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C. Robertson:

Ladies and gentlemen, thank you very much for attending our forum. We have an excellent panel here. If I can introduce myself first, I am Charlie Robertson. I am the Chief Economist at Russia's emerging market bank, Renaissance Capital. We have the honour of His Excellency Mr. H.E. S.M.F. Al Mazrouei, the Energy Minister from the UAE, and he is going to help us understand the oil markets and how they look from the supply side. We have Dr. Fan Gang, Chinese expert, Advisor to the Central Bank, and, given that China is probably the big question mark for the global economy today, it is very helpful to have you here with us as well. We have Daniel Jaeggi, who has flown in from Switzerland, Head of Mercuria Trading and an expert on commodity markets. And then, of course, Oleg Deripaska, General Director of RUSAL, CEO, and perhaps one of the most important people in aluminium, among other products, in the world.

Firstly, I am going to talk through how GDP has changed. These are IMF numbers, and they show that the global economy in 1980 was about USD 10trillion. By 2019, it will be nearly USD 100 trillion. The big change happened around 2002 to 2003, when the G7 continued to grow, but the bulk of the growth in the world economy came from the rest of the world. The G7 was two-thirds of the world economy in 2003; it is now about 47%. This is very much a China-led story, and it has not finished. If we look at urbanization, China is at a little over 50%, with well over a billion people, and India at about 30%, with well over a billion people. There is still urbanization to come. There is still demand for copper and for steel, and we are also going to see that demand for things like cars.

I just caught up with some numbers recently: I think in India, there are 16 cars per 1,000 people, in China about 55 cars per 1,000 people, and in the West, in Europe, it is more like 500 or 600 per 1,000. I did a little bit of extra work: this is every country in the world with the per capita GDP along the bottom and car ownership per 1,000 people on the left-hand side. What is interesting is the big jump that happens between USD 0 and USD 20,000 per capita GDP, exactly

where China is now. So, if you have 65 million cars in China today, this is telling us that we should be expecting there to be 650 million cars on the roads in China in perhaps 10 years. The traffic jams in Beijing are going to get pretty bad! They are already pretty bad. There is a great book I read a few years ago called *Country Driving* by Peter Hessler. He leaves Beijing in the year 2002, drives around China, and discovers new cities that no one has heard of. When he did that in 2002, there were only 10 million cars in China. Today, China buys 10 million new cars every six months. It is an incredible change. India has maybe 20 million cars; again, I would think there are at least 650 million more to come.

That is going to make a huge difference in energy demand. On the left-hand side there, I am showing you the amount of oil consumed per capita since 1965. In Japan, they consumed about 6 barrels of oil per day per 1,000 people. In the US, it was over 20. Still, in India and China, they consume very little oil per person. If either China or India consumed as much oil as Japan in 1965, when Japan was a relatively poor country, then Chinese demand would be nearly 25 million barrels of oil a day, and India over 20. So the demand is definitely coming, but you can also see that sometimes the supply comes to meet it.

Let us take copper or aluminium. From 1980 through the 1990s, neither was rising as fast as global GDP. We began to see the price pick up dramatically because of a lack of supply. In aluminium, that began to catch up around 2011. There has been a fall in prices, partly due to the global financial crisis. Five to ten years later, most people still assume that commodity prices will be higher, but this is something I would like to learn more about from the panel.

This is perhaps my favourite chart about commodities. What I have done here is talked about the oil price. The black line is the most important one. What I have done is added the value of every barrel of oil consumed in the world at world prices and divided that by world GDP. What we see on the left-hand side, in the 1960s, is that the total value of all oil consumed in the world was about 1% of GDP. The 1960s was a pretty good time for Western economies. In 1973, you

had the Arab-Israeli War, and it jumped up to about 4%-4.5% of GDP. The Iranian Revolution in 1979 drove it up to 8% of GDP. At that point, the world went into recession. US unemployment hit 11%, the highest it has been since the 1930s, worse than the global financial crisis of a few years ago. The world went into recession, and commodities then went into a bear market for the next 30 years.

Today, it has come back up again. We are at about 4%-4.5% of GDP. I think that is manageable for the world economy. But what interests me is the supply response that comes when you see an oil price rise. What happened in 1973, when the oil price rose, was that it became economical to develop North Sea oil. It became economic to develop Alaska, and Mexico also discovered oil, and suddenly there was this new supply of energy that started to arrive in the world. At the same time as there was demand destruction, there was higher supply. That was a big reason why we saw that fall in prices through the 1980s and 90s. Today we have two issues. First has been the supply response from new aluminium production, new copper mines, new iron ore production in China, and new oilfields from Ghana to Kenya. Kazakhstan will eventually get Kashagan pumping oil, and when that happens, that is another million barrels of oil. Iraq thinks it could double oil, and we have things like shale gas, which has become economical at these higher prices and with new technologies. So there is the new higher supply, and there is the demand threat.

Now I am going to stop there, because on the demand threat, the single question occupying everyone's minds is, I think, China. The world generally believes that the US will grow at 2.5% to 3% this year. Europe will go from recession last year to probably plus 1% this year, and better in 2015. But the question on everyone's mind is: what about China? And luckily, we have Professor Fan to tell us.

Dr. G. Fan:

Thank you very much for your overview of the commodities market. Talking about China, maybe we will start with a little bit of recent history of the Chinese economy for the past 10 years, when China's demand for commodities, particularly oil, really jumped. But we have experienced overheating, too, in the past 10 years, between 2005 and 2007. Then we had adjustment, but then we had the financial crisis, and China overreacted and adopted very big stimulus policies, which created another round of overheating.

What does overheating mean? Overheating means inflation and asset bubbles. And then, when you look at the past 20 years of recent history, whenever China gets to 9% growth, we get inflation. Whenever we have double digits, 10% and higher, we get both inflation and asset bubbles. What does that mean? That means everybody is talking about China having grown by 10% every year in the past, though it was not actually every year. It was only above 10% for a few years, and 10% will never be proper growth. It is overheated growth. Now we are dealing with the problems which are left over from those overheatings: overcapacity, the debt problem, the shadow banking, what people talk about as the risk of China. But that means we are changing from an overheating situation to something else. I would argue that 7-8% GDP growth per year is normal growth for China, and it will be stable growth for China. We will have to adapt to that kind of situation.

From that point of view, I will say it is good. After three years of so-called soft landing, I do not see a risk of the collapse of the Chinese economy. I do not see another hard landing, because the soft landing has already happened. I will argue two things: number one, we should not expect China's demand to continue to grow as in the past overheating period. It will be slowed down to the normal growth rate. Number two, China's demand is still there and will continue to be there. It will not be interrupted by a big collapse. It will continue, but at a lower rate; the demand will be coming anyway. China's consumption is still very low. The middle class has just started, and consumption has just started, actually.

You mentioned cars, you mentioned everything else; heating and modern comforts for the middle class are just coming, but will not be overheated, like in the past.

Also, we need to realize that we have a lot of problems along with the growth: pollution, inefficiency, structural problems, etc. We are addressing these kinds of problems. Reforms are already addressing the inefficiency problems, and the pollution issue has also become a matter of domestic politics. Everyone is now talking about this, not only the traffic jams but the fog, the smoke, and all those things. So that will reduce the demand for traditional energy, to a certain extent. China may have more nuclear, and China may make more effort with renewables, and that may not be a big deal, but it may also have some impact on demand. Anyway, a simple conclusion: we are not going to have overgrowth, but the growth will continue.

C. Robertson:

And perhaps the Russia-China gas deal is also related to those environmental issues. It is a cleaner fuel, unlike coal, and perhaps reduces some of those environmental issues. On the demand side, hopefully you are right that this is good. On the supply side, I am fascinated, because we have seen big changes in metal prices, and we have seen big shifts—and I will definitely come to Daniel Jaeggi about this soon, as well. But on the oil side, we have had complete stability, and I would love to hear from you, Sir, about why you think that is so.

S.M.F. Al Mazrouei:

First of all, on the oil side, or the supply side, we have also seen some newcomers to the market. We have the conventional oil, and we have the unconventional. I think that the stability that we have seen on prices was driven by the fact that the conventional alone was not enough to maintain the growth that the Professor has talked about during those growth years for China and

India. It needed a complementing factor, which was the development of this more challenging, more expensive shale oil and some of the unconventional oils as well, in terms of either shallow or deep resources.

This complementing factor increased demand, and it complemented the market in such a way that it is very difficult to lose that factor now. What is going to happen in the future if the price is not right for this kind of complementing oil? I am sure a correction will be made very quickly. I think we have never seen a more stable oil environment in a very changeable and challenging economic environment than we have seen in the past five years, I would say. If you want to say around USD 100, I would say we have seen this stability for around three or four years.

I think that with that stability, and what was perceived as high oil prices, we have also seen growth in China in a sustainable manner, the 7-8% like the Professor said. So I think this is sustainable for the producers. We do not want to see an overheated growth or an increase in the growth from the demand side, because that is not healthy. At the same time, we do not want to see a reactive oversupply in the market that is not needed two years from now. I think the growth that we have seen is sustainable in the environment of USD 100 or close to USD 100. There are also other factors that are happening as well. The middle class is growing, because of these economics, and this middle class also requires additional hydrocarbon resources, and not only in China and India. In Africa, for example, we have also seen a very high, sometimes double-digit growth in certain countries. Yes, it is small, but they also have major discoveries in hydrocarbons, so you can assume that we are going to see other developing economies requiring these resources.

C. Robertson:

Thank you. Do you think it is OPEC helping to control the market, to some extent? Do you think relations with Russia might be good enough to maintain some sort of cooperation, perhaps, on oil supply?

S.M.F. Al Mazrouei:

I think, on the increasing cooperation with Russia and with the East, we have seen that trend happening in, I would say, the last five to six years. Our conventional market is the East, China, India, and Southeast Asia, so we increased our investments, we increased our cooperation with them, and we even went to the extent that we had oil storage in the likes of Japan and Korea, especially for us in the United Arab Emirates.

I do not think OPEC should be concerned about the price any more. This is my view, because this complementing factor is coming from the two thirds that OPEC is not producing, which others are producing. I think those international oil companies are now more concerned about the price than we are. We are producing the conventional, less expensive resources. They are producing the prime and more expensive resources. So who is going to correct for the price if an over-supply happens in the market? I do not think OPEC is going to do that. I think it is going to be the rest of the world. This is the shift that we have seen from the conventional blame that OPEC was curtailing and controlling the market; I think we are seeing a shift now, and the likes of the US shale oil could have a major impact in correcting the price compared to us in OPEC.

C. Robertson:

Mr. Deripaska, perhaps cooperation with OPEC has helped to stabilize prices. There has been much more volatility in metal prices. I am fascinated to know what you think will be happening in the near future.

O. Deripaska:

Actually, I cannot see much role for it. We have been going down for the last five years because of oversupply, and you correctly showed this on one of your charts. What we have now is a very healthy demand in our sector, in aluminium. Our main customers are transportation, construction, infrastructure, packaging, and some kitchen appliances and that sort of product. Average growth in consumption for the last three years was around 7%-7.5%, and we believe that growth will continue for the next three to five years at not less than 6%. Our customers have little problem now with how to hedge the final price, and the moderation mechanism will be corrected, because aluminium is not very efficient. There is a reason for that: aluminium was structured eight years ago, and the market has changed dramatically. We have new customers in the East, and we have new instrument development. There are old platforms which could and should be modernized, but that would not be the only platform. We believe that a proper price arrangement should be made for our customers in the East and Shanghai. There are new products coming in America, and if the price mechanism is corrected, this mechanism will create a proper estimation of the balance between supply and demand.

The main issue in the whole commodity sector is on the supply side. First, we were very optimistic before the crisis. We totally relied upon a trade and commodities infrastructure which created a lot of unhealthy stock. At this moment, most of the companies and regions have realized that this is not sustainable. We have made the proper output adjustment. Last year, in our sector, there was a deficit of around 400,000 tonnes between current supply and current demand. This year, it will be over 1.3 million tonnes. We still have quite significant stock, which will go down in the next two and a half years.

In the three main regions, such as the Middle East and China, China has excess coal capacity and access to cheap bauxite and alumina. This will trigger a lot of expansion. Also, an industrial shift to Western regions will create an opportunity. I

think when all costs and benefits are properly evaluated and the federal government adjusts its policy, we may see a good result already next year.

As I said, in the aluminium industry, a key point is access to cheap energy, access to resources such as bauxite and alumina, and transportation costs. In our view, China will create a more consolidated industry in the next five years. This will also help, but, as I said, our key focus is the customer, how the customer can be satisfied with access to the product, price arrangements and price predictability.

As I said, we have a lot of issues resolved. The markets are balanced now. We still have a small issue with multi-product companies, because their behaviour is very irrational. Investors have almost no access to correct management, and sometimes they decide out of the blue that they should invest in iron, coal, or a new terminal, and then you have this boom in supply, and finally that creates a negative price aspect. It is just a matter of time, and I think this part of the cycle creates an opportunity to really rethink what the commodity business is on the supply side and how producers must behave in order to deliver properly on equity and deliver a proper return to the shareholders. In aluminium, as I said and I want to repeat again, we have a very healthy situation for the future, and the growth of consumption will eliminate any wastage that was created during the last crisis.

C. Robertson:

I will take the blame for that; obviously the economics profession told the world that the economy would grow forever and there would be no global financial crisis, and people perhaps overinvested on the back of that. But you are saying the supply response is less investment now, allowing those stocks of aluminium to fall, and perhaps in two years, at least in your sector, it will be back to balance and continued consumption again. Daniel, if I could ask you, from the markets

perspective, what do you think the markets are pricing in, what do you know the markets are pricing in, and where do you think we are going?

D. Jaeggi:

Before I go into the perilous exercise of price forecasting, and I can tell you I am not very good at it, let me make a few general points and bounce back to some of the things that were said around the table. First of all, I had a question for Dr. Fan. I am interested to know what you think the normalized rate of growth in China actually is. I think that would give all of us a bit of a clue, because in the end, when you are trying to forecast too many moving variables, it is nice to nail one down. My economists have a number, but I would be very fascinated to hear Dr. Fan's.

I do agree, however, with the general sentiment that Mr. Deripaska expressed on the supply side of the equation. One of my bosses used to say, "Nothing cures high prices like high prices." That sounds sort of self-evident and bizarre, but when you think about it, it also works for low prices. Then the question becomes, what is low and what is high? At the end of the day, what we are seeing in the various markets, and certainly in aluminium and in coal, for instance, is clearly a supply response. What is happening is that there is a supply response to the lower price. In that sense, markets work. As you said before, prices in aluminium have come down for five years, and the lower price is solving some of the substantial issues.

This is where I am going to do a bit of predicting, and that is going to be disappointing. On the demand side of the equation, I actually believe that, going forward, the next global commodities bull market is actually going to be when you have synchronized global growth, because when you look back at the situation of oil prices, let us say, from 2000 to 2004, really what we saw is China erupting onto the international scene, but the other thing that people forget is that there was globalized, synchronized economic growth across all three regions.

So we are back into the perilous predicting mode. I predict that the trend line for Europe is probably going to be somewhere around 1%, so probably there are some structural issues still to work through. However, if I look at the US and at Asia, including China, I believe that growth is actually probably going to surprise and be somewhat to the upside. There is a series of reasons, for instance, in the US, that have to do with the shale revolution, and so on and so forth, that we can dig into if you like. I think that probably we will have surprises on the demand side, probably to the upside, versus some of the more pessimistic expectations that we have been getting since 2009 and 2010, where the global financial markets have led us to a pessimism that is, in my opinion, somewhat exaggerated by now.

C. Robertson:

That is, I think, a great point about low prices. That graph shows you that in the 1980s, the oil prices came down so far that it supported global growth and a pick-up that eventually led to higher demand. I personally think that the reason that oil took so long to get back up again was the collapse of the Soviet Union in the 1990s. When the Soviet Union fell apart, its consumption of energy just shrank. I think Russia was a USD 200 billion economy in 1999. When you go from that up to a USD 2 trillion economy in 15 years, then that plays an extra supportive role. China was undoubtedly the most important, going from USD 1 trillion to USD 8 trillion of GDP in about 10 years. But to come to Daniel's question on China, my best case is that it slows about 0.5% a year over the decade, to maybe 4%-4.5% in 5 to 10 years' time. But I would love to hear a professional view from Beijing!

Dr. G. Fan:

If you are familiar with the concept of so-called potential growth, it is a slow variable. It cannot be adjusted in that way because it depends on a lot of factors. But to answer your question, I would say that, at the moment, China's potential

normal growth is something around 7%. In the past 20 years, actually, we have had inflation when the growth rate was beyond 9%, and we got deflation when the growth rate was below 7%. Remember, we are talking about the 1990s; there are almost 8 years between 1996 and 2003, when China grew at just 6%, 7%, 8%. China has not always grown at 10%; people have only gotten the impression that we have that kind of overheating in the past few years.

So that shows the potential. In the past, it was not 10%, and at the moment, it will gradually slow down to 7%, and maybe to 6% in five years, but we will see. I will agree with you that there are now over-pessimistic views and that there is an exaggeration of the risk of some parts of the world economy, and not only in China.

C. Robertson:

We just had an Indian election which has been greeted extremely well by the markets, with huge enthusiasm for Mr. Modi and what he is perhaps going to do in India. I am glad you mentioned Africa before, because I just wrote a book about that two years ago. It is all about how Africa is coming up, and I am arguing that it is perhaps 20 years behind India. India is now at the per capita GDP level where, when China got there, suddenly demand for commodities began to jump. We saw this globally. I am just wondering: do we see that either in the metals space, or is it beginning yet on the oil side? Where are the new markets for you?

S.M.F. Al Mazrouei:

I think, on the oil side, India's demand has grown. But what we have seen, which is a bit of a change, is that the conventional consumers have started to become producers, not on their land, but elsewhere. We have seen China investing heavily in some countries in Africa, bringing hydrocarbon. We are seeing that consumers want to be involved in the upstream as well; they want to be involved

in the midstream, and they want to secure their demand, rather than just relying on the system and buying a barrel of oil. We have also seen a trend where the conventional producers like us are also keen on investing either with the customers in their countries or elsewhere. I think that cooperation trend is going to unlock more resources inside the producing countries and also in new markets. Growth is there, but it is not necessarily going to be satisfied by the conventional reliance on producers. There is more of a partnership model that is evolving and happening around the world.

C. Robertson:

Can I follow up? Because I saw a speech that you gave the other day, and it surprised me, because it sounds like UAE is moving to a much more diversified electricity supply model. I was just wondering if you could say a few words about that.

S.M.F. Al Mazrouei:

Sure. In the United Arab Emirates, we are a net importer of gas. We are importing about 2 Bcf a day from Qatar through a pipeline, and we also started importing some LNG a few years back in Dubai, which is now expanding with a new project. We are building another project for 9 million tonnes, which is going to be in place by 2018. This makes us a 13 million tonne LNG importer in addition to a 2 Bcf pipeline importer. That led us to create a policy on diversification of sources of fuel, and we are adopting cleaner fuel, so gas is going to be around 70% by 2020 and 25% is going to be nuclear. We are building four nuclear plants producing around 5.6 gigawatts of electricity, and we are targeting a 5% solar contribution as well. This is up to 2020.

This energy mix basket is going to evolve and change over time, as the competition between the different sources of energy changes. Thanks to China, we have seen a significant decrease in the price of solar panels, and that opened

a new market for cleaner renewable energy in the United Arab Emirates, in Africa, and even in Europe. I think we are going to see more of those projects as the environmental concerns around using coal for power generation evolve. The greenhouse effect has turned from just talk to action now around the globe. That is why we in the United Arab Emirates are adopting cleaner, sustainable forms of energy in a diversified but balanced manner.

C. Robertson:

Professor Fan, just on the issue of energy demand in China, LNG, renewables, solar, hydro power: apart from the Three Gorges Dam, I was wondering what your thoughts are on where we go there in the next few years?

Dr. G. Fan:

We have almost run out of hydro power resources, so we will not see an increase in the share of hydro power. It was stabilized at something like 10% of the total energy consumption. China is building nuclear stations. We have got quite a large programme, but it will account for about 15%. Renewables are very small. We have got a lot of supply of the materials, but we have the problem of transportation and grid adaptation problems, so hopefully that will eventually account for something like 5%. Basically, oil, coal and gas will account for something like 70% of the total consumption.

But China is definitely trying to increase the consumption of gas. This pipeline has already been built, and hopefully we will have more gas, particularly for heating systems in the northern region. The reasons for the fog and the pollution issues mainly relate to coal burning, and coal still accounts for something like more than 60% of total consumption at the moment. Eventually, hopefully, that will be 50%, but still 50% is down 20% from the current levels. Think about that. That remains a big challenge to China. We do not have much gas, and we do not have much oil, either, so China's basic endowment is coal. We are increasing the

import of the cleaner energies, but we still depend very much on coal consumption.

C. Robertson:

We have got Iran, perhaps, hoping to sell to you in the future, and Qatar and Australia talking about LNG exports. The US has also been shifting, and what I hear from people talking in Washington is that the US is more and more likely to approve LNG exports, partly to Europe, partly connected to the whole Russia/Ukraine story, a little part of the story. Daniel, what do you think is the future of the shale gas story, and renewables, maybe, in general?

D. Jaeggi:

If your question is whether I personally believe the US is going to export significant amounts of gas in the future, my personal answer is that I do not think so. There are a number of reasons for that, which are probably linked partly to the formulation of policy, and partly to the fact that it is just not that easy to do. The policy response and the economic response that I am seeing to cheap gas prices is to transform that gas into higher value-added products in the US, therefore stimulating the US economy, and so personally I am sceptical as to whether it is going to happen in significant amounts to essentially change the balances.

At this stage, I would like to dwell on something that His Excellency said regarding conventional versus non-conventional supply response. Your point, if I understand it correctly, was that the onus is no longer on us to balance the market, because in a way, it is in the interest of the non-conventional producers to keep the price at a level which is economically acceptable. I do agree with that basic principle. However, the caveat is what is economically acceptable for the producer? There, the gas market actually gives us a bit of a clue to the oil market. One thing that people fail to appreciate is the fact that the shale

revolution is only partly a supply response, and is partly an innovation or technological one. It was done by people like Mr. Mitchell, who was really a maverick, if you like, and for a long time, before he discovered the fact that you could drill these reservoirs in a horizontal fashion, people did not believe it. Everyone knew that this shale was there, but no one knew how to extract it, so it was the innovation of a few mavericks that essentially changed the balance. Subsequently, when the stock price of gas rallied to USD 14-15 per m³ in 2007 and 2008, that technological innovation became scalable and made a substantial difference in the production profiles. I would like to remind you that now the long-term price of gas is between USD 4 and 5 per m³, and the production has not disappeared because, in the meantime, they got better at extracting the gas for a lower price.

I do agree with you that part of the onus becomes for all of the producers collectively to give their supply responses, but the cost curves are actually declining over time, which means that these producers can be more competitive in a lower-priced environment, so a subtle nuance there. But the general point is, I think, that shale is here to stay, and in the end, the US is not going to export significant amounts due to the reasons that I said, but we will continue to see a significant price differential in the price of gas between Europe, Asia, and the US, which I believe will disproportionately stimulate US economic growth.

C. Robertson:

We are all good for growth, I guess. Mr. Deripaska, one of the issues that have come up here is the idea of the US using its own shale gas to support its own industry, and perhaps we have also seen the Gulf countries use their oil to move into petrochemicals. Do you see more domestic demand for your production, perhaps as Russia tries to diversify its dependence away from Europe a little? Do you think there is scope for more domestic demand to help your sector?

O. Deripaska:

Definitely. At this moment, we are slightly below 1 million tonnes of local consumption in Russia. Approximately 40% goes into various product exports, and we can double it in the next five years. It is not about sanctions or tension, just about the cost of capital and opportunities in terms of producing competitive products. There is an opportunity, as you mentioned, in India. What we have learned from the past is that a successful election is not enough to produce growth. There is a lot of optimism, but in the end, it is infrastructure, the cost of capital and debt availability, and those are things are still missing in India. For our product, we need to develop a quite sophisticated aluminium industry: 5 million tonnes. Local consumption is less than 17% of this, which means we will concentrate on African growth in terms of opportunity for them to deliver semi-products to these countries.

I think it is important, again, to see what the price arrangement is. Price should be the justification for our customers, not how they could use this metal, because the shale revolution in the energy sector is based on high oil prices. If the price is too high, our customers will always find a way to substitute the product. That is why it is important for suppliers to understand where the line is where the customer will consider moving to another product, or how we can create our product in a more sophisticated way so they can do more producing of semi-products or improved alloys. There is a lot of opportunity.

C. Robertson:

Can I also follow up? During this period when supply has been too big, demand has been a bit weaker, and the Russian Government stepped in and said, "We will try and help," and froze transportation and utility prices. I think part of that goal was to support the end-user, like you, through this difficult period. What else can the government do? What else do you think would be helpful from the

authorities during this two- or three-year period when supply is still a little too high globally?

O. Deripaska:

I am not sure that we need something from the government. The government stepped in to support not just the aluminium industry but also growth, and I think it is fairly reasonable for them to see how they could produce a proper stimulus for growth. Of course, attractiveness in Russia results in expectations, and cost is now key for energy; electricity prices and resource prices are very important. But as I said, in the period before the crisis, when there was government intervention in China, for example, they had a lot of coal, but no one understood what the environmental cost of this coal would be. We know that last year China burned more than 4 billion tonnes of coal. Only 70% of this coal is for power. A lot of coal is used in new innovation development, in applications in the chemical industry, and many other aspects.

But again, the government usually disturbs the market; it does not help it. It does not create a proper strategy, and they create opportunities which may cause losses. I am not sure how much this actually created a benefit for the aluminium industry. Yes, it has diversified, but if you compare USD 10,000 to USD 12,000 per tonne of capacity with today's return of USD 250 per tonne, in my view, it is not right. They made strategic decisions to diversify. Of course, you could not produce aluminium if you used gas, which you are buying, or tried to produce nuclear energy. But they know that, in the next stage, they will produce semi-products, which will finally justify this strategic decision. It is the same in Russia. Russia needs a higher rate of growth. We need to develop our country, and of course the government will think more about how to produce a stimulus for development. We have resources, and more importantly, we have people who can deliver good, competitive solutions for the market demand.

C. Robertson:

You have touched on governments interfering in the market. We have got an important election coming up this weekend. If you are sitting in Moscow, you are looking in one direction; if you are in the Gulf, you might be looking at Cairo, Egypt. They have a presidential election, and one of the things that the new President will have to do is cut these huge subsidies that Egypt continues to have. India, again, has a huge problem of subsidies that the government insists on distorting the economy with, and it really hurts their budget. This budget deficit that India continues to hold is one of the reasons the rupee was sold off so much. Does China still have subsidies?

Dr. G. Fan:

It has been experiencing quite dramatic changes in this regard, particularly with regard to energy consumption. Price control has almost been lifted in the past three years.

C. Robertson:

What impact did that have on demand? Not too much? Or do you think maybe the weakness in PMI numbers is at all related to that?

Dr. G. Fan:

Yes, somewhat related. It is sensitive, and people have really adjusted their behaviour and adjusted their demand. But this adjustment has happened in the continuation of the growth, so you may not see very big changes, but actually it has changed quite a lot.

C. Robertson:

What sort of price changes have we seen, then? What loss of subsidy?

Dr. G. Fan:

Before the subsidies were on gas, for example; now, it fluctuates with the global market. No subsidies are given to the oil companies in that case, so they are subject to the market prices, and the consumer is subject to market prices. I think in the past three or four years, a big change has happened. In the relationship between the coal-mining industry and the electricity generation industry, that kind of subsidy has also disappeared in recent years. I think it has disappeared quite rapidly in the past years, and the relationship between coal prices and electricity prices is now quite normal, quite market-driven, partially because of the drop in the coal prices in recent years. That is why people do not realize that there is a big change in the mechanism, but actually it is changing.

C. Robertson:

So, they reduced the subsidy at a time when prices were going down, so people did not really notice.

Dr. G. Fan:

That is right.

C. Robertson:

It will hurt more when the price returns.

Dr. G. Fan:

That is right. This time, we really caught the opportunity of these price changes and the change in the pricing regime.

C. Robertson:

Not many governments manage that. That is quite impressive. I am guessing there are subsidies in UAE: how much do you pay for a litre of fuel?

S.M.F. Al Mazrouei:

It is very painful for the government! The subsidy in UAE on fuel is between 50% and 60%. Probably the thing that I have talked about and criticized most since I became Minister is the subsidies, and I think it is a critical risk to many governments—not to us, because we have a small population, and we are rather a rich country, but I think it is a critical risk for countries like Egypt and India, who have huge populations.

First of all, when talking about subsidies, especially in energy, you need to realize what happened to the energy prices in the past years. That shift from USD 30 and a USD 1 gas price to USD 100 and a USD 12 or USD 14 LNG price is what happened, and it took the government time to realize that this is the new norm, these are the new sustainable prices, and it will take them time to plan and change. It is not easy because you could deal with unrest. It depends on which country you are, when you are trying to take something that you have already given to the people. Therefore, I think any government needs to think, plan, and act on how to deal with subsidies.

I think the logical thing to do is, first of all, free the energy subsidy, because it is very painful for the government, because the fluctuation in the prices could be huge. Therefore, for us in the United Arab Emirates, we are now in the planning phase of how to deal with the subsidy. We have started some campaigns on how to efficiently change the building codes, for example, when we are talking about a subsidy for electricity, changing the standard lighting to LED lighting where we can save, shifting towards mandatory building codes using solar to heat water when needed, for example, and we are developing those policies as we are deal with the issue. But at the same time, I think price adjustments will need to happen, where those who consume three times what others do need to pay significantly more than those who are conserving energy.

Gasoline is another issue, and the problem in the Gulf States is we are interconnected, so if one country changes their gasoline prices, you will have the others impacted negatively because there will be smuggling of that commodity or

fuel from the neighbours, and that will hurt the others. On gasoline, we are trying to do something on the regional level if we can; if we cannot, then I think we will do something. We had a very bullish move when we freed diesel, so diesel is sold at the international price almost throughout the United Arab Emirates. It is something that we need to deal with.

C. Robertson:

I am really surprised by two things that you have said. One, nuclear power, and second, getting rid of subsidies, because most countries with energy — Venezuela, for example — just say, “Have free energy; everyone should have free resources.” It has destroyed Venezuela; it is a bad policy, but you have so much wealth per capita from energy in the UAE that I am surprised that you are both diversifying and changing on the subsidy side.

I guess, as you are here: in the Gulf, there is near civil war in Iraq and a lot of conflict in Iraq, again. Iran may or may not make a deal with the US on the nuclear issue, and now we have Egypt, and Syria is still on-going. Could you give, if you do not mind, a couple of minutes on where you think the Gulf is going on the political side?

S.M.F. Al Mazrouei:

I do not think we see what they call the Arab Revolution or the Arab Spring as a “spring”. We see it as destruction, as chaos, and I think the people now, rather than the government, are realizing this. They are realizing that they need peace and prosperity. I am very glad that Egypt did not reach that stage because Egypt is a major cornerstone in the Arab world. The Gulf States are still prosperous. In Egypt, there is hope now, with the new election, and we hope that the people will choose a government. The Gulf States are trying to help Egypt, not only financially, but also helping them with their regulations, helping them to bring more foreign capital and more investment into the private sector in Egypt, trying

to help them with what we have reached in dealing with the subsidies and at least put a plan together.

What we see in Syria is really sad, and we hope that this massacre will stop. Iraq, I think, has long been in this state of unrest, and I hope that the new production in Iraq and the new resources are going to help the people stabilize and rebuild Iraq. We are fortunate in the Gulf States that the people and the government are very close to each other. The wealth distribution, the planning, and the lifestyle are very good, improving, and healthy. It is becoming a destination that many people not only want to visit, but want to live in, and I think that gives hope for the Arab world. Having resources is not enough to build an economy, as you mentioned with Venezuela and some other countries. It is not enough to build peace with your people. I think it is the wisdom of leadership and the wisdom of distributing that wealth and building prosperity.

C. Robertson:

Thank you very much. We have just got a few minutes to wrap up. Daniel, you have raised a few provocative questions already, and I was just wondering whether you have any more that you wanted to pose. But before I hand it over to you on that, I put out a Tweet yesterday which is exactly about this issue with Egypt, and I found it interesting how the opinion polls had changed. What they were saying is confidence in democracy. The Egyptians are still looking for democracy. They still want it, but the change in just one year in Egypt is that, in 2013, 51% said democracy is a priority. Now it is just 44% saying it is a priority. For “stability is the priority” it was 43% last year, and 54% this year. The Egyptians are actually favouring stability. They want both, obviously, but it is just interesting to see that this is what the people are looking for. I suspect the vote is going to be very strong this weekend. Daniel, did you have an extra question or two to pose, or perhaps just some thoughts?

D. Jaeggi:

Actually, I did have a couple of questions that I would be interested to hear the response of the panel on. One of them is a general observation, which is that I have the feeling that one of the themes that I see in the markets is that there is more and more convergence. Commodity markets in general used to live in silos. The coal market lived in a different silo from the gas market, from the oil markets, the liquids markets, the metals markets, and the agricultural markets. One of the things that I see going on over the space of a decade is this convergence of markets where, somehow, things that are happening in one part of the economy or one part of the market are having a knock-on effect in other markets. I wonder how the producers and the consumers in general deal with this phenomenon, or whether it is at all something that people are actually thinking about in general. That is sort of the general question.

Then there is a question on China. I see a couple of things happening in China, and one of them is that there is a trend by the Chinese commodity players to try and encourage benchmark tools, local exchanges, and what is happening in Shanghai, for instance. The general trend seems to be that China used to be a price-taker, if you like; it would buy the commodity FOB and sort of move it to China. Now, there is an accelerated trend to have futures markets, for instance, developing locally in China, and I believe that might have an impact over time in terms of how the price of commodities is actually determined, since the role of China relatively is increasing. I was wondering whether this is a trend that you are seeing, and who is encouraging it.

Dr. G. Fan:

I think it is very natural when you are an increasingly major consumer that you would like to have an impact on prices. That is why I think the government has encouraged it and the industries are really moving in that direction. They are trying to have more influence. The local exchange is a trend. They have tended

to trade more internally or trade in Hong Kong or in the region, to be part of price setting. I do not think they believe that they will be big enough or influential enough immediately as a price-setter, but they would like to participate anyway. If you ask if that is a trend, it is a trend, but how long it will take is still questionable, partly because the market mechanisms and the financial sectors are not ready to facilitate this kind of local exchange. The Hong Kong commodities exchange actually collapsed because trade was not that large. I do not know if you have heard that story. That was part of the effort to set up some kind of local exchange, but it met with bankruptcy because of the lack of trading, and partly because the financing means were not good enough, and newcomers were not competitive enough in the early stages. So the trend is there, but it will take time to shape.

C. Robertson:

I am actually conscious that it is a minute or two before I have asked us to stop. But do, please.

O. Deripaska:

It is an important issue: who is the price-setter? China caused it a lot; they even managed to buy the best price-setter, for the crazy amount of pricing. I think it is important for China to define what will be chosen. My observation is that China is not in favour of low prices any more. Their banks are not heavily exposed, do not have many projects, and low prices will damage them as much as the rest of us. I think it is important to understand the way to a good trend. The market will work only if it is fairly transparent and has correct and effective mechanisms on how to price and all the factors.

There are a few factors which should be eliminated in the next couple of years, such as hidden subsidies. We know that in China there is a clear environmental subsidy, there is a clearly inefficient electricity market which is not effectively

transforming coal through the various instruments to the consumer, and sometimes capital costs are still slightly deflated in the middle. In Russia, we are not perfect in our situation with our financial markets, and we still have not clearly presented our resource policy in various economies. We have seen what happened after Indonesia banned certain resources. We still have a development process in Latin America and Africa, and I think this is a hidden cost which will be realized very soon.

And, of course, there are huge, multi-product companies, if they do not change their practices and strategies. There are already tendencies; they try to spin off products which they cannot manage or cannot understand, but I think it is a great tendency that shareholders hardly realize. It is a better return for them on their equity if they split these companies which are not effectively operated in the open markets. Of course, we will then see more clearly what the different amounts and balances between supply and demand would be, the cost of investing in new products, and then commodities will be more attractive for investment. But before that, we have two years of trouble and up and down hikes.

C. Robertson:

You summed up one of my concluding lines! It will be two years, perhaps, before we get the excess supply out. We need a global synchronized growth to see the next commodity price boom. I have been surprised to hear about this change in subsidies, that there has been some reduction both in China and the UAE. That was the concluding comment, so thank you very much indeed, panel, and everyone, for coming along and listening. That was very interesting. Thank you.