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The Global Growth Agenda
INCREASING PRODUCTIVITY TO MEET GLOBAL FOOD SECURITY NEEDS
Panel

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Moderator:

Donald Almeida, Vice-Chairman, Clients and Markets, PwC

Panellists:

Vladislav Baumgertner, General Director, Uralkali JSC

Marta Dassu, Deputy Minister of Foreign Affairs of Italy

Nikolai Fyodorov, Minister of Agriculture of the Russian Federation

Enderson Guimaraes, Chief Executive Officer, PepsiCo Europe

Daniels Pavluts, Minister of Economics of the Republic of Latvia

Yonah Weisz, Global Head of Fertiliser Coverage, HSBC Global Research

D. Almeida:

Good morning, everybody. I think we are going to get started. My name is Donald Almeida, I am a Vice-Chairman with PricewaterhouseCoopers, and it is my distinct pleasure today to moderate a panel on the topic of increasing productivity to meet global food security needs. I am extremely happy to have very distinguished panellists with me up here. They are not only distinguished in their own rights and with their own companies, but also have very different backgrounds and very different views, that I think should be interesting for all of you, relative to this topic. So let me introduce them in no particular order, but starting with Nikolai Fyodorov, the Minister of Agriculture of the Russian Federation, Yonah Weisz, Global Head of Fertilizer Coverage for HSBC Global Research, Vladislav Baumgertner, General Director, Uralkali JSC, Enderson Guimaraes, the Chief Executive Officer of PepsiCo Europe, Daniels Pavļuts, Minister of Economic Development for Latvia, and Marta Dassù, Deputy Minister of Foreign Affairs for the country of Italy. Those are the panellists, and with that as background, we have been given one hour and fifteen minutes to cover a very, very complex topic. I will mention before we begin that there is no way that we can cover every significant issue, but if we do a good job, we will cover some very important topics within that very important area.

Let me get started and paint a picture to give a little background here. In terms of an overview, some of the main drivers of the whole area of global agribusiness include things such as food security – by 2050, a population of 9.3 billion will need about 50% more food than we need today. There will be a dramatic shift, which is already occurring, in the global economic power base, and that will clearly have an impact on this whole area; the growth and improvements in income distribution, which is increasing demand around the world; the area of accelerating urbanization – by 2030, almost 60% of the global population will be living in urban areas, and this represents incredible pressure for several aspects of the food value system and value chain, including volume, cost, processing and sales and distribution; the whole area of energy security, and the potential lack of oil and how that could paralyse some of the main world economies; the very important area of

technological breakthroughs, which I know will be discussed by a number of the panellists; the area of climate change and resource scarcity; changes in rainfall regimes in traditional production areas, which will increase the average temperature; prolonged periods of drought and changes in the equilibrium of the environment are just some of these challenges, as well as the whole area of sustainability. When you look at how we can increase productivity, what is being referred to are the four Fs: food, feed, fuel and fibre. There are five key elements: new technologies, which I have referred to; increasing production, and increasing production needs; the whole area of sustainable and responsible use of natural resources; the area of international trade, and in particular, things such as technology transfer between the mature and maturing markets; and the whole area of strategic partnerships between the public and private sectors. That is, at a very high level, what I would call the backdrop, and so with that as the backdrop, let us get started with some of our panellists. Let us talk about some of the most important areas to consider, and I am going to start with Yonah Weisz, from HSBC. Yonah, from your perspective, how can things be improved, and especially if you start with taking a top-down approach?

Y. Weisz:

Thank you very much, Donald. I would like to start off this discussion by looking at some of the bottlenecks that challenge proper global food security, and then continue by looking at what is to be done about them. There are three main areas to increase security: in production, transport and issues of capital. Within production itself, you just have to grow more food. That, really, involves education, getting farmers a better knowledge of farming, improving farming – that could be any number of different topics, I will get back to that in a moment – and finally, opening up new areas of land, of the Earth, for arable production. Again, I will talk about that in a moment. The second major area that could challenge food security lies in logistics and transport. Once you have grown your grain, or your fruit and

vegetables, you have to get them to where people eat them. For all of this to occur, there has to be new investment, new inflows of capital to the food production world. What can be done in these three areas? In the area of production, one can look primarily at education and technology. Education of the farmer is key. You have developed markets and areas of the world, such as North America, South America and Europe, which have been farming for generations. In Asia and in Africa, there is a very big knowledge gap, between what people have been doing in the US and Europe, for example, and what people in China, India, or Kenya have been able to catch up with. In terms of technology, by which I mean not so much computers, but seeds, water, and fertilizer use – and here, for example, in Russia, there are very large fertilizer producers, blended or chemical fertilizer producers, which can be used as a technological way to improve yield and output for farmers. In terms of seeds, you have companies around the world developing genetically modified seeds, which could be accepted, perhaps, more broadly in a couple of years' time than they are right now. Finally, in terms of water, you have drip irrigation, and more specialized water use, which would again improve yields in areas which are quite arid.

In terms of transport and logistics, traders around the world generally take care of supply. Once you have the supply, it can get to where it has to go, but there are still bottlenecks there, and those are mainly in ports. For example, in Brazil, at the moment, there are lots of problems with getting input to farming into the country, and getting the output of farming to customers around the world. There can sometimes be delays of up to two months at the ports. That is perhaps something that governments could look into more.

Finally, one needs investment, and in terms of investment, you get the physical development of land, as I mentioned earlier. There is a need to increase the production area, and here in Russia there is a fantastic area in the south-west – the Black Earth Region, which could be fantastically developed to supply demand for grain for the next couple of decades, and that has to be focused on more. There is also human capital, and this is perhaps the biggest challenge; we need to convince

computer programmers to put down their BlackBerrys and go and milk cows, which could be a bit difficult. However, if there is a proper incentive – I will get to that in a moment – then people will start coming to the cows, to the grain, and maybe leaving some of the existing or more mature industries. Finally, and this is the most important thing, I would say – a stable structure. For people to do all that I have talked about in the past few minutes, governments need to provide a stable structure, with rules about how you invest, and about how you also reap the profits of those investments, so that people who do enter food production, or agriculture, will know that they can reap the fruits of what they sow.

D. Almeida:

Would any other panellists like to add anything to that?

V. Baumgertner:

A little about planning, if I may. There are two ways to meet the food challenge: growing on new land and intensifying agriculture. In the short to medium term, I do not think there is any way to start cultivating large amounts of presently untapped but suitable land. This land is mainly in Brazil, but there are significant environmental limitations there: ecologists are already sounding the alarm over the Amazon rainforest. Africa has a lot of potential but I do not anticipate that the political and infrastructure risks in Africa will decline markedly over the next five, ten, fifteen years. In the Russian Federation, much of the land that stopped being cultivated in the early 1990s could perhaps be brought back into agricultural use. But if we want to truly resolve the food security problem, we need to focus on technology, intensifying agriculture, and creating the conditions that will motivate farmers to improve yields.

D. Almeida:

Anyone else?

M. Dassù:

I think that this point is really crucial. I think that this land-grabbing part of development work is a real problem, and they also need to use land for other purposes. So, the technological ability to be able to exploit and increase productivity in land is really a key factor, and I would support this point as a really crucial one.

D. Almeida:

OK. Let us move to Mr. Baumgertner. Do you have any comments you can make or add to ways in which supply can be dramatically increased, to deal with the global increase in demand?

V. Baumgertner:

I could talk for hours on the topic of food security, but I will try to stick to the main points. Technological development should be a task for business, since business has the financial resources and skills to invest in research and development. Business has a financial motivation: with operations around the world, large multinationals are aware of the leading benchmarks and can transfer technologies from more developed countries to less developed ones. A great deal has been accomplished in this respect already. In the last 20 to 30 years, yields worldwide have approximately doubled. In the 1980s, grain yields were 20–30 centners per hectare, but now the average yield is 43 centners per hectare.

In some areas, business cannot function without the government's help. The whole area of education, first and foremost. We constantly see evidence of this on many markets, working as we do in India, Brazil, Southeast Asia, and Latin America. With today's prices for agricultural products, farmers can afford high-quality seeds and crop protection products, balanced fertilizer use, and so forth for practically all crops. But often that is not what happens. The reason is not a lack of money, it is a lack of knowledge. Developing the right methods and guidelines in a way that farmers can understand – that is what government should be working with business to do. In countries such as India and China, most farmers are illiterate and we need

to create special opportunities so that the hundreds of millions of farmers upon whom our food security depends are able to employ new technologies.

Regulation regimes should be the purview of the government itself, without assistance from business. This is about creating the conditions that will encourage agricultural producers to improve yields. Once again I will mention removing trade barriers, because the agricultural market is a global one. Restrictions on agricultural exports cause severe hikes in price volatility and investment risks for farmers, which raises the threat of unpredictable price increases and lower productivity among local farmers.

I completely concur with Mr. Weisz: the government should be active in everything concerning logistics. Many countries do not use modern technologies simply because their yields are already high and they cannot export the surplus. Regarding infrastructure for food transport and storage, the government has a huge role to play. I agree that these factors have a direct impact on the cost of production. In Brazil, ships carrying fertilizer have 30 to 45 days of demurrage each season, which naturally translates into higher production costs for agricultural products in Brazil.

There is a whole layer of problems related to subsidies, which is worthy of lengthy discussion in its own right. It is no secret that developed countries – the US and Europe, primarily – devote enormous financial resources to subsidizing their agricultural producers, which drives less developed countries out of agriculture because they cannot afford such subsidies. So less food is ultimately grown.

Biofuels have been another very interesting topic over the last five to seven years. In the US, 30% of corn and two thirds of all rapeseed is used to produce biofuels, although these tens of millions of hectares could be used to address the food challenge.

But I will stop here so that the other participants can speak too.

D. Almeida:

Mr. Baumgartner, before you finish, can I ask you one more question? Can you give one or two examples of what your company is doing in this area specifically?

V. Baumgertner:

What can the manufacturer of a technology, in this case a fertilizer manufacturer, do? We must increase, and are increasing, demand for our products because unbalanced use of fertilizers directly affects yields. For example, in the US they use 110 kilograms of fertilizer per hectare and obtain grain yields of approximately 60 centners per hectare. In Russia, they use 15 kilograms of fertilizers per hectares, and experience the corresponding impact on yields. Of course there are objective limitations related to climate and so on that we should take into account, but the correlation is clear.

To move forward, we have to do research and development and work with agricultural research institutions. In Russia, this would be the Pryanishnikov Research Institute, and worldwide, the IPNI, IPI, and other respected institutes. They develop methodologies, methods, and rules and then each country implements the appropriate programmes at its own expense: field testing, farmers' days, advertising, and educating a wide audience of farmers on how to use fertilizers and what the results will be. The process can be rather complicated: in China alone, there are hundreds of millions of farmers and it takes a long time to reach everyone.

Increasing supply is an important goal for manufacturers of technologies and fertilizers. Supply sets the prices for fertilizers and, therefore, the amount that goes into the soil. Uralkali and other manufacturers are actively increasing supply today. In the coming years, we will have double-digit growth in nitrogen, phosphorus, and potassium fertilizer capacity. In just the next seven to eight years, for example, Uralkali plans to spend USD 5 billion to increase production capacity.

D. Almeida:

Thank you very much. So, we have spent a few minutes talking globally, and relative to macro issues. I would now like to move to Mr. Guimaraes. Pepsi is

obviously a major investor in Russia. What do you see as Russia's role in this global issue?

E. Guimaraes:

Thank you, Donald. First of all, I would like to start by saying that agriculture is at the core of our business. We are one of the biggest food and beverage companies in the world, and in Russia in particular, we are the number-one food and beverage company; we are twice as large as the next competitor. This means that we buy 50% of the industrial potatoes in Russia. We are one of the largest buyers of milk products and one of the major buyers of fruit and vegetables and sunflower oil. So, for us, as a global food and beverage company, agriculture matters and Russia is a real priority.

What is our biggest concern in Russia, and overall? It is, first, that we need to secure quality ingredients for our products, and second, how we can manage commodity prices and volatility. We believe that making things better for us has a ripple effect, making things better for wider society. When we talk about Russia, there are good and bad things, as there are everywhere. On the positive side, there is a vast resource base, a lot of arable land, fresh water, and a government that has shown commitment to the sector. So, for this commitment, there are long-term policies, incentives, some economic growth and innovation, and we have seen a lot of yield, or rather quite an increase in productivity in Russia in the last few years. However, this is not enough. When we look to production, as my colleague said, the sector is very uncompetitive in many areas, with very low productivity. So this is issue number one, and number two, we still see a lot of seasonal volatility, and the weather plays a big role there, but we will have to see how to address that. The third issue is human capital – how do we bring bright people to this category and keep them in the sector? We see a big drain of young people, coming from the fields to the cities to look for opportunities. We have to be able to provide them with opportunities, and a reward, so that they can go back to agriculture. We have to make this attractive from a financial perspective so that we have more people

coming into the sector, but we understand that this is not only a government issue, but also a private company issue, because, as we said, we depend a great deal on agriculture; we have a role to play there, and an important one at that. We have to work with governments to move this forward.

Now, let me give you some examples of what we are doing in Russia today, and what we can do even better. We have a global policy that we look to source our products locally. It makes sense economically; it makes sense for the place. We started on a big agricultural project here in Russia in the mid-1990s, with potatoes, and today we source 85% of our potatoes locally, and we have been able, in these 15 years, to double the potato yield in Russia. We went from 13,000 tonnes per hectare to 25,000 tonnes per hectare. How we did that was simply by working closely with our suppliers, providing high-quality seeds, about which we have acquired knowledge from around the globe; providing harvest equipment, and educating the farmers in what was the right equipment; providing interest-free advances for them to be able to buy fertilizers and plant protection programmes, so that they have a way to continue to invest, in an interest-free way, in their business. We also provided access to expert advice. Not only local expert advice, but global expert advice, because we have an extensive agro programme globally. Also, we have been working a lot on putting workshops together so that these farmers can get together and share their skills, share their experience and share their knowledge. That is important, because they learn from each other. We have started to do the same thing, on a new programme. When we bought Wimm-Bill-Dann, they already had a programme in place, and we are continuing it. That provides, again, interest-free loans for the purchase of equipment, feed, etc., and also, we implemented this programme of shared knowledge among farms. We have our own farms in Russia, where we can experiment in technology and techniques that we then share with our suppliers. So, today, we are buying 1.8 million tonnes of milk across Russia. We have over 500 dairy farmers who work closely with us, and we are working in 30 different regions across Russia. Finally, from that human perspective, we need to continue to look for the next generation of experts; we are

working with leading agricultural institutes here in Russia to provide the right equipment, and the right training, because it is not only about getting these people, but also having the right curricula. How do we improve the curricula? How do we teach the right things, how do we bring the right techniques in? How do we share the information that we learn from around the globe, and that we can share with the local farmers? So, this is a joint solution. From the government we need consistency, policies that help us to continue to invest and to make agriculture a financially viable solution, so the right financing, the right subsidies. That is work that we have to do together.

D. Almeida:

Thank you, Enderson. I think we have just heard two good examples, from two world-class companies, as to how they are contributing to solving this issue, not only globally, but obviously, in Russia. Before we move to the government's view of this, are there any other panellists who would like to make a comment, either on the corporate view or on the role of Russia in helping to solve this very important global issue? OK. So, with that, I would like to pass the microphone to Minister Fyodorov, and get the Russian government's view of not only the government's role in this issue, but also how you view Russia's role in this very important global issue.

N. Fyodorov:

Thank you very much. Listening to the discussion on the topic proposed by our able moderator, I am thinking less about what we need to do and more about the mistakes that Russia should avoid. On the other hand, I am analysing what is going on and wondering whether we are pursuing the right agricultural policy at the moment. I am recalling the last century, in the Soviet Union. I was the Minister of Justice for the Russian Soviet Federative Socialist Republic and when I travelled with Mr. Silaev, Chairman of the Government, to the US, Canada, or Australia, the man in the delegation that people always wanted to see was Leonid Cheshinsky, a first-class professional and a very respected person. Businessmen from the US,

Canada, and Australia lined up to meet not with the Chairman of the Government, but Mr. Cheshinsky, because he was responsible for buying bread for the Soviet Union. We were highly dependent and to keep the country from falling apart, we had to scour the world for bread suppliers. I remember the treatise *On Agriculture*, written by the famous Roman politician Cato the Elder, who loved to say that a worthy man of the household should worry more about what to produce and sell than what to buy. I will give you an example of this.

Russia has experienced three droughts in the last five years. Had this happened in the Soviet days, we would have needed ten clones of Mr. Cheshinsky to save the country. But thanks to the state programme for supporting agriculture, during these very same five years Russia has become an even bigger player on the global food market. Going by the numbers, last year – the third year of drought – food imports into Russia went down by 5.5% while exports went up by 24.5%. The physical volumes of imported meat, milk, condensed cream, butter, corn, sunflower oil, unrefined sugar, and white sugar have declined several times over. Exports of sunflower oil are up 130%, corn 200%, rice 120%, buckwheat 290%, butter 12.4%, and meat by-products 250%. These numbers are thanks to the imperfect but certainly very useful tools contained in the state food security programme. Russia's potential as an agricultural producer is growing. Having overcome a lack of understanding and unhealthy competition – sometimes we are not allowed onto the market, in spite of our accession to the WTO (although it is early to make definitive judgments since we are only at the beginning of the process) – our country can play a more central role in rising to the global food security challenge. Recent trends show that the Government's policy allows us to do this. I can give you an example which demonstrates this: for the state agricultural support programme for 2008 to 2012, which included three years of drought, federal budget expenses totalled RUB 487 billion, which is less than USD 16 billion, and equivalent to RUB 95 billion each year. I have already mentioned the results we obtained in exports and imports. And for the state programme for 2013 to 2020, including additional resources that have already been activated, the federal budget is providing over RUB 200 billion each

year. And this is at a minimum. I am sure that if we set the right priorities for spending this money, we will remain major players and minimize the challenges, threats, and risks mentioned by the moderator. I am an optimist and support my colleagues here in this.

In Russia, there is a saying that people can solve everything. Working in rural areas is not very popular worldwide, we know that. Urbanization is happening everywhere from France to the US, to Canada, to Finland. Personally, I think that this process is leading to significant changes in people's consciousness. Tearing people away from the land causes civilization to collapse. That was how the history of Ancient Rome, which I began with, ended. We need to fight for agricultural labour, for rural life, and to support those working the land. The state programme calls for significant increases in federal budget funding to train staff and create comfortable, civilized conditions for living and working in rural areas. I would say that living and working conditions in the villages are the crux of the agrarian problem in Russia. I will end on that and will be happy to answer any questions. Thank you.

D. Almeida:

Thank you very much. Obviously there has been a lot of positive change in the last five years in Russia, including with foreign direct investment, which I think everybody would view as strategic. Could I ask you to talk about the two or three most significant issues that remain, and what the government is thinking about doing, relative to those issues?

N. Fyodorov:

We have to observe the rules and requirements of the World Trade Organization. To do so, we need to change the approach, methods, and tools that we use to support agriculture. This is an organizational, regulatory, and technical task. One important area of our work right now is unifying and harmonizing our veterinary safety system with that of other countries, which will allow us to be useful and reliable partners. Another area of activity is completing the drafting of technical

regulations for the Customs Union. Our activities should be understandable, accessible, and facilitate international cooperation. All of the issues touched on here are key problems facing the Government and the Ministry of Agriculture. We should provide financial support so that, for example, the quantities of fertilizer used can match the scientifically recommended levels, resulting in better yields; and so that we can use locally adapted Russian seed. Imported selected seed is of high quality too, but if we do not develop our own seed selection, adapted to suit Russia's land and climate, our problems with yield will not go away. Another technical challenge is to upgrade our agricultural equipment and methods: farm machinery, land improvement, and growing and processing techniques. There is also the social aspect of village life and living conditions for rural people. All of these problems should be a high priority and require continued political and financial attention.

D. Almeida:

Thank you very much. Before moving to our next panellist, do any of our panellists have any comments relative to what the minister has just said?

D. Pavljuts:

Yes, thank you, Donald. I would like to start where the minister left off. It is very clear that resolving the issue of the attractiveness of agricultural living is a big part of and a really critical element in the systemic problem of solving the food security issue. I tend to look at this from the point of view of value added. If we can add value to agricultural production, this is the way to actually increase quality of life for agricultural workers and people living in rural areas. In that sense, I agree with the points made earlier, particularly by Mr. Baumgertner, on the need to increase productivity, both in terms of knowledge transfer and technology transfer, as well as logistics. Basically, we are looking for ways to add value to agricultural production for those engaged in this business. It has to be a lucrative business, it has to pay a good living, so there is really no contradiction in that sense; it is part of the same puzzle.

Now, one point that has not yet been raised in terms of value added is niche production. I know we are talking about large-scale food security needs here, but at the same time, the increase of consumption and the growth of the middle class around the world actually indicate a need to create niche businesses. Ecological, biofoods, health foods which do not necessarily run the same course as mechanized, industrialized, large-scale production. We are not talking here about intensity alone, we are talking about the quality of how agriculture is run in specific areas. There will be more points later, but this is what I wanted to chip in at the moment. Productivity has many faces, and the point of productivity is to make it lucrative for the people who are engaged in the business.

D. Almeida:

Well, coincidentally I was going to move to you next, because in preparing for this it was clear that there are different views depending on the size of the economy. We have talked about Russia, which is obviously a huge land mass, and I was curious as to the views of you, from Latvia, which is relatively smaller and has some of the same issues, but a completely different profile. So, if you would like to share some of your thoughts?

D. Pavļuts:

Thank you, Donald. I would not say that it is really a completely different profile, in the sense that we are also in the moderate climate area, like most of Russia; we have many similar issues. We have the same heritage, so, part of our heritage in this sense is pretty interesting, as we have inherited large swaths of land which are basically very clean, unpolluted, and this gives us extraordinary opportunities, particularly in developing this eco, biological, healthy food area, which is a unique thing for us. There is still huge potential for us to improve the use of land, especially unused land by reintroduction. To put things in perspective, if I understand correctly, at the peak, Russia exports 20 million tonnes of wheat per year, more or less. Now, for the moment, Latvia can export 1 million, but if we bring in the million hectares

which are unused, and if we increase productivity, we could bring it up to 4 million tonnes per year. That is a comparable figure to the 20 million of Russia, and that is given a country with a size of 64,000 square kilometres: it is a small area by Russian standards. There really are issues of scale that come from productivity. I made a point about sustainable practices; I believe that it is a very important part of knowledge transfer, as well, and that is a specific area for added value.

I would like to make a point on government growth. It was touched upon, but I will make a few points on this. First of all, there are a number of things not to do, as the minister said. I think that Europe can show a lot of examples to other regions of the world as to what not to do in terms of subsidies, which actually bring about harmful side effects. If we look at the over-subsidizing of biofuels, it has brought about distortions in the food market, the indirect land use change effects, and this is now being debated a lot in Europe. At the same time, it is always easier to give subsidies than subsequently take them away; that is a much harder business. On the other hand, there are also incentives that governments can introduce to promote the use of unused land, because the wrong subsidy schemes – and we have seen that, in Europe – can actually promote underutilization of agricultural land. In that sense, there is a big responsibility for governments when we introduce subsidy mechanisms, to make sure that we do it properly, so that we bring about the necessary incentives. I think that I will stop here, but I am pretty concerned with biofuels and their effects. This is the first generation that has biofuels, and we really have to look for ways to make sense of the four Fs which were mentioned in discussion. How do we balance the food, the feed, the fuel and the fibre? The fibre we have not touched upon at all, at the moment, but that is quite a big industry for the future as well. As we move into more ecological materials, we have to set aside certain areas of land for producing technological fibres. Russia, Latvia, this moderate climate area also has potential for producing technological fibres.

D. Almeida:

Would anybody like to add to what was just said?

Y. Weisz:

I would like to agree with my colleague on this panel with regards to size, of any land, not being a very big impediment. There are really two major areas of agriculture, one is row crops, or very large, open planted areas, and the other are smaller, more specialized, niche crops. Their needs are very different. We have talked about agriculture in terms of new technologies, fertilizers, water, and so on, but it is in fact much easier to take this new technology and channel it towards small, niche crops. That gives the value added and gets the return back to the farmer in a more direct way, and in a more focused area. To irrigate a 50-hectare farm or 2,000-hectare farm are two separate issues, and I think that as the world does evolve to better food, and more food, the value-added niche crops, fruits, vegetables, flowers and even grapevines, for example, will see a lot of this investment. More, for example, than just simple wheat or corn growing.

D. Almeida:

Thank you, Yonah. Anybody else, before we move to a perspective from Italy?
Marta?

M. Dassù:

I tend to agree with Minister Fyodorov, on a very important point, in my view, that he raised, concerning urbanization. I think that you underlined the real problem. According to statistics, we know that 60% of the global population will live in urban locations by 2030, and that will make our food security problem much more difficult. So, the problem becomes the one you rightly mentioned, that it is hard to increase incentives for deciding to live in agricultural areas. In the case of Italy, this is made through small agribusiness. Italy is made up of an agricultural sector, which is a very important and developed one, but it is mainly founded on small to medium-sized businesses, and it is an interesting model, in my view. Notwithstanding the fact that we have such a structure, only 5% of the economically active population in Italy is

living in the agricultural sector, which is producing around 17% of our GDP. So, notwithstanding the fact that we have such a structure based upon small and medium-sized agribusiness, total figures are still depressing. I would tend to agree with you that we have to increase incentives, so as to be able to stop, or at least to moderate this tendency towards urbanization, which would become a real problem for food security.

D. Almeida:

Marta, I know that 2015 is an important date in Italy, if you want to speak a bit about that.

M. Dassù:

Sure, I can talk about that. I was replying to the other question, but I would like, if I have five minutes, to put two different points on the table. The first one is whether we are better off, or not, in the connection between food security and nutrition, I mean we must go from objective and open data, although this is not really easy because data are rather conflicting. My impression is that, at least on one side of the problem, that is first of all price volatility, as was previously mentioned, we are in a better position now compared to 2007 and 2008. And yet price volatility remains a fundamental problem. We still have, if we look at the connection between food security and nutrition, 70 to 80 million people who are still undernourished. This is a real problem, because as we know, that makes the active population much less effective. The point is, in my view, that undernourishment is not really due to food supply, but to poverty itself. So, we can and we must increase food production, increasing productivity, but this will not be enough. The problem of what the governments do remains key. As far as Italy is concerned, we consider food security to be one of our major foreign policy priorities. As you know, we decided with the G8 to launch a very important food security initiative at the last G8, last week, that was recognized as a major international effort. We earmarked, as an international community, USD 22 billion to this endeavour, and yet the results, as we were saying

before, are not so encouraging. So, my conviction is that we need to build up a working, new alliance between the private and public sectors – this is absolutely key. In fact, we launched this new alliance in Washington, in 2012, and Italy is fully behind that. We are enlarging the scope of the African countries participating in that. One key point of this alliance is the ownership of the recipient countries, so that they will be able to carry on. Under these premises, if you wish, Italy is going to organize an expo in Milan in 2015, and the fundamental point that we will discuss there is feeding the planet energy for life. I think that it will be a very important exercise, because it will really prove, in my view, the usefulness of a public and private alliance in this crucial theme of global sustainability. I am very grateful to the Russian government, first of all, because Russia was the first country to sign, with the expo in Milan, a very important and consistent agreement. I am sure that it will be a big success; we already have 130 participant countries, and I think that it will be an occasion to further discuss the kind of issues we are discussing today at this very interesting table, at length. Thank you very much for giving me the opportunity to present to you the usefulness of our expo, and if I may add one last point, the idea of the expo is a very traditional one. The expo in Milan will be the first new-generation expo, because the entire exercise will be centred around the theme, which as I tried to say, is a crucial one: feeding the planet. I think that it will be based upon this new alliance between the private and the public sector, so I am confident that we will be able to make real progress in food security and nutrition. Thank you very much.

D. Almeida:

Thank you, Marta. The spirit of the G8 is obviously working well, especially here in Russia. I would like the minister to maybe make a comment, if you would.

N. Fyodorov:

Our Italian colleague has given some very interesting and important numbers. Italian agriculture engages only 5% of the economically active population, but

generates 17% of GDP. Russian agriculture employs 10% of the population, and generates only 4% of GDP. So on the one hand, we have the potential to increase labour productivity. But on the other hand, these numbers illustrate an age-old Russian problem: high dependence on natural resources and reliance on natural resources for generating GDP. There is a sharp contrast with developed countries: we have our work cut out for us in improving labour productivity. The combined efforts of our partners – whether they be PepsiCo or new agriculture holding companies – can offer hope for the development of agribusiness.

Here is another thought for those interested in Russia. How efficient was the economy in the Soviet days? The country had 130 million hectares of arable land, of which 30 million was so-called fallow land, so 100 million were actually used every year. Now we use 78 to 79 million hectares, but productivity is much higher than in Soviet times. We have become exporters of products that we used to import: grain, oil, and sugar. We have huge tracts of arable land which could be used for both organic and non-organic farming. In recent years, our state support programme has succeeded in attracting new agricultural businesses and increasing cultivated land by 1.5 million hectares. This is not a lot for Russia, but on the scale of other countries this is a positive trend that we hope to see continue. Speaking as a representative of the Russian Government, I hope that our potential partners will take these facts into consideration.

D. Almeida:

Thank you very much. At this point now we may go to the audience for maybe two or three questions depending on how much time we have. So can I get the first question please? Please.

R. Feranoda:

Hello. My name is Robert Fermentoda, engineering firm Taberdeen. I liked the question that was raised on what if population moves to larger cities and we design and engineer large things, we see the same thing. If you want to build a factory

outside of somewhere you have to find people there. So, I like the question. Everyone who can comment on what has been done in Russia, what are your ideas behind this?

N. Fyodorov:

Let the agribusiness representative answer first, and then me. It is better that way, since they act, and we either help or hinder the process.

V. Baumgartner:

I will agree with the others here: urbanization may have a negative effect on food security. First, there is less land to be cultivated. Second, higher urban standards of living drive increased consumption. According to statistics, population growth of 1% results in approximately 0.77% growth in consumption of food products. But I do not think that we can halt this global process. We need to think about what humanity can do to respond to this. Take China, a large and important country that is home to 300 to 400 million farmers, if I am not mistaken. Almost all of them have only 0.06 to 0.1 hectares each. To increase labour productivity, they have to make farms bigger, which means planned migration of a massive number of people to large cities. For the time being, as I understand it, internal movement controls are what is holding people back. But eventually the Chinese Government will get to agriculture too, since the country is no longer able to feed itself in a number of crops. China's entrance onto the international agricultural market is one of the biggest causes of price increases for food products. Every year, China consumes 60 million tonnes of soya beans alone. That is a breathtaking number! Densely populated countries such as India, China, Bangladesh, Malaysia, and Indonesia will need to be more active in increasing rural labour productivity, and this is directly linked to urbanization. As for the situation in Russia, I will let Minister Fyodorov weigh in.

N. Fyodorov:

Thank you. Training is a matter of government policy. The Russian Ministry of Agriculture operates 59 agricultural and veterinary higher education universities, which include hundreds of institutions offering basic and intermediate professional education for mid-level specialists. There are 12 educational institutes serving the fishing industry. The total state education budget for these institutions is approximately USD 1 billion per year, and the institutes earn about this much or slightly less, as they are situated on particularly fertile and valuable land. That is one aspect of training.

Another aspect is the growing practice of training agreements between mid-sized and large agricultural holding companies and our educational institutes. Students, graduate students, and instructors receive training at high-tech agribusinesses. We are acting very decisively here, since as I said, increasing labour productivity is so important. Training meets the needs of the agricultural sector in quantitative terms, but not yet in qualitative terms.

If we go beyond just economics, businesses who are thinking about the future of the country and civilization should care about safeguarding the rural way of life and rural culture, because civilization is not maintained in cities. I think my colleague from Italy will concur with me here. So the job of governments, besides resolving the issues in the agricultural industry, is to maintain their civilizations and to remain interesting and attractive to neighbours, including as part of the World Trade Organization.

D. Almeida:

A response from Rome, yes?

M. Dassù:

Yes, thank you very much. Clearly, in Italy's model, there are links to rural and territorial issues. I would say, more largely, that radication is very important. We tend to emphasize, for instance, geographical indications in our niche production as a plus. So, generally, I agree on the risks of urbanization. Having said that, I would

also emphasize that if you decide to try to incentivize people to remain in rural areas, then you need, in any case, to build up infrastructures. That becomes key, because if you look at the experiences, not of advanced European countries, as Italy is, but if you look to countries in Africa, for instance, the problem of the lack of infrastructures and the lack of access to markets becomes a key problem. If you decide to push people to stay in rural areas, you need vital infrastructure links, at least, so that access to markets becomes possible. Otherwise, you condemn people to underdevelopment.

E. Guimaraes:

Bees go wherever there is honey. What I mean by that is that if you want people to stay in agriculture and work in agriculture, you have to make it interesting and attractive to them from an economic perspective, from a personal perspective. That is why it is fundamental, when we look at this, that we look to three key factors. One is efficiency; we have to increase efficiency, because as much as we might try to work against urbanization, it comes to stay, you just need to look to the pollution of the developed countries – it is going to happen. We are going to have fewer people in the country, so we have to make them more efficient. The second key factor is that making it more efficient is not only necessary to produce more, but you also have to be able to transport this product and allow people to trade in it, so there is a logistic aspect. The third one is that if the people stay there, you have to give them the proper training. We know what the right things to do are, what is the right training to give to these people, so that if they stay, they can produce more, they can make more money, and as a consequence be more attracted to agriculture. So, to me, efficiency is logistics but it is also interest – how do we attract the interest of the people so that they stay there? Just forcing people to stay will not work; you have to make it attractive.

D. Pavluts:

Thank you, Donald. Well, two points; first on infrastructure. Basically, both are on the attractiveness of agricultural living. It seems to be key to solving this macro problem of food security. On infrastructure, Riga agrees with Rome, and infrastructure is very important, including things like broadband Internet in rural areas, I mean how do you access all of today's services? Apart from being green and sophisticated in agricultural production, we also have to provide basic services to people living in rural areas. It is part of the puzzle. Now, the second point: of course, we are discussing the big macro issue of food security, and so it is easy to disregard much more subtle trends, but agriculture in the future can be extremely sophisticated in many ways. It is not only that food production is converging with fuel, and competing, we are also looking now at a trend that agricultural production is increasingly converging with the pharmaceutical industry, the cosmetics industry. We are looking at food becoming drugs, and a wellness product, so I think that with increasing urbanization, spending power, not only demanding food, demanding a whole host of different products and services, is emerging. This offers phenomenal potential for other markets, and comes back to agricultural living.

D. Almeida:

Thank you, I think we have time for one question, and maybe only one answer, or two.

D. Gogin:

Dmitry Gogin, Federal Agency for State Reserves. Like all of you sitting here, I am a consumer of agricultural products, although I perhaps consume a bit more than each of you. I had thought that today's roundtable would talk about an integrated approach to security. We have talked a lot about how to feed the population, but said very little about what to feed them. The Minister mentioned quality standards and technical regulations but the others, unfortunately, did not focus on this problem although food security is both a quantitative and a qualitative issue. Thank you.

N. Fyodorov:

I think the question is very well put. The topic of high-quality food, upon which our life and health depend, is an endless one. The issue raised could open up a special discussion on safety, quality, and standards. For example, if we imagine for a second, this could be discussion on a transition to different environmental standards, to organically grown food. There are representatives of many Russian and international mineral fertilizer companies here today, but I do not think this is any cause to clash: we need to harmonize the various approaches to provide for all the different segments of the growing consumer market. Thank you.

D. Pavljuts:

Thank you for raising the topic. Latvia has the capacity and willingness to help feed Russia with healthy, organic food. We have already established ourselves in Moscow, creating created dozens of retail areas and 'Riga courtyards' in the city. St. Petersburg is less familiar territory as yet, but with your help we have every hope of success.

D. Almeida:

Would anybody else like to make a comment on that? OK. I think that with that, we have come to the end of the panel discussion. I would like to take more questions, but it is almost exactly 11:00. As I said at the beginning, and as the minister just said, this is a very complex area, and we have just touched on it very lightly, over the last hour and fifteen minutes. I would like you, please, to thank my very distinguished and very international panel here for their tremendous contribution in the last hour and fifteen minutes. Thank you.