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Moderator: Erik Berglof

MR BERGLOF: Welcome to this session. Thank you for coming on such a beautiful morning in such a beautiful city and for not going on the spouses' programme.

We are going to talk about a very important topic to our region. The region is growing fast, and it is tempting to be content with that. Of course, a number of the issues we are now facing may be of a short-term nature. There is the credit squeeze, which is putting a lot of pressure on financial institutions. There is inflation, particularly food and energy price inflation. All these issues are very urgent and it is easy to forget about the longer term and the issues that create conditions for sustainable growth. That is going to be the theme of our discussion in this panel today, how to get the conditions to sustain these very high levels of growth and how to make sure that the region, which has on the whole been very successful in competing in the international markets; central and eastern Europe in particular has been remarkably successful in its international competitiveness. Also, south east Europe is doing quite well, as is the CIS.

We have a very good panel. I will introduce them one at a time as they come forward with their presentations. I am particularly glad to welcome Professor Ricardo Hausmann, who is one of the leading thinkers in this area. He is not just a thinker; he is someone who has been deeply involved in policy. He has been going back and forth between his academic career and being deeply involved in policy making. He was Minister of Planning in Venezuela, something we do not see a lot of in the region at the moment, and also a member of the Board of the Central Bank in Venezuela. He was the first Chief Economist of the Inter-American Development Bank. He is now Director of one of the most creative centres of thinking on development, the Centre for International Development at Harvard. His contributions to the topic we are talking about today have been particularly thought-provoking. He challenges us to think more deeply about what it is that really determines a country's ability to diversify its economy, to increase the quality of what it produces. We talk about general things like skill content in our country exports and diversification, but in his analysis, as you will see shortly, he has brought out a lot of issues that we need to think about.

PROFESSOR RICARDO HAUSMANN: It is a pleasure to be here with you. Thank you very much for your kind introduction. As they say, my father would have appreciated it and my mother would have believed it.

Today I am going to talk about the challenge of long-run growth in a very particular dimension, and I am happy that Erik has put aside the issues of the day, of inflation and energy pricing and so on, so that we can focus on this more structural aspect.

Let me describe the growth process in a slightly different way. The typical way economists have tended to think of growth is the increase in output per person, more “stuff” per worker. I am going to stress that, as countries grow richer, they do not just produce more of the same; they change what they do. This chart shows in the horizontal axis the income per capita of countries and in the vertical axis the income per capita of the countries they compete with, product by product. We take each product, calculate the income per capita of the countries that export that product, and then look at the basket of products that each country exports and calculate how rich the countries you are competing with in global markets are.

I would like to make three points on this chart. The first one is a very simple one. It is that poor countries export what other poor countries export and rich countries export what other rich countries export. That is no surprise. The second point is that one implication of this chart is that, as poor countries become richer, they do not export the same things; they change their areas of comparative advantage as they grow. The third point is a little more subtle but I think even more powerful. Imagine a vertical line, that is, imagine you are considering a country at a certain level of income. Does it matter if it competes with richer countries or with poorer countries? Another way of saying it is, does it matter if its export package is more or less sophisticated?

This next chart shows that it does matter. The horizontal axis now shows how sophisticated the export package of the country was in 1992. The vertical axis shows how much it grew in the subsequent 12 years. The idea is, if your initial export package was more sophisticated, your future growth is more accelerated. In a way,

countries become what they export. They converge with the level of income of their competitors. This is an important idea.

We look at the countries in the region and ask ourselves whether their export packages are more or less sophisticated than you would have expected given their level of income. The good news is that the majority of them are above the regression line. They have a more sophisticated export package than you would have expected given their current level of income, and that should help them grow in the future. This is not so to the same extent for all of them. For example, Poland is 30 per cent above the regression line, while countries like Kazakhstan, Russia, Macedonia and Mongolia are below the regression line. So you would expect that, given where they are in their export package, that is not going to be a dynamic source of future growth.

Now I want to look at how countries change what they export, and I am going to think of products as being like trees in a forest. I have already told you that poor countries export poor country goods, so they must be low living in the poor part of the forest, and rich countries export rich country goods, so they must be in the rich part of the forest. What is a country in this metaphor? A country is a collection of firms, and firms are like monkeys. Monkeys live in trees, they live off trees, and they exploit a certain product; they exploit the tree.

The process of diversification is the process whereby you change what you produce, so you change trees; monkeys have to jump. Monkeys have an easier jump to a nearby tree than to a tree that is further away. What do we mean by nearby and far away? Think of it as how easy it would be to redeploy the capabilities you have in producing the current good into producing some other good. For example, if I am currently producing shirts for men, how easy would it be to move to shirts for women as compared with moving to flatscreen televisions or to aeroplanes? These trees are going to be at a certain distance from each other. I am going to have a certain idea of where I am at the forest, what the shape of this forest is, what is nearby and what is further away.

The problem with moving in the forest is that the monkeys, the firms, are going to face a chicken and egg problem. If you want to move to another product, you have to

buy other inputs. You have to buy other trained workers. Why would those inputs be there or why would the trained workers be there if no-one was demanding them before? If you go to an island in the Caribbean, why would there be an airport if there are no hotels? Why would there be hotels if there are no airports? It is a chicken and egg problem. Whenever you start something new, you need the inputs to be able to produce but if there is nobody asking for those inputs, why would anybody provide them? This is what is going to make it harder for the monkeys to move through the forest, for firms to jump to further away products. That is going to make it important where you are in the forest so you know where you could possibly go, or where these monkeys could possibly jump to.

Then the question is the shape of this forest. The shape of the forest is an important question, because if the forest is very regular, with a tree every five metres, then the monkey has to jump five metres, then another five metres, and then another five metres. But if the forest is very irregular, you might have parts of the forest where the trees are very close to each other so it is easy to move, and other parts where the trees are far apart, so it is hard to move. What I came up with is a way of measuring the distance between the products. I take it as a probability that if a country is good at product A, it will also be good at product B, and I calculated using the data for the whole world. If two goods are close to each other, if you are good at one, you are also good at the other. They are not close if that does not happen.

What we see here is every product in the world connected to its nearest neighbour. You see that the forest now starts to have a certain structure. It is not very regular. Here I have connected every product to its nearest neighbour. Now I am going to connect every product not only to its nearest neighbour but also to other near neighbours. Now what you find is that the forest seems to have even more structure. In red I have connected trees that are very nearby, in dark blue trees that are very nearby, in brown, the nearest neighbour of that is relatively near, and in light blue the nearest neighbour that is already quite far away. So you see you have three clusters, a central cluster there with a lot of nearby trees, very easy to move around; a cluster down below – I will tell you what it is in a second – and a cluster to the upper right. The rest is pretty barren. If you do not happen to be in that cluster, the next tree is going to be very far away.

Now let me tell you a little bit about what those trees are. I am using a colour code to tell you more or less what kind of trees they are, and I am using the size of the circle to tell you how sophisticated the tree is. If the circle is very small, the tree is like a poor country. The larger the circle, the more sophisticated that product. What you see is that the central cluster is composed essentially of machinery, capital-intensive goods and chemicals. Very dense. There is another cluster at the upper right in light blue. That is the electronics cluster. Very easy to move around there, between those goods. You have this cluster below in green with small circles. That is the apparel cluster, shoes and apparel. The rest is pretty barren. On the left in brown you have oil, and at the upper side in red you have the mining products. Those are much farther away from each other and from the rest of the goods. This is the data for the world using a graph theory, a network theory, which I have used with some physicists at the University of Notre Dame, a guy by the name of Albert-László Barabási.

Now that I have the forest, I can look at where countries are in the forest. I am going to look at three countries. Remember, monkeys jump short distances, so where you are in the forest is going to matter. I am going to place the countries of the EBRD in this forest. Here is Poland. A black square is where Poland has monkeys in that forest. Poland has monkeys pretty much everywhere. It does not have any monkeys in the electronics cluster but it has monkeys in the central cluster and in the apparel cluster. It is quite densely populated. In Poland you have many nearby trees.

This is Russia. In Russia there are no monkeys in the central cluster, no monkeys in the electronics cluster, and no monkeys in the apparel cluster. There are monkeys in the oil cluster – that is the squares that the left – and in the mining clusters – that is at the top – and in the forestry cluster, but they are quite far from the other products, so it is going to be harder for Russian monkeys to move around because they are further away from other trees.

This is Ukraine. It is somewhere in between. It has more presence in the central cluster and more presence in the lower, garment sector.

I can now create a synthetic variable, which I call open forest, which shows the option value of jumping to nearby trees. It is a measure of how well positioned you are in the forest. You have income per capita on the horizontal axis. You see that countries of the same income per capita are very differently positioned in the forest. You have Poland, Czech Republic, Slovakia at the top and Oman, Algeria, Saudi Arabia at the bottom.

Let us see where the countries of the EBRD are positioned in this space. Many of them are relatively well positioned at the top but there are quite a few – Kazakhstan, Armenia, Azerbaijan, Mongolia – that are poorly positioned in the products base. For them it is going to be harder to move around.

This is another one that I like. We looked at how big the fall in output was during transition in these countries and what their initial position in the forest was. The idea is that, if you get a change in the international environment, a change in your export market, if you are in a bad part of the forest, you are going to be thrown off the tree that you are in, and there are no nearby trees for you to move to, so output is going to collapse. But, if you are in a good part of the forest, if you are thrown off one tree, you jump into the nearest tree. So what you have here on the horizontal axis is the depth of the recession vis-à-vis the initial level of output. Tajikistan and Georgia are the ones that had the biggest decline in output compared to Poland, the Czech Republic and Hungary, which had a smaller decline in output.

On the vertical axis is how well positioned they were in the forest. The countries that were better positioned in the forest are the ones that fell the least. The position in the forest affects how much you fall.

Interestingly, previous papers have emphasised a different variable, which is how far you are from Düsseldorf. How far you are from Düsseldorf and where you are in the forest happen to be related, but the interesting point is that once you control where you are in the forest, once you control, in my variable, open forest, the distance to Düsseldorf does not matter any more. The interpretation is that it is true with your positioning in the forest that distance matters. It is your position in the forest that ultimately matters.

Let me make three points on what I have said and two points on policy going forward. If you ask yourself why it is that poor countries do not catch up with rich countries, the interpretation using this framework would be that they are in parts of the forest where it is hard to move to the next tree. There is no stairway to Heaven. They are trapped in products it is hard to move out of. Secondly, what is the business of a resource curse? Interpreted in this space, the resource curse creates incentives for you to invest a lot in products that are very isolated. So if the price of oil goes up and you have oil, you want to invest a lot in oil, but oil is very far from anything else so you become specialised in areas of the forest that it will be very hard to move out of afterwards, because there are no nearby products.

Finally, why is it that countries fall into protracted growth collapses? That is because your export sector gets into trouble in a country that is poorly positioned in the forest. If you are well positioned in the forest, you just jump to another tree. If you are poorly positioned in the forest, you are in serious trouble.

Let me now define a space in which we can think of strategy. There are countries that are going to be differentiated in terms of how sophisticated their export basket is vis-à-vis their level of income. That is the horizontal axis. The other is how easy it is to move to other parts of the forest, the vertical axis. You can imagine that countries face these different strategic positions. There are some countries that have a sophisticated export package and are very close to other nice trees, so they have it easy. They are going to grow fast. It is going to be a relatively easy proposition. However, there are countries that are going to be in the opposite situation. They have an unsophisticated export package and they are far away from other trees. They need a bridge over troubled waters. They need a helicopter to put their monkeys in to jump over and colonise a different part of the forest. Then there are countries that have already exhausted the possibilities of their current export package but they are relatively near to other products, so they need a parsimonious industrial policy to jump to a sequence of nearby trees. Then there are those who have no nearby trees but have a lot of space in which to move in their current export package. So, depending on where you are, it will affect how you want to think about what is strategic.

What I have done here is I have put the numbers for the world which I showed before, and let me show you in the next slide where the countries of the EBRD are. While there are quite a few countries that are converging fast, that are well positioned in the product space, that have a good export basket – in the upper corner you have Czech Republic, Slovakia, Poland, Hungary, even Ukraine – that is not the case for all of them. Let me stop there. Thank you very much.

(Applause)

MR BERGLOF: Thank you, Ricardo. That raised a lot of issues. The question arises what we can expect from governments and what kind of institutions you need to achieve these different policies and so on. We have three representatives from different parts of our region who may be able to shed some light on this and comment on it. You should, of course, feel free to bring your own perspectives on this. First, Iryna Akimova. Iryna is a Member of Parliament. She is the shadow Minister of Economy here in Ukraine. I have always relied on her judgement on what is happening in Ukraine and more generally in our region. She has been very important in building capacity to understand important policy issues. She is the founder and is still, I understand, involved in the Institute that has the best name. It is called the Best Institute, so there is no question as to what is the best Institute. That is a good start. Iryna raises a lot of issues for Ukraine. Of course, Ukraine looks to be in a reasonable position from Ricardo's perspective but is that true and what is needed in Ukraine?

MS IRYNA AKIMOVA: Thank you very much for that introduction. Of course, it is very difficult to make a presentation following such a brilliant presentation by Ricardo. I was very inspired by seeing the slides a little earlier. I would like to elaborate in my short presentation on whether there is a possibility for Ukraine either to grow new trees in the forest or to make more elaborate jumps from one tree to another. The title I have chosen for my presentation is "Sustainability of economic growth through the diversification of exports". I have several slides and I would like to elaborate on them.

The basic message is that Ukraine so far continues to demonstrate a high rate of growth. On average during the period 2000-2007, the annual rate of growth in GDP was quite impressive, over seven per cent. It is true that it was basically driven by the enormous boom in private consumption due to the enormous rise in real incomes of households and to an enormous boom in investment. However, Ukraine has an open economy so exports really matter for economic growth. In 2007 the contribution of exports to economic growth was something like 1.5 per cent and in fact exports have started to increase over the last few years, which is a positive sign.

However, in order to sustain high economic growth rates in future Ukraine faces a difficult task to strengthen its trade performance in global markets. The Ukrainian economy is already quite open, more open than some other Eastern European economies. You will see some of the figures on my slide. Today the export to GDP ratio in Ukraine is more than 45 per cent, and the import to GDP ratio is something like 50 per cent, compared to similar indicators in the EU 25, which are around 40 per cent. The openness of the Ukrainian economy offers a lot of opportunities, because it might develop further by deepening specialisation. A lot of other countries, for example, the Asian tiger, the Baltic states, showed that the growth model of the open economy which is based on export diversification can be very successful. Nobody in Ukraine doubts that both direct and indirect effects of trade performance on growth are significant and should be used in the future.

At the moment, Ukraine specialises in low value added and energy-intensive goods. A recent OECD report, which quoted heavily the works of Professor Hausmann, revealed that the comparative advantages of Ukraine presently lie, first of all, in iron and steel, organic chemicals and fertilisers, and some raw foodstuffs. The only industry in the machine building sector where Ukraine enjoys a significant comparative advantage is in the production of railway vehicles due to increasing demand from Russia and other CIS partners. At the same time, Ukraine has a lot of comparative disadvantages, which lie in the investment-poor telecommunications, consumer goods, cars and pharmaceuticals. At the moment the export structure of Ukraine is poorly diversified. More than 40 per cent is heavily dominated by metals and metal products, which means that Ukraine development is very sensitive to

changes both in demand and in global market prices. High-tech products in Ukrainian exports so far do not exceed five per cent.

There have been some positive changes in the export structure over the last several years. They were not terribly significant but nevertheless positive steps are under way. The share of machine building and foodstuffs increased in total exports by something like two percentage points. At the same time, the share of minerals and unprocessed agricultural products slightly decreased.

In terms of the geographical structure of Ukrainian exports there were no significant changes. At the moment two thirds of merchandise exported by Ukraine goes to European countries and our partners in the CIS.

The question at the moment is, should Ukraine continue just to export on its present competitive advantages, or should it fight for export diversification? The answer is clear because there are a lot of disadvantages to keeping the present export structure. The first disadvantage is poor diversification of Ukrainian exports make it very sensitive to changes in the global market for steel and iron products. At the moment metal prices are high but the situation could change, which would hurt the Ukrainian economy very considerably. Another thing limits growth opportunities for the Ukrainian economy. A World Bank study showed that the long-running growth elasticity of Ukrainian exports to the rest of the world is less than one, which means basically that the Ukrainian economy, with its existing export structure, is limited in its opportunities to grow.

There is another important issue which pushes Ukraine into diversification of exports. Today's Ukrainian export competitiveness unfortunately is based on factors which are very close to being exhausted. First of all, it was cheap energy and soon we will have worldwide prices for energy resources. Secondly, it was cheap labour.

Unfortunately, or fortunately, labour is becoming less and less cheap. Real labour costs have risen by 51 per cent over the last three years. Our competitive advantages were based on depreciation of the Ukrainian hryvnia, and since 2005 effective costs appreciated by 11 per cent. Finally, our comparative advantage was based on

enormous spare capacity in the metal sector. Today this spare capacity has already been used up.

Is there any potential for export diversification? The study by Professor Hausmann which was quoted in the OECD report shows that Ukraine ranked relatively well on the indicator showing the sophistication of a country's entire export basket. It is above the line. This means that basically, countries like Ukraine, like other fast-growing emerging economies, could really penetrate the export markets dominated by wealthier countries. A recent study on China showed more or less the same. So the opportunities for export diversification are basically open for Ukraine. Moreover, there are a couple of important external factors which pushed Ukraine in this direction. First of all, there are new opportunities of integration into the global trading system associated with the recent accession of Ukraine to the WTO – this in fact happened yesterday – and future negotiations on free trade agreements with the EU. That will imply a reduction not only in tariffs but non-tariff barriers, the application of international procedures for settling trade disputes, liberalisation of market services and bringing the regulatory environment of Ukraine closer to EU standards.

What does this mean for Ukraine? It means new opportunities to continue growing its traditional exports, basically iron and metals. It means better opportunities for exploiting EU market niches. For example, at the moment Ukraine might have very good possibilities for increasing its agricultural production. Ukraine is the second-largest oilseed producer and the sixth largest world producer of grain. These possibilities could and should be exploited in the future. Due to new possibilities of international integration, Ukraine will have better access to the European market and more opportunities to attract FDI. However, having opportunities and using those opportunities are unfortunately different things. In order to exploit these opportunities and use them fully, Ukraine needs to improve its business climate to promote first, technological innovations, and second – these are related things – investment, both domestic and foreign investment.

What is the picture in these two sectors at the moment? Is Ukrainian lagging behind in innovation? The statistical data, which is imperfect in Ukraine, nevertheless shows

some concerning things. First of all, over the last ten years the share of research and development in Ukraine's GDP has been falling. It fell from 1.4 to something like 0.93 per cent of GDP. At the moment Ukraine is lagging behind most of the EU 15 countries. However, it is surpassing its eastern European neighbours. In terms of public financing of research and development, it is about 0.85 per cent of consolidated budget expenditure, which is also slightly lower than in the European Union. What is more important is that over the last seven years the share of enterprises which were involved in implementing innovations also fell. Even taking into account the imperfection of Ukrainian statistics, these figures are concerning. Moreover, the practice by the government of tax exemptions to set up the innovative techno-parks in Ukraine did not prove to be very successful.

A few words about investment. In terms of investment, the ratio of investment to GDP was going up in Ukraine. Nevertheless, we are still lagging behind many of our European neighbours. In terms of FDI, the picture becomes more and more positive. In fact, there was a rather significant inflow of FDI to Ukraine over the last two years and at the beginning of this year. It now accounts for something like \$900 per capita. However, it is still lower than in most Eastern European countries, and it is absolutely clear that, given the very high level of depreciation, especially in infrastructure, but not just there, in order to diversify its exports Ukraine needs more foreign and domestic investment.

What are the major barriers to investment, innovation and the competitiveness of the Ukrainian economy? I would say there are three. One is increased macroeconomic reasons. The level of inflation is very high at the moment, 30 per cent in April 2008, compared to the same period in 2007, and the picture is becoming concerning. No investor would be willing to enter an economy where the issue of macroeconomic stabilisation is very high. That is the first question, together with the worsening current account deficit, the picture is concerning and needs quick decisions.

The second issue is the problematic business environment. Despite a lot of improvement in terms of the legislative framework for business, Ukraine's rank in various competitiveness indexes is still very high. The third issue which is becoming more and more important is the very weak political background for pushing forward

structural reforms. Unfortunately, the continuous election cycle in Ukraine provides a very good basis for enormous populism, which prevents reasonable steps in terms of structural reforms.

My last slide shows what should be done in the short-term future, within one year. The first reason which might help not just Ukrainian politicians but the business sector to push forward Ukrainian reforms is political stability. In practical terms, it means a continuation of constitutional reform and a clear separation of powers between the three branches: presidential, executive and legislative power. The second task in this particular era is an increase in political accountability while reshaping the election rules, the proportional and majority systems. Another issue which is very important, and probably should be first on the list of any political and economic agenda, is achieving macroeconomic stabilisation. Here there are a lot of important tasks, including flexibility of the exchange rate, and more independence for the national bank. Ukraine must employ a very tight fiscal policy, which is very difficult to do. However, bringing inflation down to one digit is a most important task in order to promote further the investment climate.

Recommendations with respect to microeconomic reforms are very well known. Promote competition, especially in the network industries. Promote privatisation using very clear, transparent and non-discriminatory rules. Continue easing the tax regime. Establish a new socially-targeted support system which will provide social support for the structural reforms. These recommendations have already been spelt out by many international organisations and the implementation of them to a large extent depends on the political climate in Ukraine.

Finally, of course, the international factors and first of all promoting further international integration and using all opportunities to promote Ukrainian exports might help the situation. However, Ukraine at the moment looks forward to more political and macroeconomic stability, which will be the basis for future reforms and the diversification of Ukrainian exports. Thank you very much.

(Applause)

MR BERGLOF: Thank you, Iryna. What you have illustrated is that we very soon get into issues that are much larger than just... (Slight gap in recording) ... people say that in Ukraine it shows that you can grow without a functioning political environment. Some people are even saying this is why Ukraine is growing, because politicians are not interfering. What you are saying is that this is not true and if you really want these long-term structural changes, you need to focus on the broad political issues as well.

Our next speaker is Bozidar Djelic. Bozidar is the Deputy Prime Minister of Serbia. In a previous stint in the government he was Finance Minister and played an important role in bringing about important structural reforms in Serbia. In Serbia certainly the question of short-term issues taking over and dominating the debate at the expense of long-term competitiveness I know is a major concern of yours. What is interesting about Bozidar is that he has been going between business and politics, starting in McKenzie, working in France, and then joining the government at a very important time in the Djindjic government and then leaving for a few years and going into the banking sector. Your experience is very important today. Thank you for coming.

MR BOZIDAR DJELIC: Thank you, Erik. Hello, everyone. Actually, if you look at Serbia, over the last 18 months we have had one referendum on the constitution, two parliamentary elections, one presidential, one regional and one for local councils. That was followed by growth of seven per cent a year and €8 billion worth of foreign direct investment. I am a hybrid: at times a businessman and at times also a politician. I spent a year at the predecessor to CIAD, at HAID(?), after my studies at Harvard.

I would like to say that stability does matter. I will come back to that at the end.

To the question at hand. At the end of the day there are 210 countries and the issue, as Professor Hausmann said, is how you get into the rich person's club. Once you have the positive synergies and linkages, you are fine, but there is a tipping point which you need to reach, which is a combination of good exploitation and avoidance of the winner's curse of endowment in natural resources on the one hand and human

capital. That is very important, because, given the demographic situation of the countries of operation of EBRD, it is catastrophic. It is worse in Western Europe. Holding on to the young, making sure the pensioners do not kick them out through the normal demographic process of voting for ever bigger pensions and squeezing the available means for investment in education and entrepreneurship. This is a very big issue.

I will start in south-east Europe, but I think this can be generalised to the EBRD countries of operation: we have had an exceptional phase. There was the soft spot of globalisation, played to the fullest to the benefit of the countries of operation of EBRD. Let me illustrate that. On one side there are four countries that some still say are hedge funds of oil, i.e. Kazakhstan or Russia, or metal, i.e. Ukraine. There has been an increase in demand for various reasons which I will not go into, but the entrance of China, India, Brazil and Russia, which is the big bear of the countries operation, expanded the available demand and therefore helped use capacity built in the decades before. This old social division of labour in a very surprising way served well the countries that used them; through more or less successful and transparent privatisations, they had owners who could really use the assets and exploit all the new linkages.

On the other hand, there was the very important effect of globalisation on Western Europe. If one hears that Nokia is moving from Germany to Romania, that is in order to avoid having to move to Malaysia or other places. In a way, the huge pressure on Western Europe and on its political and economic systems has been used by central and eastern Europe. When you put fiscal damping to boot, and the very many incentives for investment, you had record levels of foreign investment. The nice thing about foreign investment of course is that with the money come the knowledge and, above all, the corporate governance and the way of doing business. That has helped, and this in turn has educated managers that span out into other sectors, and they themselves created small Nokias and small companies that were then able to strengthen the base and diversify away. That is a factor that is not talked about very often, but it should be pointed out.

The last issue I would last like to mention is that, as the economists would say, you have the S-curve effect on consumption, where you have this unique moment of meeting between the disposable income on one side, and availability of finance, and decrease in the cost of capital, which was at record levels, therefore a huge boom in consumption, both in the household and the corporate sector, and that has provided for a lot of demand, a lot of growth, which was consumer-induced, as we have discussed. You could say that is great. In fact, those who are not below the line will get there. It is just a matter of time. Do not worry. Let us run the victory flag up, all countries of operation are done, and it is time to close the EBRD, or whatever should be done. (I do not think it is time but we will see.)

In a way, there are a lot of things which may indicate that we are coming to the end of this era, for reasons which are both structural and of a contractual(?) nature, although you might discuss whether the price of oil or the price of food is something which will come or go. That would be a long discussion. Let us just say that at this point in time there is this globalisation, this usage of capacity, this consumption booms, those three factors I wanted to point out for this big investment boom and also progress and the fact that many of them are above the Hausmann line. All of that is coming to an end. Why? Because nobody is standing still. China and India are also climbing the ladder. The relative advantage you had in terms of labour and costs, which is being rapidly eroded, as was mentioned. The spare capacity of the Petoletka that was built in the Sixties and Seventies, with some refurbishment, is coming to an end. Lo and behold, Russia is producing less oil. Suddenly we see that much more investment needs to be put into Ukrainian, Serbian and also Polish heavy industry if they are to compete with the new competitors. Therefore, you see a much bigger effort has to be made.

One element, and I think there is going to be a dividing line – and this is my intermediate thesis before coming to the elements of solution, because it is all about changing the hand of cards you are dealt. It matters not only whether you are closer to Düsseldorf or not. You know that the Czechs, at the beginning of transition, said that Prague was further west than Vienna, closer to Paris than Vienna. This mattered a lot. What mattered even more, of course, was that the fact that you had this EU integration, which really helped not only open up the markets but, because of the improvement in institutional capacity and the functioning of the market that was

imposed – although it is not always perfect; quite often, being on the receiving end, I can tell you that your advisers made us try to do things they would never dare to do at home. You need to take a few grains of salt before you implement these things. For instance, the regulatory agencies, which are supposedly much better and less corrupt than politicians, as if you can produce seven experts out of the sky, mother kisses them on the cheek and they will be completely isolated from any influence! Maybe putting responsibility where responsibility lies, in the hands of the executive and the legislature, where there is huge media and other pressure, might be a better way to go.

To come back to the central argument, what is important is to realise that this element of integration which helps to lift the votes of countries of operation that have either entered the EU or have a clear prospect of entering is something that is providing an unfair advantage compared to those that do not. In a way, those in the EU are in many ways safer than those who are not, despite everything. I mean safer because of the fact that globalisation is not stopping. It has helped because it was deflationary, there is more demand, and now we see it starting to be inflationary and putting pressure on competition on the higher value added sectors. Those in the EU will be much closer to the club and will be able to jump to smaller trees and play with the other monkeys in the EU. If you are further away, it is a bit more difficult.

I will close there. To recap my substantial argument, we had the sweet spot of globalisation and EU integration and opening up of the markets that played to the fullest possible in the countries of operation. It is coming to an end in many ways. There will be a dividing line depending on the club you are in, and that is why I imagine those who are not in the EU want to be there. I hope my country will not be an exception, having the opportunity and hesitating. May 11th and the elections showed that that is not what the people want. We have a little problem in finding the microcosm to agree with the people, but I am sure we will get there in two or three weeks.

What is to be done? First – and this is probably the most difficult thing – in all these debates we tend to discount the demographic factor too much. Why? Because it is so slow. So in a way, it is boring to talk about it but it is the most important thing.

Fertility rates in the region are the worst in the world. Russia is losing 800,000 people a year, Ukraine 350,000, my country 35,000 a year. Emigration. Of course, Mr Franco Frattini, when he became the Foreign Minister of Italy, said, “I’m not sure about Schengen,” but when he was in Brussels he talked about the blue card, playing the green card of the EU, because the EU knows it has to import many more brains. We will have a huge war for talent and for people. That is absolutely necessary in order to sustain growth and to pay for the flabby and completely spoiled emerging – or emerged – middle class of Europe.

We have heard from our colleague from Ukraine, and I am surprised; those are not bad figures, because in the rest of the region it is much worse. Average investment in science and technology is really more like 4.5 per cent of GDP. Education – we all know the OECD target of six per cent but none of the EBRD countries of operation, save Slovenia, are there. It is easier said than done, but when you have on the one side an ageing population, on the other hand an emerged middle class demanding very cheap access to public services, that already accounts for a large part of the public finances. Those who will be able to reserve between four and six per cent of GDP in the years to come for those purposes will be countries like Korea or some of the other winners in the future. That is one metric to watch.

Here the political system is important. You need some political space, and that is where Serbia is now, four years ahead of us. Hopefully, we will be able to do it in order to do this and to change so that the sources of growth are not only consumption, and then you have those current account deficits, which could be unsustainable.

The second thing, with the exception of perhaps three countries in the countries of operation, Russia Ukraine and Poland, all the other countries are small, so they are doomed – or blessed – with the need to be open, very open, but when you are open, and because of the scarcity of talent, in particular engineering talent, we need to think about regional clusters. There is one for the automotive sector, which is of course Hungary, Slovakia and the Czech Republic, and we in Serbia are doing everything we can, with the help of our friends from Romania and others, to recreate another one, the next one. We need to think regionally.

The third thing I would like to say is that not all factors are created equal, so I am very curious to see your database, Professor, because my hunch, and it is backed by some analysis, is that there are three sectors here for debate, which are the best way to create forest, and lots of trees and lots of happy monkeys. The first one is automotive, because if you look at the structure of international trade, a lot of it is actually automotive. It is unique in the sense that it combines a lot of sectors worldwide. Electronics: high value-added and at the same time it is labour-intensive so it is perfect. My friends from Slovakia always tell me three or four factories completely transformed the country. The second sector is chemicals. It does not look great but, with progress, that is something that is traded a lot, and it travels a lot and there are many reasons why you might want to have them. The third, of course, which is much tougher, is Electronics.

I have told you about Serbia's strategy for FDI. We have been investment takers to the tune of €16 billion over the last seven years. We will be trying to direct it more. The last thing I would like to mention is that you have to follow the curve, and you have to follow the curve of globalisation, so on the top of the list that we want to visit is definitely the emerging 500-pound gorillas. If Singapore has become highly developed because they found common ground with Intel, if Ireland found this little, unknown, promising company from California called APO(?) and they created everything we know, we are looking for the Chinese, the Indian, the Russian, the Brazilian – and others are welcome as well – people who actually will find their way to establish in south-east Europe and export all around and bring the future demand and future technology as well. So you have to play with the giants.

That is all I have to say, but overall I think if one thinks about where we were ten or 15 years ago, the whole thing is not about how to avoid catastrophe. It is more how to make sure that the legacy of the sweet spot of globalisation does not ebb away from EBRD countries. I see the issue for Central Asia because of isolation and particularly for countries that do not have at least this curse of endowment. There are issues about the investment that needs to be allocated for countries which are heavy machinery and other things to keep on going after the spare capacity is used up, and of course, for those who are not resource-heavy it is to allocate the necessary finances both for

public and private to promote investment in the next phase of innovation. That is the point, but the future is bright.

(Applause)

MR BERGLOF: Thank you, Bozidar. I think what you are saying about the monkeys of our region playing with the gorillas of India and China is very good. Actually, we looked at this, and across the industries where China has been successful in Europe, actually Eastern Europe has done very well, so basically it is not a zero sum gain, and there is only one industry, textiles, where central and eastern Europe have lost out. The other side of what you are saying is, if we look at investments in R&D, ten or 15 years ago the levels in China were about the same measured as a percentage of GDP. Today, with a much higher growth rate, they have now doubled their share of GDP that goes into R&D investment. In our region it is basically stable and in some countries in decrease, so this is a real challenge.

Ksenia Yudaeva is last. Russia did not look too well in Ricardo's analysis. I think Ksenia can shed more light on this than probably anyone else in Russia. Ksenia is a symbol of what is hopefully happening in Russia. She was the first economist to return to Russia with a degree from MIT, to first be part of building what is now a leading research centre. She then went into the Centre for Strategic Reform, where the government think-tank built up their analytical capacity. She has now taken the step of becoming the Chief Economist of Sberbank, working with the former Minister of Economy, Herman Gref. Ksenia has given a lot of thought to these issues.

MS KSENIA YUDAEVA: Thank you, Erik. I would like to start with what Bozidar said, which was that Ricardo's monkey theme is about how to become rich. The major challenge for a country like Russia, although many of my counterparts would probably not agree with me, is how to get better if you are always ...(inaudible)... many things, including designing a corporate university. My background is in economics, and I know nothing about management education, which I am now thinking about more. What I will say later will be influenced by that.

The first thing I did was I bought a book by Jack Welch and started to read what he did in GE, and why he used his corporate university in order to change the company. I found out that before he talks about the corporate university, one of the first things which he did in GE was he sold its natural resource business, and he said, “I don’t like natural resource business because it is unpredictable. It does not depend on people’s efforts. It depends on many other external things. I was building a company which really depends on people, which should have people making an effort and being very good people and the natural resource sector did not fit into this picture so I sold this business.” I think this is a very important notion about challenges which countries like Russia, natural resource countries, face when they are trying to design their diversification strategy and their growth strategies.

If we look at the Russian statistics recently, of course, everybody in Russia talks about diversification. If we look at the statistics, it is not happening. If we look at production, diversification is happening. There is quite a lot of diversification, even in the last four years, during the time of high oil prices. However, diversification looks much better if we look at quantity figures rather than at volume numbers. The same thing with export diversification. Exports in Russia diversified much less than production, but it did diversify in the last couple of years, when you would think it would not have diversified, but again, in terms of quantities, diversification is much higher in terms of volume.

The worst thing is taxes. If we look at taxes, Russia is more and more dependent on oil revenues, despite all the diversification which happened both in production and exports. So really, all this diversification effort did not produce enough impact on our people’s incomes and on government input, and therefore it is a big challenge for Russia to develop a diversification strategy in an environment like this, which actually does not pay for effort but pays for some random things happening in the global economy.

That is one challenge which I would like to mention, and the second one actually relates to this task of building a corporate university. Ricardo speaks about monkeys who jump from one tree to another. He is from Venezuela, and in Venezuela they probably have monkeys which jump from one tree to another. I am from Russia, and

in Russia we only have monkeys in the zoo, and monkeys in the zoo do not really have an opportunity to jump around much. Sometimes they do not even have an opportunity to jump on trees; they jump on artificial things in their cages. Coming from a zoo does not teach you really how to jump. If you go out into the big, wide world, if you go into the forest, you have to find a way to survive in this environment because you have never had these opportunities to jump around in the trees. You have been jumping around in a limited space in a cage and it is a really big challenge.

Speaking of a country like Russia, what is the difference, for example, between Russia and Vietnam? Vietnam is a poor, labour-intensive country and it can follow Ricardo's strategy. China went from where it was before, producing similar goods but 20 years before, developed skills and developed in a particular way, and Vietnam is doing this pretty well. A rich country like Russia, if it wants to diversify, has to parachute straight into industries which produce goods which very rich countries produce. It does not have these cheap labour costs with the opportunity to produce something cheaply and simply. It really has to produce something sophisticated.

If we look at the economic theory, there are three types of goods: goods which are traded on international exchanges, goods that are standardised and easily traded, and goods which have diversified and you really have to have skills in order to sell them, and in addition to skills you need to have reputation to sell these goods. They come with a lot of services attached to them, so a big part of the production of these goods is how to sell them. These are exactly the kind of goods which Russia has to produce in order to diversify its exports. It cannot produce anything else because it is already very rich.

Business education, development of business skills, and changing the culture and mentality of Russian producers is a very big task for Russia, which has to be solved in order for this country to really diversify its economy and to build a new production sector which can compete with oil as a source of income and as a source of government revenue. In a situation like this where we discuss government policies such as liberalisation, the investment climate, we often forget this education component. I would like to draw your attention to this because I think it is no less

important than the business climate in terms of developing new business opportunities in our countries. I will stop there.

(Applause)

MR BERGLOF: Thank you, Ksenia. I am very conscious that you have been waiting to ask questions of the panel, so please feel free. There should be roving microphones. Who wants to start?

QUESTION: Martin Zshindizki(?) from the Blue Ribbon Analytical and Advisory Centre of UNDP here in Kiev. I have a question for Iryna. Among the many issues you raised you also raised the issue of political stability, that it could also affect economic diversification and economic growth, and you mentioned something about majority voting. Could you elaborate on this a little more? How do you see the linkages between political reform and economic development in Ukraine?

MS AKIMOVA: Thank you very much for that question. In fact, I did not want to go into the political issues at this expert meeting. However, the political issues are definitely related to economic success. When I was talking about political stability, I meant the practice of political populism, social populism, which unfortunately is connected with the political instability in Ukraine, might hurt the future prospects for economic development of the country. Why? First of all, social populism is very harmful because it reduces the purely financial and non-financial possibilities of investing in much-needed structural reforms for a country where the structural reforms did not get very far, like Ukraine for example. That is a very important issue.

The second issue is that it might under certain conditions undermine democratic values. What do I mean? If you see political leaders trying to out-bid each other with respect to high social promises, which might not be fulfilled due to budgetary constraints, then inevitably among the electorate there will be deep disappointment and disapproval of the ruling parties, whoever they are. It might produce a very good basis for the rise of a vicious or benevolent dictator, or in other words, for dictatorship of any type in the country. Therefore it is my strong belief that economic and social populism, which we are now observing in Ukraine – not only there of course – might

be very harmful for the future economic development of the country. Therefore, in terms of political stabilisation, there is a need for consensus between all the political players concerning the most important issues which should determine the country's future, and one of the most important issues now is macroeconomic stabilisation, which is closely related to issues of fiscal tightening, which implies in turn a very unpopular decision. However, this should be done, and without political consensus that would be very difficult to achieve. Thank you.

QUESTION: Simon Pirani. I am a journalist. Can I ask Ksenia to comment some more first of all on the modernisation strategy that has been set out by the government, the national programmes and so on, some of which is very much directed towards long-term development. How do you see that in terms of the issues that have been raised by the panel? Secondly, can you comment in relation to Russia on the issue that was raised by Mr Djelic about demography?

MS YUDAEVA: Thank you very much. First of all, of course, the Russian government is really preoccupied with diversifying the economy and developing new sectors. Coming from a socialist background, our government now looks too little at the market economy, too much at the strength of the government, so it puts a lot of stress on state corporations as a means of developing new sectors. However, I think that in Russia a lot depends on personalities, and in many cases, if you put the right person at the head of even a state corporation, it will start developing as a private-run state corporation, and it could become very successful and develop into a good business despite being a state corporation if there is the right person in charge. If it is the wrong person in charge, then nothing will happen.

My personal view is that too much stress is put on the strength of the government, but it may work out. Also Medvedev is starting to speak more about the rule of law and the investment climate, so I think we may actually see some improvements in this direction as well, but the kind of diversification which I spoke about in my presentation comes not actually from those efforts of the government but mainly from the efforts of the private sector. Very often – and I do not have statistics on this – my belief is that it is an effort of the Russian private sector, not of foreign investors. Of course, foreign investors in Russia play a big role. They are playing a big role in

diversification, particularly diversification of domestic production, mainly in production for consumer markets; they go into this area, which has been really lucrative in the last seven to eight years. We are also seeing a new Russian business developing in various areas and this helps both to diversify the economy and to diversify adequately(?). Niche exports, which are appearing in Russia, which has very small export volumes in new, non-traditional sectors, are in many cases done by Russian businessmen rather than by foreign investors and government companies.

I think overall I am very optimistic for my country. I think it has changed a lot. It is probably changing slowly, but it has really changed a lot, and is growing a new generation of businessmen, and further generations of businessmen are coming who are very different people from the kind of business leaders we had 20 years ago, and these business leaders are changing the country.

Speaking of demographics, demographics is of course a huge problem for all countries. The population is declining at the moment but, frankly, as an economist, I do not see a long-term solution to that. Everyone in the world will have to learn how to live with a stable rather than growing population in the next 50 to 70 years, because all other solutions which people suggest sound centrally to me. Migration is only a temporary solution. The fertility policy has a limited impact. I think actually economic development will have to change and, of course, it is very unfortunate that Russia is a country which will have to be a generator of new ideas in this area. This is the kind of challenge to which I do not see any easy solution. I really think that basically, we will just be moving into more capital-intensive sectors in a world where replacing labour-intensive sectors with capital-intensive sectors, moving in new technologies to care for older people, again in less labour-intensive ways. Technology in the long run is the only solution to the demographic crisis for countries like Russia and many others developing in the region.

MS AKIMOVA: I would just like to add to what Ksenia and Bozidar have said. I very much liked your remark in the presentation that in fact all the reforms basically depend on the level of social support, therefore the social area, especially given the unfavourable demographic situation in our countries, should be kept under continuous attention. What does it mean? What are the implications for my country? What are

my conclusions? First of all, Ukraine, and probably Serbia and other countries, should not use unproductively the lessons from the Western experience. We should avoid mistakes which were once made, for many reasons, in Western Europe. First of all, it is a very generous system of social support. Countries like Serbia and Ukraine, even for fiscal reasons, cannot afford that. A very generous pension system is probably not feasible for countries like Ukraine, Russia and Serbia and very inflexible labour markets.

Now, when we are only more or less starting market reforms in these particular areas we should be very careful and at least try to stick to more market-oriented solutions. For Ukraine question number one in the social sphere is to build a targeted system of social support. That will ensure support for reforms in the energy sector and everywhere basically. It is a very difficult task which unfortunately is not yet being appropriately discussed by any government. Another issue is the system of education and medical care. Again, there is an open question how to finance it, whether to continue state financing. For example, in Ukraine almost nine per cent of budgetary expenditure goes into education, which is much higher than in other countries. Unfortunately, it does not bring forward the solution for production of a very highly qualified labour force. So sticking to a more market-oriented solution I think must be an issue on the political agenda of our countries.

Finally, in Ukraine now we are discussing a lot of different issues related to the minimum wage, the minimum subsistence level. Again, we might make the same mistakes which have already been made in the Western markets and which will reduce the flexibility of the Ukrainian market in terms of labour, which is still not very low. These are issues in fact which are not discussed by politicians as often as the business climate or even macro-stability but they should be put on the political agenda.

MR BERGLOF: Unfortunately, we are under very tight time constraints. I wanted to get the last word to Ricardo. What is your reaction to the reactions to what you said?

PROFESSOR HAUSMANN: I think it is a very productive discussion. I particularly liked the fact that countries have been exploiting the fact that if a foreign investment

company comes in, as Mr Djelic said, it populates a certain part of the forest and many other firms populate the nearby trees, and it is in countries where this has been possible that you have seen fast rates of growth to date. I like the idea that maybe some of that process was easy at the beginning and it may get more complicated as we go along.

When I look at research and development statistics, to me it is very important to separate what is public and what is private, because what you really want is to create an environment where R&D is profitable, and where it is in a business's interest to invest in R&D because entrepreneurs see the benefit of those innovations. In countries where it works, for example, in Israel there are now about five per cent of GDP in private R&D, and it is an indication that something about the business environment makes those investments very profitable. So I do not see that so much as a fiscal decision as much as a signal of the quality of the business environment and the possibilities for innovation. In some cases that is just not important; it is not where market should be, but as the easy jumps to nearby trees are exhausted, more complicated issues will arise, and the kind of cluster environment required to get a successful chemical industry or the cluster environment that it takes to generate a successful auto industry, especially in small countries with borders and so on, all these issues are the kind of edge where policies have ensure the mobility of the monkeys. As Ksenia said, monkeys are trapped in cages. In fact, in my figures the EBRD countries of operation on average have had a lot of monkeys jumping, so they were in cages exercising or something, because when they left the cage they started to jump quite a bit.

We need to think in terms of facilitating those transformations and create both the general macro and political environments for these things to happen, but more importantly, to generate the kind of high bandwidth dialogue with the private sector where the obstacles to private activity can be identified, where the opportunities for new private investment can be identified and where policies are responsive, not just in the big macro themes, but in the much more micro-specific themes that underpin potentially the very large new developments that could take place.

MR BERGLOF: Thank you, Ricardo. I will not try to summarise this discussion. Thank you very for taking the time to spend an hour and a half thinking about the long-term issues of the region. I know there were a lot of questions and I am sorry that we did not have time for all of you to ask your questions. Maybe we can thank our panel members for their contributions.

(Applause)