cost to their economies because they are overwhelmingly huge importers.

The two factors I did not mention further putting pressure on the downside, (a) the fact that it still appears although the data is mixed that a lot of hedge fund people are still short on oil, betting the price will go down, and a lot of people think when the price slide began, a lot of the reason it went so far so fast was the hedge fund guys had gone long, figuring prices, because of conflicts in the Middle East, were going to continue to go up, then the market turned against them and they had to dump a lot of oil on the market in a quick period of time.

The other issue that I don't think has got nearly enough attention is a lot of governments in the world finally have moved to either reduce or eliminate petroleum subsidies. You have had Indonesia bite a bullet after a long hard fight and really significantly raise prices, which of course means you won't have the same level of demand. India has taken a very difficult political decision and eliminated diesel fuel subsidies, which is very politically contentious, and begun to eliminate natural gas subsidies. Pakistan has done the same.

As these subsidies get removed, you know, that means there is going to be less demand in a lot of those countries. It's hard to quantify if it's a huge number, a small number, but it's a fact among all these other considerations we have said that is not good for petroleum prices staying up.

MR. BOERSMA: Thanks, Charlie. The gentleman right there.

MR. UNGER: Bob Unger, Brookings. Two questions. One, how long can the Administration resist higher oil prices or oil taxes, and two, we talked about potential stimulus and you kind of touched on China, how much of a stimulus is this

providing to the Chinese economy?

MR. EBINGER: There does appear in the Congress to some extent on a bipartisan basis to be serious talk about at least raising the gasoline tax. Whether they have the votes to do that or not, but for the first time you have heard a number of prominent Republicans not oppose that point of view. Of course, we haven't raised it for years. For any of you who are not familiar, this is how we fund our highway system. It is long overdue and needs to be done, but it remains to be seen.

I don't know on China what the numbers are in terms of what the stimulus might be.

MR. BOERSMA: Here in the front.

MR. CHAGAS: John Chagas. All these bad actors seem to be in pretty bad shape but we're not exactly getting the foreign policy response we want. If the White House were actually to ask John Kerry a year from now would you like to see the oil price be \$60, \$40, or \$30, what should John Kerry's response to that be? (Laughter)

MR. BOERSMA: Harold, do you want to start it off?

MR. TRINKUNAS: It's interesting that in fact the low price of oil in a sense has changed the balance in Latin America as a region in its relations with the United States because high oil prices funded Venezuelan diplomacy in the region.

The Petro Caribe organization I spoke about, its relationship with Cuba, which involves a large subsidy from Venezuela for the Cuban economy. Venezuela's relations with Ecuador, Bolivia, Nicaragua, other countries.

That whole group of barbarian countries, so-called, it has in a sense weakened their ability to influence political outcomes in the region. In this sense, a lower price of oil is a relatively good thing for the United States and the region, and we do see a few things happening in this area that shows the U.S. trying to improve relations.

With Cuba, although it is not related to the drop in the price of oil, after all those negotiations started over 18 months ago, does mean at the next summit in Panama in April there is going to be a better mood for U.S. relations in the region and the countries that have traditionally have been most opposed to U.S. policy will be in a weaker position because of not only the drop in oil prices but the general drop in commodity prices which has really undercut their ability to be diplomatically influential.

MS. MALONEY: I don't think you can come up with sort of an optimal price of oil with respect to U.S. interests in the Middle East because obviously the price fall hurts our adversaries like Iran, it doesn't necessarily make them more pliable at the negotiating table, it may in fact induce them to take risky and provocative steps in response.

The oil price drop also hurts our friends, many if not most of whom are very highly dependent on oil revenues. It hurts their ability to offset economic crises elsewhere. The Saudi's, of course, are a major provider of both resources and capital to a number of what we like to describe as moderate Arab states in the region.

The Saudi's, although I wouldn't put them in the moderate category, but are bankrolling in many respects the Egyptian economy as well.

To the extent that we see a continuing drop that has some impact on their ability to sustain those revenue streams, I think it obviously is going to create more complications for U.S. foreign policy. To the extent the price drop has an impact on the provision of subsidies and resources to some of these populations in the region like the Saudi's, as we saw in the 1980s, if it does begin to cut into entitlements for a large and young population in the Arabian Gulf, then I think some of the implications of the price drop in fact are going to be quite negative.

I don't think you can sort of pinpoint a number and say this is on balance,

hurts our adversaries sufficiently, helps our allies sufficiently. A lot will depend on how the different governments manage this crisis. Obviously, those Arab states in the Gulf that were relatively restrained in the way they managed the price hike over the prior decade are going to be in a better position to ride this out.

I think we are going to see some implications that we don't necessarily predict as we know in effect from our experience with this in the past.

MR. BOERSMA: Is there a magic number for President Putin to come back to the negotiations?

MR. GADDY: This is kind of the same question as the one about has it changed U.S. policy towards different countries based on the oil price collapse.

I would hope that by now we have learned that the oil price collapse is not a magic bullet against bad guys. That was an idle hope it seemed to me.

The real comparison one might try to draw is what happened to the Soviet Union, the conventional wisdom or common wisdom, that somehow the oil price collapse in the mid-1980s led to the collapse of the whole Soviet Union. The magnitude of the drop was actually quite similar in terms of percent and time it took to do it.

The Soviet Union, there was a case in which maybe more like Iran or Venezuela, a lot of the revenues were being used to subsidize their clients and bad guys around, wouldn't have the money to do that. Russia doesn't do that. This is a fundamental principle of Putin, he said that was a stupid mistake by the Soviet Union to go around spending our money on other people and supporting the Soviet empire, we won't do that.

It is all Russia first, and therefore, that doesn't really work, there is not very much if any of Russia's wealth that is being used to subsidize anybody anywhere else, except Eastern Ukraine, which is totally supported by Russian oil and gas subsidies

basically.

As Harold and Suzanne have explained, there are just too many other complicating factors. I guess it depends on whether we think this John Kerry we are talking about is only looking narrowly at one particular case and disregarding everything Charlie said about the effects on the domestic economy and therefore our ability to conduct foreign policy. I hope they are not quite that shortsighted and narrow minded.

MR. EBINGER: Clearly, any of those prices, \$40, \$50, \$60 are very important for some of our strongest allies. It clearly helps the Japanese. It clearly helps the South Koreans. If we put China on that continuum, China clearly benefits from the prices they were paying. India, a country we are trying to build relations with. Brazil. It might actually make the Nigerians finally have some transparency and actually run their economy instead of ripping it all off like they do.

On the other hand, it's a mixed bag for producers. I was just looking at some quick figures here. We can take these with a grain of salt. We are at about a 93 million barrel a day oil market today. The EIA still predicts a 119 million barrel market by 2040. Where the devil is that oil going to come from if we have prices at \$40, \$50, or \$60.

OPEC itself has numbers even higher than that.

At some point in time, you have to have the price that still allows people to go into frontier regions to look for oil and gas, unless you just believe we are in such a structural transformation that these numbers are just pie in the sky.

MR. BOERSMA: Time for another.

MS. PARLOW: I'm Anita Parlow, recently with Harvard MIT Arctic Fisheries Project. I wonder given the comments in terms of structural shifts with respect to Russia, when we kind of emerge out of this in terms of sanctions presumably, and

possibly price, are we going to see a Russia more connected to China and Asia in terms of development and supply, and if so, and even if not so, what might there be as implications in terms of U.S. jobs and economy?

MR. GADDY: I think there is no question that one of the effects of the crisis in the Ukraine more than the oil price collapse has been Russia looking more seriously in its relationships with China in particular and Asia in general.

It's just a way of hedging your bets and diversifying, is this something permanent, irreversible. That is not necessarily the case but there is a certain effect momentum you create.

I don't particularly expect it to be a dramatic one, barring a really intense crisis with Russia and a military confrontation with Russia that could just change everything we have been talking about.

What the effect of that would be on U.S. jobs and the U.S. economy, I'm not sure there would be any great effect. I'd have to think more about what possible ways.

It's very difficult for Russia, anything Russia does to affect the U.S. economy in that way more than creating a nuclear war or something, but in terms of its economic behavior, again, Russia is not a producer of oil and gas that can quickly turn it off and on and affect the world market. It is a free rider on OPEC or it was when they were keeping the prices high, they were a free rider for a long time. Now they are whatever the opposite of a free rider is, suffering collateral damage, and can't do anything about it.

Yes, Russia turns more to the East. It has deeper relations and more diversified relations with countries in Asia, but not so easy to see how that would have a direct impact on U.S. economy and U.S. jobs.

MR. BOERSMA: Thanks. We will take one more question, the

gentleman over here, please.

MR. HONG: Thanks. My question is we have seen reports that the rig numbers have declined in the U.S. very quickly due to the price plummet. I want to know if the price continues to go down, how much impact toward the U.S.

The second question is as the oil price comes down, for most of the economies, the U.S., China, Japan or Germany, it is bad news, so those economies may benefit from the oil prices, how much they will support the oil prices because their economy may improve on the low priced oil? Thanks.

MR. EBINGER: On the first question of the rig count, I think you have to be very careful. If you count the number of surface rigs, when they go down into the ground, some of those are one, two, seven, eight, nine, 10 lateral rigs.

You have to look as you hear the rig count is coming down, which rigs are coming, and chances are the ones that are coming off are the ones that are least productive. They are not probably the ones producing at what we call the "sweet spot" of these shale plays where the highest volume production is. I would just caution you that the rig count needs to be looked at carefully.

If what you are hinting at is any kind of Government intervention because of the lower price of oil, I think that is what you were hinting at, we are not going to see any intervention at least in the United States on behalf of the petroleum industry.

The fact that this week we were having debates about how we need to cut the fossil fuel subsidies, so this Administration is doing nothing for the fossil fuel industry. Congress may try, but the President will probably veto. (Laughter)

MR. BOERSMA: Should it? Should the Government actually intervene into that?

MR. EBINGER: No.

MR. BOERSMA: Thanks. We can take one more. The lady in front, you have been very patient.

MS. RYAN: Thank you. I'm Margaret Ryan with Interfax Energy. Charlie, you mentioned the fact that when you are drilling in the shale, those wells can go on and off a lot faster than say something that is offshore.

I am wondering just pursuing the question here, is the U.S. oil industry poised to play a fundamentally different role than it ever has before? We have been through boom and bust before, but that was with conventional oil drilling, which took more time to come off and more time to come back on. Are we going to see a different pattern this time?

MR. EBINGER: I believe in North America, absolutely, we will. These wells, as you suggest, Margaret, can be turned off and brought back on in four to six weeks, from what I understand, and maybe sooner in some cases. It is a changed game as more of our production comes from shale as opposed to conventionals.

MR. BOERSMA: Thank you. We are close to 3:30. Since a couple of us need to go to other places soon after, I would like to leave it at this.

I want to thank you all for all your great questions and comments, and I would like to ask you to please join me in thanking our four speakers and our great staff for making this possible. (Applause) Thank you.

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