ST. PETERSBURG INTERNATIONAL ECONOMIC FORUM

JUNE 21 – 23, 2012

Securing the Future

RESOURCE SECURITY AND MEETING THE NEEDS OF THREE BILLION NEW GLOBAL CONSUMERS

Arena Debate

JUNE 22, 2012 — 14:45 – 16:00, Pavilion 4, Hall 4.1, Arena

St. Petersburg, Russia

2012

In cooperation with RUSAL

Moderator:

Charles Robertson, Global Chief Economist, Renaissance Capital

Panelists:

Dominic Barton, Managing Director, McKinsey & Company

Ivan Glasenberg, Chief Executive Officer, Glencore

Jun Ma, Managing Director, Chief Economist, Deutsche Bank in China

Vladislav Soloviev, First Deputy Chief Executive Officer, UC RUSAL

C. Robertson:

Ladies and gentlemen, thank you very much for coming to this panel that will talk about ‘Resource Security and Meeting the Needs of Three Billion New Global Consumers’.

If I may introduce myself, I am Charles Robertson, Global Chief Economist and Head of Strategy at Renaissance Capital.

Economists are paid to worry, and so what we do is see the downside in everything. Strategists are paid to see the upside, so I am a very confused person. I would like to try and ask you about the outlook for this sector in the short to medium term, as well as in the long term.

Before I introduce our panel, I want to go through a few slides. These are IMF numbers showing you global GDP based on their forecasts. What is interesting is that, despite the global financial crisis, they have global GDP continually rising over the next few years.

What is not happening is any significant G7 growth. The G7 are increasingly playing a less significant role. We are far more dependent on China, about which Dr. Ma will be talking to us in a moment. That is a good news story and you can see some more detail on this here. If I show you the top 40 economies in the world, you can see that China is now the second-largest economy there.

Brazil has managed to beat my country, the United Kingdom, into sixth place, so we are now seventh. Italy, I think, is falling down the rankings, whereas Russia is moving up. Moreover, in Africa we have a continent that is now worth USD 2 trillion.

So, there is a big shift occurring here. It is amazing to look at Greece and see just how small this country is given all the trouble it is causing. That is the picture for the global market economy. There is a shift to emerging market growth and a shift to emerging market GDP.

We then need to look at the resources element. On the black line, this chart shows you the cost of energy as a percentage of global GDP. In the 1960s, the world spent 1% of GDP on oil. In the 1970s, during the Arab-Israeli war, this jumped to 4.5% of GDP. What happened because of that rise? The result was new supply. Mexico discovered oil, as did Alaska and the North Sea. The consequence of new supply was that when there was a global demand shock with oil prices jumping to 7–8% of GDP in the global shock of 1980–1981, demand fell globally whilst supply was strong. Resources fell back to levels no one had expected just a few years before.

Let us fast-forward to the 1990s. We saw the collapse of the Soviet Union, which was one of the most inefficient users of resources in the world. The Soviet system was able to take oil, coal, and iron ore, and produce steel that was worth less than the coal, iron, and oil that had helped make it. So, the collapse of the Soviet Union took away a very inefficient user of resources. We saw commodities stay very cheap. China is now on the rise and the Soviet Union is no more. We now have Russia, which is run on much more sensible economic principles. Furthermore, global demand is up.

The question is: do we risk another fall? Will there be another global demand shock because Spain leaves the eurozone, because China has a hard landing, or because America cannot cope with its fiscal cliff? You can hear the economist in me when I ask these questions. That is the worrier, but then the strategist in me takes over and points out that, if we look at energy demand in China in the left-hand chart, we can see that it is something like two barrels of oil a year consumed in China now, compared to six in Japan in 1965 and as many as 20 or more in the United States.

If China and India were consuming at the rate of Japan in 1965, when it was a very small emerging market, then China would already be demanding 23 million barrels of oil a day instead of just nine. This tells us that there is huge demand still to come for commodities and resources.

If we look at global GDP over the last 30 years, we can see that, as it rises, aluminium production needs to increase dramatically to keep up. Copper production, by the looks of this chart, is still insufficient. If we look at these charts here, we can see how much China and India are using relative to developed markets. The outlook looks extremely bullish.

I might come back to these charts as we discuss this over the next hour or so, but I would like to turn first to Dr. Ma. The Chinese economy has concerns about a hard landing. My base case is that it is much like Japan in the 1960s or 1970s and that China still has a good 20 years more of growth to run. This will no longer be at 9-10%, but things will still be good.

But there are a lot of worries. Demand, for example, is slowing. Can they make a shift to consumption?

Let me hand over to Dr. Ma of Deutsche Bank. Dr. Ma, please.

Dr. J. Ma:

Thank you very much, Charles. I have probably heard these questions regarding whether China will have a hard or soft landing two hundred times in the past few months.

In the very short term, I think we are experiencing something that is perceived as or feels like a hard landing. I am talking about the current quarter and the early part of next quarter. In my view, we will see a recovery towards the end of this year to a more normalized growth rate of 8–8.5%. The current trough is around 7%. I would say that, on a sequential basis and a year-on-year basis in Q2, I am looking for 7.5%. I will give you the specific reasons for that in just a few minutes.

That is a very short-term outlook. The longer term story, over the next 5–10 years, is much more concerned with a structural shift, which means that China is moving away from an investment/export-driven model and towards a consumption/service-driven model.

This longer-term model is somewhat negative for the commodities sector, especially hard commodities like steel, iron ore and so on. But it is less negative for some hard commodities, including copper and aluminium, and it will be fairly neutral for oil. I will go into some of these conclusions with a couple of arguments and specific numerical analysis.

Firstly, in the short term, what we are experiencing right now is a contraction of GDP growth led by policy tightening. It is not so much driven by the European shock as by slow growth. Exports were doing well. In fact, last month, we had 15% positive year-on-year growth in exports.

The domestic problem is that we now have a big contraction in infrastructure spending. For example, railway spending contracted by 40% year-on-year. Why? This was because we had a massive stimulus package in 2009 and, as you probably remember, we had 200% growth in the early part of 2009. The government basically spent whatever they needed to spend in the years to come.

If they were to continue that pace in 2009–2012 it would lead to lots of bubbles: NPLs, inflation and so on. That is why the government began to tighten monetary conditions and project approvals for new spending in 2010. However, after one and a half years of adjustment, you come into a trough on a year-on-year and also a sequential basis. So this pain has been inflicted by the necessary policy tightening after the initial stimulus, which was excessive relative to what was actually needed.

This problem is going to go away after the adjustment period of a couple of quarters, and I am now seeing the government putting out supportive measures for growth. For example, last month we had one rate cut and we also saw the CBRC, which is the banking regulator, advising the banks to lend a little more aggressively to medium and long-term projects. In addition, the fiscal authorities have been injecting budgetary funds into the new projects that have been approved in the past couple of months.

All of these indications suggest that, in a few months, we are going to see some sequential recovery in investment, especially in the infrastructure sector. Short-term investors should be expecting some sort of rebound in the commodities sector, although it will not be massive. There can be no comparison with the magnitude of 2009, but I think it is going to be positive compared with where we are right now. That is the short-term problem.

The medium-term problem is that China has largely been growing on the basis of an investment and export-led model. There are two reasons that this is not sustainable. The first is that, on the investment side, demand for real estate will fall going forward due to demographics. The Chinese labour force is beginning to shrink. In fact, this started last year. My projection is that, in the next few decades, the Chinese labour force will shrink by 200 million people. That is more than the entire Russian population.

What will this do to investment, as the labour force is essentially the population that buys apartments? You enter the labour force, get a job, get married, have kids, and you want to buy an apartment. This demand is going to diminish, initially at least in terms of growth, and, perhaps later, on an absolute level.

This will reduce the growth rate of the real estate sector, which has been the number-one driver of foreign investment and growth in commodities, especially hard commodities like steel, iron ore, and so on. This is a fundamental structural reason.

The other reason is that the ageing of the population is itself going to raise the consumption rate in the country, as older people do not actually produce for their income. They only receive transfer income, yet they still need to consume. So, on a national basis, the consumption rate of the elderly population is going to be very high.

The elderly population currently represents about 10% of the population. In forty years, this will be closer to 30%. This massive increase in the proportion of the elderly population within the total population will lead to an increase in the consumption rate. This will therefore lift consumption as a percentage of GDP in the economy.

That is another angle from which you can say that China will have to switch towards a consumption-driven model. A consumption-driven model will consume fewer commodities, especially hard commodities like steel and iron ore.

The outlook will be very different for each specific commodity. We will have to look through lots of detail and the reasons why the demand-supply balance will lead to a certain trajectory. For example, in the early part of this year, a forecaster explained to me that cement demand will peak in China within three years. This means that, in three years, the absolute level will peak and is then going to decline.

I think steel is going to peak in five years. After that, the absolute level of consumption of steel and iron ore is going to fall in China as a result. Copper will peak in 2025, which is another 13 years, because copper is used much more broadly in the economy, not just in the construction sector. The same goes for aluminium.

Oil is a variable that is much more associated with GDP growth than with construction. We have seen major efforts devoted to the use of alternative energy to replace oil and coal, which are the traditional sources of energy. Nevertheless, that effort is not going to produce very visible results, as coal is still more than 60% of total energy consumption. Oil also has a very large share. Alternative energy is so small to start with, even if it grows by 20% per year, that

I think that the outlook for the ten years to come will still see oil demand growing 4% per year in China, with coal demand probably growing 4–5% per year from a very large base. Thank you.

C. Robertson:

Ivan, can I turn to you and ask bearing in mind this scenario of 8% growth how important is China for you? How important are the other countries that are moving into this demand cycle, such as India?

I. Glasenberg:

Dr. Ma made some very good points, along with your own, which I will try to tie together to explain how we see both the supply and demand sides. You gave us some slides on per capita consumption of various commodities, for example oil and aluminium. You did not include copper or zinc. But those are interesting points and what Dr. Ma said ties in exactly with the way we see it.

One thing you did not mention, Dr. Ma, is that China today consumes 50% of the world’s commodities. If you look at aluminium today, China consumes about 22 million tonnes, alongside approximately 50% of the world’s consumption of copper. This has to be taken into account when we talk about China’s GDP growth.

I agree with you that they slowed things down during the first half of the year. You have to understand this: everyone is panicking about China slowing down in the first half, but this is not like 2008 when the world caused China to slow down. This is a self-inflicted slowdown. Everyone who is worried should know that they can let it go again. We have also seen this with the reserve ratios of the banks, where they have started to relax things.

As you correctly said, there is not the same infrastructure spending as in 2009, but we believe there is going to be greater infrastructure spending towards the latter part of 2012.

Everyone looks at 7–8% GDP growth and thinks that it will not be great for commodities since it is not 9 or 10% like it was before. However, 7.5% on a much bigger base than we had three or four years ago has a big effect on commodities. We are talking about 50% of the world's consumption of commodities.

So demand looks pretty good but, as Dr. Ma says, this is different for certain commodities. When you move further away from infrastructure spending towards consumer spending, this is still good for copper, zinc, and aluminium. I believe infrastructure spending will continue for a bit longer because China potentially still has to urbanize 300–400 million people over the next few years.

If you look at China, the demand is there, as Dr. Ma concurs. So we now have to look at the world and make sure we do not forget India and the other countries that no one really takes into account. Today, Indonesia is a big commodity exporter and the country is experiencing better GDP growth. There is more infrastructure spending to come in Indonesia. However, India is bigger. We do not see India in quite the same way as when we all woke up and noticed the movement of China and the infrastructure spending that happened there in 2002. India is starting to move, not on the same scale, but they can be seen starting their infrastructure spending. A lot of new ports and railways are being built. We see more coal-fired stations being constructed, with massive imports of seaborne steam coal coming into India.

I think India today imports about 80 million tonnes of steam coal, so it is getting a lot bigger. By comparison, China imports about 200 million tonnes of steam coal. So you can see India starting to make progress and move in that direction.

But when you look at commodities, if you focus on China on your slides and consider its ultimate destination, I like the idea of looking at per capita consumption in the Western world and saying, “Why should China eventually not have the same consumption levels?” I do not know how soon they will get there. Indeed, with respect to consumer spending, I am not sure when they are going to get there.

Nevertheless, it is simply going to become like the Western world. China will consume as much aluminium and oil per capita as we consume in the Western world. Your graphs can show how demand would look if China consumed as much copper per capita.

If China were to consume as much aluminium per capita as we do in the Western world, we would have to produce a further 110% of aluminium production in the world. That is massive. I do not know how long that would take, but merely for China to consume as much per capita as the Western world requires another 110%. For oil, I think the figures are that about 37% more oil would have to be produced. In this scenario, we would have to produce 67% more copper just to feed China.

As you correctly said, this ignores India and Indonesia. You are assuming no growth in America or Europe, which could potentially be the case for a while as we wait to see what happens in Europe. This all assumes that nothing else happens in the rest of the world.

Based just on China, can we feed the world’s demand? Let us hope that we do not witness a break-up of Europe, otherwise the whole scenario would go to pieces because you are not going to get growth anyway. So we have to hope that Europe will remain stable.

Assuming that we do have this scenario in China and these other countries, the world is going to have to look at how to produce these commodities. Just focusing on copper, 67% more copper production in the world is going to be extremely difficult to achieve. This is because we have been producing copper, zinc and many other commodities, such as coal, in easier countries in the world, where there is existing infrastructure.

We have been in Chile, Peru, Australia, and South Africa. We have been in easy infrastructure environments where infrastructure has been built. In order to increase global supply of these commodities today, we would have to go to difficult countries. We have always gone to the easy countries first, where there was infrastructure. These were often first world countries. Today, you have to go to more difficult countries. Where are we going and where is China going? It is starting to ensure that they have a reliable supplier, as Japan did in the 1960s.

Japan did this. They went to Australia's commodity industry in the 1960s. All the development that occurred in Australia was pushed by the Japanese. Remember that, at the time, MITI gave cheap loans to all the trading companies to start investing in Australia.

So, we have to go to the difficult countries. Where are the big difficult countries where there are big mineral resources? In Africa. Africa is not an easy continent. It lacks infrastructure. Most of the countries have been through wars and are rehabilitating. As a company, we are very active in Africa and it is not easy. There are problems, such as shortages of power supply. There is not sufficient power supply. There is a lack of infrastructure, ports, railways, and a good road system.

If you are to think about producing 67% more copper in the world, you have to produce 30% more copper today. It is going to be hard to get there. A lot has to happen in Africa. Let us hope we can do it, for otherwise the world is going to be short of supply.

We can go through this commodity by commodity, but as we talked about for aluminium a bit, the power industry is central to the situation. Where are the key power industry situations in the world? Perhaps shale gas in America will provide cheap power and America will become a big industrial nation again, as well as a major aluminium producer. But with most of these commodities, I think that if we have this demand scenario, we have to concentrate on supply. I believe it is going to be difficult, for the world is going to have a big problem with inflation.

C. Robertson:

I agree that that is still a threat. If the Fed plays its cards right, it will create a bit of inflation to get rid of some of its debt. You have raised a whole host of issues which I think, Vladislav, you will be very well suited to talk about, given the fact that your company is not just the largest aluminium company in the world, but also a pioneer in terms of its listing in Hong Kong. In addition, it has gone down the route of investing in Africa.

Our view on Africa is that you are seeing these mining projects and that growth in a lot of countries is getting far more stable, at around 7% per year. Governments are getting ever better, so this is an improving story.

You have that experience as well. How do you see the China aspect from your perspective? How important is that? How much do you watch the Chinese data every month, like I do? To what extent do you see opportunities in other markets like India? Also, if you could address the supply issue as well, that would be very helpful.

V. Soloviev:

Thank you. Well, why are we talking so much about China? If you look at GDP growth in the world, you have 5% growth in developing economies and 2% in the advanced economies. At the same time, we had at least 9% growth in China and, even today, when it is slowing down, the new projection for the second half of the year is 7.5%, which is huge. 7.5% is at least two or three times higher than the advanced economies, which is why China is so important today.

This slide shows that, in China, the level of urbanization is still at 40–50%, compared to 70–80% in the advanced economies. As you said, the main driver for this urbanization process is infrastructure growth. I have a number of figures that make it possible to compare China's infrastructure with that of the USA. The number of airports in China today is 175, compared to 5,194 in the USA. There is a huge difference between these two figures. China has 429 km of road per thousand square metres, as opposed to 710 in the USA. The same is true for the railways, with 10.02 in China and 24.5 for the USA. This all shows the huge potential of infrastructure growth in China.

If we look at the situation today, it is not a question of immediate growth. It is a question of reducing supply. The current situation in the aluminium market is there is a huge amount of metal sitting in warehouses that could be consumed within the next quarter without any production. That is why the main focus for old producers should now be reducing their production in order to keep prices stable. At the current level of aluminium prices, at least 30% or 40% of all smelters cannot make a profit.

That is why China is now trying to employ new measures in order to support its local producers and is reducing its electricity tariffs in some southern provinces. In my view, that is the wrong approach. We should not support unprofitable smelters. It is better to keep them slowing down, shut them down or mothball them to make the market feel more healthy.

If we do that in the short term, we will find that it will hurt us in the long term. I see at least three main problems that are going to occur in the long term because of this crisis.

First of all, there is energy. Energy is a very important resource for the producers of aluminium or any other commodity and we definitely foresee the lack of this resource. This is not only because of a lack of oil or coal, but also because of environmental problems.

If you look at the situation in China in regards to environmental standards, I think China will face a lot of problems in the near future. That is why, as producers, we should look in more detail at the possibility of finding clean sources of energy to produce commodities, like hydro or perhaps gas.

The situation with gas in the USA shows that gas and electricity prices in parts of the USA are now lower than in Russia. The Russian government should definitely look at this and do something in relation to energy reform in the near future.

Another issue that could be a problem for future growth and meeting future demand is that of resources. 60% of the bauxite exported to China comes from Indonesia. If

Indonesia were to impose an export ban on these resources tomorrow, this would have an immediate impact on everything, from prices to the cost of production.

Africa is not the easy solution. It is a big continent and, if we look at the real situation, it is not easy to go to Africa and find any new possibilities for the development of bauxite, iron ore, or anything else. If you look at Guinea or Nigeria, there is instability. That is why it is not quick. If the global state of play were to change tomorrow and the world were to face a situation in which it wanted to consume twice as much copper, aluminium or zinc, we would definitely not be able to meet this demand. It is impossible to meet such demand in the next two, three, or even five years.

The third issue concerns investment. We see today that investment is decreasing and we are mothballing our capacity. Again, if someone were to ask us to ramp up immediately, there would be a gap for two, three, or even five years.

C. Robertson:

I am very tempted to ask Vladislav Soloviev what are the two or three things governments should be doing to help. Before we do that, I just want to shift to one more graph, which looks at agriculture.

We have talked about how the Chinese are becoming more like Westerners as they have become richer. One of the ways they are becoming more Western is that they are starting to eat more meat. I looked at the numbers for this the other day. The average American eats 120 kilogrammes of meat per year, which is two kilogrammes of meat per week.

We are talking about the average here. This means that babies are also eating two kilogrammes of meat every week, which is quite a high-protein diet. At the moment, the Chinese are on about 40 to 50 kilogrammes and we cannot be sure how they will progress.

It is possible that they will become like the Japanese, who only eat 40 or 50 kilogrammes of meat as well. They eat a lot of fish on the side, which does not count as meat in the same way. If we look at Taiwan and Hong Kong, we see the

Chinese are eating 120 kilogrammes of meat. So, once the Chinese get rich, they eat as much as the Americans.

Aside from this high-protein diet, what I am showing you in these charts here is that global stocks, say of wheat, used to be around 200 million tonnes. The big black area in the top left-hand chart represents China's stockpiles of wheat. They have shrunk dramatically.

China has already become an importer of soybeans. This year, it started importing corn. When I go to Chinese officials and ask what their harvest situation is, explaining that I cannot find the data, they say that they do not release bad data.

It is difficult to know what the stock situation is, but we do know that it is less than it was. We know that agricultural food supply is also a problem. We saw this was true in the Arab Spring, as well as in 2006.

Dominic Barton is from McKinsey, who talk to everybody and meet everyone. They have a fantastic research institute, which is threatening to put some of us economists out of business. Dominic, I just wondered what your thoughts were on all the issues we have discussed, on resource security and perhaps also on food security.

D. Barton:

Thank you, Charles. I might try to focus my comments on three areas. One of these is the context. I am just going to pile onto what everyone else has said here. Our assessment is that we are going to be looking at a long boom cycle in commodities over time. That is a pretty general statement to make, but I think that, going back to your argument about strategists and economists, I am extremely bullish. Whether this will take 15 years, seven years or nine years is a matter for the experts. The thing that we look at in particular is urbanization. There are 1.2 million people per week moving from rural areas to cities around the world. This is primarily happening in Asia, but also in Africa and South America. These people are moving come hell or high water. Whatever Europe does or does not do, they are moving.

People that have lived in China will know that the Party has tried to stop and restrict migration from rural areas to cities. You simply cannot do it. Shanghai gets 500,000 new people every year, whether they like it or not.

This is a big force for change in terms of income increases, infrastructure requirements, and so forth. In our view, this is going to continue for at least another 25 years. This is a long move.

Then there are all the factors that you mentioned, with which we completely agree. On infrastructure, I completely agree with what you are saying. Our estimate is that, in Asia, infrastructure requirements alone will be USD 10 trillion over the next 10 years. USD 10 trillion. This is a massive opportunity.

Even in China, when people say how many airports there are, I would actually go back to your numbers. We still think there is a long way to go, even though there will obviously be more of a consumption orientation to it.

So I just want to say that we have a strong sense of that. I would also say that I think we are at the marginal edge of where we are going to find these resources to be able to supply this. I am going to focus a little more on the food and water side.

In our assessment, the food industry looks like the mining industry did 40 years ago. I should be careful about what I say with the experts here, but I mean this with respect to the fragmentation and the opportunities. I think we are going to see some very significant changes in the food value chain over time. That is why I think we are seeing some interesting acquisitions going on right now globally.

We are seeing the formation of Brazil Foods, which is becoming a global champion food company by putting a number of different players together to try to get the scale to achieve this. This is because of what you showed on the charts, Charles, where you can see the amount of arable land that we have on the supply side and then the shift from grains to meat in consumption. This is going to be significant.

A related matter is water. We think that water is going to become a very scarce resource. Our estimates are that, if we use water in the same way that we do now, obviously a very silly assumption, as I am sure that we will use the technology that we have, but we have looked at every basin on the planet, and if we did use it the way we do now, we would have 40% excess demand over supply by 2030. A 40% excess is a big problem.

Water is not priced and there are all sorts of issues around that. About 30% of the world's population lives in places where today there is already a 50% excess demand versus supply. Food and water obviously go together. I cannot remember the translation, but I think a hamburger represents so many hundred litres of water. These things are all related.

This is also a matter of energy. Over a 60-year period, we have seen somewhat of a decline in commodity prices. I believe it is going to shift the other way for quite a long period of time. I would just put it out there that, for the next 50 years, we are going to see a shift out that way.

We are also going to see this with real interest rates. Savings versus investment has been declining in the last 30 years, primarily because of the Asian savers. Now, when you start to put money into infrastructure, whether it reaches USD 10 trillion or not, we think that that is going to shift. The cost of capital is hence also going to increase over time.

The last thing I would say on that is that we should never underestimate the role of technology. We know about Malthus and the Club of Rome saying that we are not going to have enough land and that we will move when technology comes in. But the technology is going to have to work extremely hard to be able to try and cover the gaps that we have.

The notion of resource productivity, how efficiently we use our resources, is going to be important. When you look at the food chart, we have estimated that the world wastes 20–30% of its food due to wastage. There is no cold chain, as it is perishable items and so forth that go through it. So there is a lot of wastage just in that one particular area.

That is not going to solve the gap, but I think it is an area on which we need to work.

C. Robinson:

Again, there are a number of issues here. I am thinking about governments today. The reason Europe is in crisis is because it is not taxing enough or it is spending too much. Either way, there is a big budget deficit to fill. That is a big issue for the USA as well.

I would like to ask Ivan Glasenberg and Vladislav Soloviev about what governments can do: but you are not allowed to suggest cutting taxes on the mining sector.

Secondly, there is an issue here that they may have to raise tariffs, for example on electricity in Russia, in order to increase the investment incentives for foreigners. What can governments do?

I. Glasenberg:

This is a big issue facing the world today. You are correct in saying that the world of commodities has been like that for the last 60 years. People were investing in the commodities sector in Australia in the 1960s, when American industrialization occurred in the 1930s and post-World War II, when we were developing supply in various countries. But for whatever reason, the world oversupplied in the commodities sector. The mining industry has a strange way of behaving, in that it loves building. It has always built. If the resource was there, the mining industry never looked at return on capital. In Chile you had a lot of copper and in Australia you had a lot of iron ore and coal. This is an argument we have been having since we IPO’d our company. The industry was not focused on return on capital and, for whatever reason, it loved building mines. It was building lots of mines and we had an oversupply for many years. When the oil companies went into the coal sector, they oversupplied. During this time, the coal industry was in distress. However, the governments in these countries were very happy for people to invest. It was great because they were building railways, infrastructure, and ports and they were paying taxes and royalties. The government was thus very comfortable. They allowed them to dig the stuff out of the ground. They said there was no value in it because they could see that the companies were not making a return. So they let them dig it out of the ground, do what they wanted to do and build the infrastructure, which was pretty good for the country.

The rules were set and when everyone looked at their investment decision models, they knew what type of taxes and royalties they were playing with.

Now, since this boom in demand in China, the commodity companies have done very well and were making decent returns for the first time. Nevertheless, if you average over the last 20 or 30 years, mining companies have not made good returns.

But as soon as they started making these so-called ‘superprofits’, which they needed to make up for the previous disastrous years, the government started taxing them and changing the taxes. I have had a lot of discussions with people about how they invested in certain countries. People are uncertain about Kazakhstan, Colombia, the Congo, Zambia, and many different countries, for example Russia. The Western world is not used to investments in these countries.

I got faced with a lot of questions during the IPO of Glencore. People said we were a risky company, as we had invested in these types of countries and people were not sure what happens there and whether there were changes in the taxes, and royalties, etc. Yet the first ones to increase taxes on the mining industry were first world countries. Who does every country in the world with a budget deficit or a hole to fill in the budget deficit look to tax? They do not want to tax the people because they have votes. They do not want to hurt them, so they tax the big mining companies.

You even had Australia, a first world country, put a 30% tax on mining companies. We fought them, there was a big debate, and we reduced it. Had they said, “If you invest in our country, we are going to put a 30% mineral resource tax on you”, that would have been fine, because then you would have known what you were looking at. On the contrary, they told all the existing mines that they were going to impose a 30% mineral resource tax. That is the same as nationalizing 30% of your assets.

We talk about nationalization in the third world, but it occurs in the first world. Chile changed its royalties. We saw Argentina change the export tax and we just had the

nationalization of YPF, which is making companies scared to invest in those countries.
We are talking about how countries encourage you to invest. We just had a zinc and tin mine in Bolivia that was nationalized. Countries are not doing much today. If you look across the world, they are doing the opposite of promoting investment. People are now scared of this industry because, if you do start making money, you are going to get taxed more. That is why there is not as much growth as the world would like to see. However, certain countries in Africa are encouraging investment and they are not changing the rules all the time. Why are they doing that? The reason is that we are very important to their country.
For example, we have invested about USD 3 billion into the Congo up to now, but we are very important to them so the country is not going to change, or so I hope. It does not look like it, as we are so important to the country. We build sewers and hospitals and pay taxes and royalties. That is a big part of their GDP.
They really see the benefit of our presence, so I hope that they are not going to change the rules as quickly as first world countries have done. So that is a bit better. But if you look across the world today, countries are not really doing enough to encourage investment.
Even if we talk about Russia, they should promote foreign investment in the country more. It is getting easier, but there are certainly a lot of reserves in Russia that should be exploited.
Do local mining companies have the investment or the capital to do it? Do they have the potential capital to do it? Some do and some do not, but you could promote greater investment in the mining industry in Russia to bring more foreign companies here to invest. We invested and are happy here. If there were greater promotion, we could invest further.

C. Robertson:

So one thing is to welcome investment, but I asked for two or three things. Just briefly, what are two or three things that governments should do? We have to welcome investment and encourage foreign investment into Russia. What one or two other things do you think they could do?

I. Glasenberg:

Do not change the rules on us once we are in. Do not change your taxes and do not change your royalties. When we do create models for future investment, we want to know everything before we put our capital in. When you invest your capital, you have to predict commodity prices. That is hard enough. But you do not want to have to start predicting what the taxes are going to be.

As of today, taxes and royalties are a particular percent. Do not change this, because then we will miscalculate. Make things more stable because we are putting a lot of capital in, so let us ensure we get the right returns for our investors.

V. Soloviev:

I agree with Ivan. We definitely see a trend of nationalization in different countries. It does not matter if it is a developing country or an advanced country. In Guinea, in particular, we had the same issue. In the new Mining Code, the government wants a 15% share in any new item or any old concessions. The problem is that it was a separate cycle four years ago, in 2007. Today the situation has changed. They do not understand that the situation is absolutely different today than three years ago.

That is why, if they follow this route, they will not only decrease investment, but also stop it. They will decrease it because a number of companies now want to pull out of Africa. Only Chinese companies continue to enter Africa, perhaps because they have a greater ability to restrict their losses.

To answer your question: what else could the government do in order to keep and promote investment? I think the main thing governments should do is to invest in infrastructure. Looking at Russia in particular, as a country, we were lucky to have vast infrastructure in railways and the energy sector. But today we face a situation where this infrastructure is getting older and we have to replace it and expand it.

For example, we have the ability to transport a maximum of 100 million tonnes of goods to the eastern part of Russia. If you compare this with China which, correct me if I am wrong, imports two billion tonnes of iron ore and coal, you can see that 100 million tonnes of infrastructure capacity for Russia to transport goods, coal, etc. from the centre of Russia to the East is nothing.

This means that the country definitely has to make a huge investment in railway infrastructure, energy infrastructure, and energy production.

The main issue is how to do this. If the government does this via a tariff, it will kill the industry. Over the last three years, the energy tariff in Russia has increased dramatically by 50 to 70% and, in some regions, even by as much as 100%. But, globally speaking, we as a producer see there are now areas where we can place our production at much lower tariffs. We did not even dream of this five years ago.

For example, I can now build a smelter in Canada and have a tariff of 3%. We do not even have this tariff in the eastern part of Russia today. That is a problem. So if you want stable growth and investment you definitely should invest in infrastructure, not through tariffs but through some kind of resource and via the budget, as only this can enable your country to grow and bring in new companies, new investments and new buildings.

Stability is important. You should not change the rules. Within the next 5–10 years, if the Russian government pays more attention to infrastructure issues, such as the development of Siberia, it will definitely bring in more investment.

I. Glasenberg:

I think that you are correct that infrastructure is important and, as you say, Russia has to do that, and they are doing it in a way. But China is quite interesting. You talk about it coming to Africa and we definitely see it in the Congo and areas like that, for example in Angola.

The Chinese have not invested as heavily in mines in Africa as I thought they would, considering their need for supplies. It seems to me that the Chinese are quite cleverly allowing mining companies to invest. I always thought the Chinese would negotiate for the big mining companies to buy 10, 15, or 20%, to have a hedge against moving commodity prices. But they have not done that. They clearly seem to have taken the view that their only concern is their need for supplies. The numbers about which we have been talking show that they have to get more commodities into China.

How are they going to do that? They could go build mines and use Africa as the new growth. They could build the mines in Africa, which they have done in a smaller way than I would have thought. They have been building infrastructure in Africa. You see the Chinese building roads in the Congo and starting to develop railway lines. You see them in Angola, where they are doing all the construction work of infrastructure, such as the port expansions.

That is quite clever because they are facilitating the infrastructure for us mining companies to be able to utilize, which is giving more supply to China. As Robert says, infrastructure is important and hopefully the Chinese will keep building more infrastructure in Africa, which will make it easier for us to get our commodities out.

Dr. J. Ma:

If I could just add a little footnote on China building infrastructure in Africa. I think it not only benefits the mining sector, which will be using the infrastructure in Africa, but also the infrastructure companies in China.

This is because, in the example of the railway companies, they are all exporting their services into Africa, meaning that they are exporting the construction services and also the equipment makers, which will supply the power equipment, telecoms equipment and railway equipment. They are all going to be selling these goods in Africa. So China is now exporting a package of production and services to Africa.

I think that the consistency among different elements of this programme needs to be ensured by the government, as it is very difficult to guarantee on an individual basis at the company level. But let me come back to the demand issue, which I think was interestingly mentioned by Vladislav, in relation to the infrastructure needs in China.

You compared some numbers for airports and so on between China and the USA. We looked at that before. If you simply look at the number of airports in China and the USA, it tends to exaggerate the future demand in China because the population densities of China and the USA are very different. In China, the density is at least five times higher than the USA. This means that you do not need as many airports, as you do not have a lot of places that are very remote. So I think China certainly does not need the same number of airports as in the USA.

This does not mean that China will not spend. China will continue to build infrastructure, like airports, roads and subways. This does not mean that the level of total investment has to go up infinitely every year. In fact, it can have a very small increase in the coming few years and will probably reach a plateau at some point in time, maybe five years or 10 years later. You can then continue to build a lot more airports, as long as they stay at that particular level on an annual basis.

In that sense, I think the situation is less bullish than it appears from the comparison of the number of airports in China and the USA, particularly for steel and iron ore. On the soft commodity side especially, that is to say soybeans and other agriculture products, I am very bullish.

I think a fundamental reason, again related to demographics, is that Chinese wage rates are now growing 13% per year and farmers are looking for similar income growth as well. Otherwise they wonder why should they stay on the farm, if their brothers and sisters are moving to the city and getting 13% wage increases?

If they are looking for 10% income growth, who is going to supply that income growth? It has to be agricultural prices, unless the government has an infinite amount of subsidies for them, which is impossible from a fiscal perspective. Let us be conservative and say farmers will have to enjoy a 7% increase in agricultural prices per year to support income growth, just for social equity purposes.

That is very bullish for the global agricultural markets because, eventually, Chinese agriculture prices will be much higher than the global markets. I do not think that the rest of the world, Brazil, Australia or New Zealand, will enjoy 7% agricultural price growth on a multi-decade basis.

In that sense, China will have to import a lot more from the rest of the world, which will therefore push up global agriculture prices as well.

D. Barton:

I just have a couple of comments. I want to pick up on the global stability issue. I want to reinforce this point because, within the USD 10 trillion I talked about, Indonesia, for example, is very keen to build more infrastructure. It is wondering why people with pension funds do not put their money in there.

This is because everyone is afraid that they will change the regulations when they put the money in, as happened in the 1990s. There is this fear of change. When we are in a commodity cycle where we have scarcity of supply, we are going to have to go into remote places. You mentioned Africa. There is also North Korea and the ocean. There are technologists who are looking at how they can suck iron ore up from a thousand metres below the sea. I do not know if that is even possible.

However, if people are to be able to make that type of capital investment and do that kind of thing, I do not think that governments really realize the true impact of uncertainty over what is going on. I think it is particularly annoying when we have this big unemployment issue in places like Europe – and I do not mean in mining – and it is taking place on the infrastructure side. These countries also need an infrastructure revamp, which would create a huge number of jobs.

There is a lot of money in pension funds. People want to put it in there. But again you have the issue of the stability of the regulatory structure. I do not think that that can be emphasized enough in terms of where things are.

If we do not get the right relationship between the government and the private sector, you are looking at a spike in food prices. The thing about these industries is that it is priced on the marginal cost and that cost is going up. It is not going to be a nice smooth rise to which we will all be able to adjust.

Again, I defer to you all, but my sense is that it is not going to be a nice smooth rise and, if one thing frightens countries about instability, it is dramatically raising commodity prices. We are also seeing this affect the profits of regular consumer goods companies. I think this is a stability issue with many dimensions.

C. Robertson:

If I could just add a comment at this point, I think you will all be very popular with President Putin, who is emphasizing stability as one of the benefits for the next few years.

I am also thinking that what we have been talking about here is risk and the change in the perception of risk. You are talking about some of the risks of operating in Africa. That is true, but I think what has also happened is that we have seen risks rise in the West.

I am conscious of this from a markets perspective because I feel investors are making a mistake by buying US treasuries at 1–2% when Russian rouble bonds are yielding 8%. When Russian debt is 10% of GDP and America is at nearly 100%, if that is not a mistake then buying German bonds, given the potential liability of Spain, possibly is.

I feel that the risk equation has changed. You are suggesting that this has also been true in the mining sector. There have been Western governments letting you down, as well as some emerging market governments.

But there is also a theme here in that you are still moving to Africa. For food, half the uncultivated land in the world is, I believe, in Africa. This will help the investment story and, as countries get richer, they usually become more stable, not more unpredictable.

I am very happy to open this up to any questions from the audience. There are hands raised already. Obviously, feel free to respond.

From the floor:

Good afternoon, my name is Wallace Kantai, from NTV in Kenya. It strikes me that you are all talking about Africa as one entity. Africa is now 54 different countries, with different growth patterns and different patterns of stability, not just in terms of where we are but also in how these countries are combining: there is the East African Community and the Southern African Development Community. It is such a different place even within individual countries. It is such a different place to operate in, depending on where you go and what you are doing, that for me to hear you all speaking about Africa, whether in positive or negative terms, as one entity, quite annoys me.

C. Robertson:

That is totally fair. You can distinguish between seven countries that have recently seen changes of government. I am not going to name them, but some are leaning towards a more left-wing perspective. This is perhaps more concerning for the miners and more welcome for others. You can talk about Sierra Leone, where 36% GDP growth is forecast. This is the second highest in the world today after Libya, another African country, which has 70% GDP growth. So that is absolutely a fair criticism.

I. Glasenberg:

When we talk about Africa, you have to remember that we have been complimentary of Africa today. When it comes to respect for taxes and royalties, Africa has not had many surprise changes for us.

I know that there have been certain changes in Guinea with the new government, but, as a company investing in Africa, we have not endured big changes. Africa has been pretty good to us in that sense.

What I was saying about Africa as a whole is that Africa – besides South Africa – has not developed its commodity industry. It is new now and the world knows they have to go and develop Africa. It is important as this is where the commodities sit. Most of the countries in Africa are rich in commodities, albeit different types of commodities.

Today, we are active in about 15 countries in Africa. They are all different. They are all very rich in different commodities. We are active in Equatorial Guinea, Burkina

Faso, Mauritania, Cameroon, Zambia, Congo and Congo-Brazzaville, so we are in all parts of Africa, which is very rich in commodities.

But what Africa shares in common, and this is when I talk about Africa as one entity, is a lack of infrastructure. They do not have sufficient infrastructure to export their commodities.

In South Africa, they have developed infrastructure because they had already developed mining in the country. In fact, as you know, they have mined too much of their commodity and gold production is down. It is less of a mining country than it used to be. I think mining now contributes less than 15% of GDP, whereas it used to be much higher.

Africa as a whole is short of infrastructure to export their commodities and that is when I talk about Africa as a common entity, on infrastructure.

From the audience:

A question for Mr. Glasenberg. You just mentioned Africa and infrastructure. China has a model for investing in mining, the I-for-R model. Have you and Glencore considered this kind of investment model, where you invest in infrastructure and get access to their resources, since infrastructure is a bottleneck? Today, at the Vnesheconombank (VEB) Session, we discussed the lack of funding for infrastructure in BRICs economies, including South Africa, with the heads of Ex-Im banks and the EBRD. I came across this model in preparation for this session and I am just wondering if you might consider something like this. Thank you.

I. Glasenberg:

We are not an infrastructure company. That is the difference. The Chinese are doing it in Africa, I know that. In the Congo, they have agreed to invest in certain infrastructure projects and even in infrastructure that has nothing to do with the mining industry. They were given certain mining resources in exchange for the infrastructure. China is developing all the roads in Kinshasa and they were given resources in exchange for the infrastructure. So yes, that model does sort of work.

However, we at Glencore are a mining company. I do not know anything about building roads. Maybe one day in the future, when the company is big enough, we will also look at infrastructure. We put our expertise into mining and rely on someone else to develop the infrastructure.

This is a good point, because the Chinese are active in Africa. But I was talking in the UK the other day and people were discussing Africa. The UK believes that they should be involved in Africa because the UK contributes aid to certain African countries. So I was talking to some people in the United Kingdom the other day, and we mentioned that they have a very good railway engineering company. I suggested they come to Africa and help us develop the rail line. They are producing a lot of profit in the Congo. Growth in the Congo is enormous, not only for Glencore. Freeport-McMoRan and the Chinese have investments there. So you have different mining companies who have invested there.

I told them to come to Africa and build the infrastructure, as they would have a guaranteed return because we would give them a take-or-pay agreement. They could tell us what return they need and we would give them a tonnage commitment on a take-or-pay basis if they built the infrastructure for us.

For Glencore, I think that this is the way we would rather do it. Let someone else build it and we will give them the commitment on the take-or-pay. That is how South Africa developed the Richards Bay coal line and Richards Bay port. It was developed by someone else. Banks put in the money and commitment and they were given a take-or-pay agreement. I like that type of model agreement.

From the audience:

I think Glencore has more competence because when this is carried out by the government, there is no expertise or there is corruption.

I. Glasenberg:

In those parts of Africa, the government, I must say, is open. They are open for you to bring in other people. The Congo currently has a shortage of power, so the government was happy for us to bring in an outsider whom we pre-financed. They allowed us to put in USD 300 million to give to the local power station to bring in an outsider to develop it. So yes, we are working on that.

C. Robertson:

I would like to ask one more negative, scary economist question and then we will try to finish on something a little bit more fun.

If Spain leaves the eurozone in one or two years because the population are out on the streets, eurozone GDP will shrink 5%. My question would be this: do you think China, in that circumstance, would be prepared to inject another 30% of GDP into new lending in that circumstance, where the world is going through a Lehman Brothers II moment?

Dr. J. Ma:

You are essentially asking, “What if the Lehman Brothers crisis repeats?” In the early part of 2009, China experienced a 26% decline in exports because of a contraction in global demand and, more importantly, there was a freezing of credit in the global financial system. Suppose that happens again. For a couple of reasons, I do not think China will stimulate the economy in the same way as it did in 2009. One is that it learned a lesson, as the massive stimulus package in 2009 resulted in an inflation bubble. Moreover, a lot of NPLs were created by overspending with some of the infrastructure companies. These lessons are very clear right now and have been recognized at the policy-making level. The clear message is that we are not going to repeat the programme again. This was stated officially by NDRC officials a couple of months ago.

Now, what if this external shock happens again? What can the government do without this programme? I think there are a few things they can potentially do.

Number one, they can continue to cut interest rates. So far, they have cut rates once, but I think, if it is a much bigger shock, three or four times is possible.

Secondly, on the fiscal side, China still has scope for some stimulus. Not four trillion, but a few hundred billion is possible.
In terms of lending, according to my calculations, the actual increase in lending in 2009 was five trillion above the original plan they made before they foresaw the crisis. I think that, even if a Lehman type of crisis were to occur, there would be a small fraction of that incremental part.
In a sense, we are not going to see the same pace of recovery in the economy, because the stimulus would be much smaller. In addition, on a sequential basis, we estimated last time that the trough was around 2–3% of annualized GDP, which went up to about 15% within two quarters. That is how a strong stimulus works. Next time, if there is a sharp external shock, what we would need would be 3–4% recovery within a few quarters. That means the external benefits for other countries would also be smaller.

C. Robertson:
Perhaps commodity workers recognize that the world would not end and we can see that it did not end in 2008. So we would not fall down as much, but are you saying you would not expect such a rebound on the back of what China's stimulus may give in that worst-case scenario?

Dr. J. Ma:
I guess there will be a clear consensus that China will not be putting out a massive programme.

C. Robertson:
This is not the worst-case scenario at the moment.

Dr. J. Ma:

Even if the worst-case scenario reoccurs, I think there will be a consensus even before China does something. It is very easy to reach a consensus, and China will not repeat 2009.

C. Robertson:
Despite the threat to stability.

Dr. J. Ma:
In fact, one concern with stability is unemployment, which was overblown in 2009. We had a very short period during which about 20 million people were laid off in the export sector, but there was virtually no instability resulting from that short-term unemployment pressure.

Indeed, a lot of people were re-employed, with some finding jobs in infrastructure and others returning to their farms. Most farmers have social security in the form of having a farm. That is a very important institutional element that prevented unemployment from exploding into a social problem in China. We continue to have that in place.

C. Robertson:
Dominic, would you like to give your closing remarks?

D. Barton:
Pivoting off what you were saying, Jun, if Spain goes out and it dips, given what we are saying about where commodities were, I would be buying commodities because I think it is going to be a short-term dip.

Going back to the deeper gravitational forces of the 1.2 million people a week that are moving, this is not just in China. Indonesia now has a population of 250 million people. We have talked about India: there is also Vietnam and Bangladesh. There is a shift. Consumption levels in China are 36% of GDP. I think that, with the fiscal measures that you put in with more health care security, which would make people spend more, there is still room.

I think we have to look at the long term here, even though I am not suggesting the short term will be fun. It will be painful, but we are on an inevitable rising curve and I do not think that Spain leaving and the breakdown of the euro is going to collapse the system completely, despite the volatility.

C. Robertson:

To add to that point, I think the whole point of Spain leaving the euro would be the boost to its economy that would come two years later and the jobs that would get created. Manufacturing would start to be competitive again. That is the advantage.

I. Glasenberg:

I think that is correct. If you just look at the numbers, we were all talking about the ‘stronger for longer’ scenario before the 2008 crisis. What is there and why are we ‘stronger for longer’?

Whether or not China starts, India and Indonesia will come. Why should per capita consumption of various commodities not rise? Everyone in the world wants to live at the same standard. They have learned what it is like to live at this better standard and they want to reach it. Different countries are going to take their time to get there, so the demand for commodities will continue in the so-called ‘stronger for longer’ scenario.

We will get blips, as we experienced in 2008. You have the demand curve and then this massive blip. That is what happened. As we said, if the euro does break up, I have no idea how big that blip is going to be. Is it going to be two years or three years? I am no economist but we will get blips along the way.

Those blips actually enhance commodity prices going forward. I think we will soon see that happen now if we do not have another problem like 2008. When you get these blips, people stop building and stop increasing supply.

Even Vladislav remembers what we did with Rusal in 2008. We cut production expansions we were working on. We put it all on hold. Everything was stopped. What happens is that, when the world starts catching up, you do not have the new supply coming. These crises exacerbate the problem later on because people stop building.

What is happening today is that investors are now getting tired of the poor returns on investment and they are stopping the mining companies from building new big operations. Investors are saying no to all these new projects that are meant to be coming, as they are not giving them a return. That is going to slow things down. Eventually, investors are going to say: we needed those projects and we should not have slowed them. But if the mining companies do not keep investing, I think the Chinese will eventually realize that they have to do it.

V. Soloviev:

I think it does not matter what is happening with Spain. If you look at the fundamentals, I would still purchase commodities. If you look at the different figures: the Chinese figures, Indian figures or those for Indonesia, all the figures show us that there is huge demand in these countries. This will definitely come in the near future.

That is why, if you look at the different types of investments, commodities are still the best. That is why I think this will happen.

C. Robertson:

To sum up, I think President Putin has a point when he talks about stability. It seems to be something that the mining industry at least likes. There are going to be opportunities in Africa. China hopefully will have its soft landing.

I would just like to thank the panel, who have been brilliant. Thank you so much for all your input.