

RUSSIA AND EURASIA: AGRICULTURE AFTER THE COMMUNIST EXPERIMENT

Panel Moderator: *Ambassador James Collins*

October 18, 2017 - 1:50 p.m.

Introduction

Ambassador Kenneth M. Quinn

President - World Food Prize Foundation

I want to now invite the next panel to the stage. I knew it was three persons. I was wondering who was going to be the one to have to stand, but thank goodness the chair has arrived. So I want to explain that the leader of this panel is Ambassador Jim Collins, U.S. Ambassador to Russia, and was a treasured friend and colleague from our time together at the U.S. State Department. And ran into him in Washington, and I said, "You know what? We have these meetings, conferences, and we talk about Africa, we talk about China, we talk about Europe. We never talk about Russia and Eurasia." And he said, "I've got a couple of guys. Let me give them a call, and we'll put something together." Ambassador Asif Chaudhry, the U.S. Ambassador of Moldova, here, and Christian Foster, thank you for coming and standing in for our dear friend Gus Schumacher, and I know he was a good friend of all of yours.

I want to explain. You know, I have to appear at each event, and I have to run ahead of all of you to get there. So when this panel concludes, Cynthia Milligan from our Council of Advisors is going to appear and take over as the emcee for the rest of the afternoon, and I'll be waiting for you at the Borlaug Field Award.

So, Ambassador Collins, over to you.

Panel Members

- Amb. James Collins** U.S. Ambassador to the Russian Federation (1997-2001)
- Amb. Asif J. Chaudhry** Former U.S. Ambassador to Moldova and Vice President for International Programs, Washington State University,
- Christina J. Foster** Former Deputy Administrator for Trade Programs, Foreign Agriculture Service and President and CEO, CJ & Associates
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Ambassador James Collins

Panel Moderator

Okay, thank you, Ken. Now, as Ken said, we've been asked to talk to you a little bit about Russia, which doesn't really get a lot of attention, of course. But thinking about the issue of what we call food security – or how do you deal with poverty? – I think we might start out by saying that in the 20th century the Russian effort was to develop an entirely unique and unusual, different system of agriculture. It was based on state ownership of all land. It was based on collectivizing the efforts of agriculture into what they saw as cooperatives or state farms. And it was based on using technology collectively as well. It was also designed to be a planned economy, one in which the decision-making and the structures that would run the agricultural system were meant to be planned and commanded by bureaucracies and central planning.

Now, as many of you certainly know, this was designed in its propaganda and in what people talked about to be the answer to that problem of – how do you feed people, how do you make poverty and hunger go away? Well, it failed, as we all know. It failed miserably. The Soviet economy never really succeeded in feeding its own people. And in the end, it brought an end to the great communist experiment in the early 1990s and the birth of a new period in which the Russian experiment now is to try to change course and to bring something very different to bear to the challenges that that nation faces.

So what did they do? They did in 1992 throw out the old system, and agriculture for the last 25, 26 years, has essentially been a private sector enterprise. So that was one major contextual change, if you will. It was fundamental.

But the two other basic fundamental things that were done and have developed were, first, to introduce a market system and to make agriculture a part of a market economy, something that had not existed for most of the 20th century. And the second was to take that market economy and integrate it with the global system of economic trading and finance.

Now, the results of that have been pretty spectacular. I was in Moscow a couple of weeks ago, and the only thing they were writing about in the headlines in newspapers was that 2017 was going to be the biggest harvest of grain ever in the history of the Russian Federation. And 25 years ago, before that, they were importing grain from us and couldn't feed themselves. So something major happened. And I just want to set a sort of context for what I would suggest were the main things that have happened in these two key areas.

The market economy forced significant changes in four key areas. First of all, land reform. State ownership of agricultural land has basically been abolished; it now is in private hands. It's either in the hands of private farmers, in the hands of cooperative stock company farms, in the hands of agro-conglomerates that own land and have the farmers farm it, or in the hands of just individual peasants who have small plots. But it is private, and this has been a revolutionary change and in fact is something that never really existed in Russian history except for about 15 years at the beginning of the 20th century. So private land ownership and private management of farms has been the next major issue.

The second issue was structures – how did you organize this? You went away from a bureaucratic structure, and you were going to make a private system. What they essentially have ended up with is large farms, some small farmers, some modest farmers, but basically farms that are either joint stock companies in which the owners are the farmers themselves and the management, or farms that are owned by someone else but managed cooperatively. But the key difference is that the decisions about how you farm, what you farm, when you farm, and what you plant in fertilizer and everything else is basically residing now at the farm level or at the level of basic decision-making. And that has meant a huge change in the way people do their work. So the pushing down and the elimination of centralized decision-making to the level where people actually are affected by it has been a huge change.

Third change was the introduction of new, modern technologies. I mean, I basically can tell you that whatever the Soviets can do in intercontinental rockets, they could not build a combine. And when they did build one, it would leave about a third to 40% of the crop in the field in the field just by driving through it. So this was a major problem for them. And the introduction of new technologies, modern equipment and so forth has done in many of those things that our first speaker talked about. It has increased productivity and yields and accounts for a lot of the progress that's been made.

And finally there was the basic institutions of market that had to be developed, and that meant everything from the credit and banking system that supports agriculture to the marketing and storage and middleman roles of brokers and agribusiness that basically simply did not exist in the Soviet system.

So the market economy change has forced major change in agriculture, very practical change. Farmers today have the ability to control their own fate and future in how things work for them in a way that is unique for them for this generation. It did not exist for most of the 20th century.

Now, the globalized side had another set of effects, and I would simply give you three key ones. One, it engaged Russian farmers, farming community, agribusiness, everybody who was involved in the food chain, with their counterparts in the United States and Europe and in other parts of the world. And I cannot impress on you how much that has changed things, because farmers who were totally cut off from knowledge of what was happening, even in the nearest neighbors of Western Europe, suddenly found out there were all kinds of different ways to approach dealing with their day-to-day issues. And they absorbed a tremendous amount of this.

Western farmers also spent a great deal of time working with Russian farmers over the '90s and into the next decade. That knowledge transfer was a function basically of the opening up of Russia and its joining the global economic and trading community. And that you cannot underestimate as a major factor in how farming has developed.

Secondly, the opening of trade and technology transfer has meant, as I said, a huge impact on the way technology is now being employed. Most importantly, what it meant was that Western companies in particular found it worthwhile to begin to see Russian agriculture as a market for them, for their technologies, for what they could bring to it. And the impact of that has been transformative in many cases. That Soviet combine just doesn't get used anymore, and they have increased their productivity accordingly. The whole questions that our first speaker was talking about of storage, of using new technologies, and also now the introduction, particularly in animal husbandry and in the livestock side of genetics from countries like the United States, is transforming that world. And so you are seeing huge increases in things like poultry production.

And finally, the global system essentially also brought about institutional change. The entire system of work that brought in international finance, the way the global economic and trading system would treat Russian commodities and so forth, has built a capacity for Russia to trade and be an effective member of the global economic and trading system and has become now in some respects at least a major agricultural power.

So 25 years isn't a very long time, but it is a sense of what is possible when a society moves to open itself to the kinds of technologies, institutions and practices that modernizing agriculture has developed across the world.

So with that, let me turn the floor over to Asif Chaudhry, who knows much more about agriculture than I do.

Asif J. Chaudhry

Thank you. Let me just say that, as we started participating in this particular conversation now and our speakers before, something really jumped out at me, and that was – this whole conference is based on “Road out of Poverty,” and I thought, I am a good example of that. I was born and grew up in a very small, poor, backward village, and here I am in the center of the United States, eating eggs which are laid in condos. That's a pretty good road to have been taken. And the first two speakers actually highlighted something which really brought it all together for me. What they said was that human beings have a right to food and clothing and housing, and that's what was mentioned that Dr. Norman Borlaug focused on, that everybody has a... Well, those of us who have been working in Russia and the former Soviet Union, if you really think about it, that's what the Russians, even the Communists were saying – everybody has a right to food, clothing and housing, and food being at the center of it. So what is the difference between what they were talking about and what experts like Dr. Norman Borlaug and everybody else is talking about?

It really comes down to one thing that has been the key transformative force in even the former Soviet Union and Russia – and that is choice. What we are talking about is market. The Soviet Union took responsibility that they are going to feed people, but the way they did this is all centralized as Ambassador Collins was saying. So what I'm going to do is I'm going to give you just a brief glimpse of how the system was set up, and then we had some time together – in fact, Ambassador Collins and I served together in Russia at the U.S. Embassy, and we were there in 1998 when this big global crisis happened.

So what we really find out is that in the Russian agricultural food history, there are two key inflection points. There are two key years that we always need to keep in mind that lead us to

the conclusion of where we are today and where they're going to be tomorrow, which is what my friend, Christian Foster is going to talk about.

So the first key year is 1992, and the second key year is 1998. Prior to 1992, the Soviet Union broke up, '91 – it was breaking up towards the end of the '80s. but if you really look at the last ten years of the Soviet Union, what you find is that is really, when they thought that they had arrived at a point of a great pinnacle of how agriculture should be run. And the way they decided it was supposed to be run is that some bureaucrat sitting in Moscow was going to make a decision as to what was to be produced, how much was to be produced; and that bureaucrat was going to make a decision of what kind of inputs were to be provided to the farm owners or people who were managing the farm – there were no farm owners; those were managing the farms – and what to do with the product. That's where everything started unraveling, when somebody who has no clue about agriculture is making a decision. And that's why sometimes they would grow things like corn and wheat in areas, in climates where they had no business growing corn and wheat.

So the farmers who are working on the farm, there would be a manager and there would be people, but the thing that really stood out for me when I went there in the '90s is that a farm which would be run by a family in Iowa or in other parts of the United States was being run and managed by two, three hundred thousand people. And this farm had the responsibility for all of their social support, and the manager had the responsibility to make sure that we had the inputs coming in and the outputs going out but never had to worry about what happened to those inputs, nor had to worry about what happened to the outputs. So there was actually no incentive to them that they would be efficient or they would do agriculture in a way that made sense. In fact, if you did well, your budget for inputs would be cut back because you don't need it anymore. And if you did well in some of the output, that product was procured and purchased by the state right away and shipped off to international trade.

So there was no incentive for the farmers to be, those who were involved in farming, to be efficient. The state had the responsibility for international trade, and that included making a decision what to export and what to import. And as part of that responsibility, they would say – We are going to provide the consumers with everything from food to clothing and everything, regardless of where those people were. So sometimes there were import commodities and products from overseas and give them to the people at a price which was an artificial price and subsidized by the state. Even the imports were subsidized to keep the prices at a certain level. So the idea really was that people had to be happy as long as they were being given, you know, food and clothing. And they could actually go out and tell people... I was talking to a friend in the Ukraine. He said, "During the Soviet time, the Communist leaders would come to our village and say, 'We are trying to collect shoes and old clothing so that we could send them to the homeless people in the United States.'" Anything was possible, because people were being given the information they were being fed and the commodities and food that they were being fed. Everything was controlled. So that is the system that did not work that Ambassador Collins was referring to, and it actually failed because there was no way to sustain it.

The point about the meat sector, for example: The Soviet Union decided that they were going to increase the consumption of meat because the protein had to be at a certain level. They were way below any European country at that point, but they decided that they were going to do it, and they tried to do it with two ways, two methods.

One, they decided that they were going to import meat from other Eastern European or possibly even some Western European countries but at the same import large quantities of grain in order to expand the production of meat, livestock numbers in the Soviet Union, again whether it made sense or not. And there was a time just before the breakup of the Soviet Union when the meat consumption in the Soviet Union, in spite of all the issues and problems, was at par with several Western European companies. But nobody thought about where is it coming from, because the amount of money that was going in, at one point almost 20 to 30%, in that range, of the amount of money, of the hard currency of the country, was being spent on these kinds of trading subsidies and consumer subsidies.

It was a system that simply wasn't working. And once the Soviet Union broke up, in 1992 a brave move was made under President Yeltsin. His chief economist at the time was a guy named Gaidar, who instituted these reforms that set the stage for truly what we have seen today, in spite of what happened in 1998, which had something to do with this but mostly with the other macro-economic factors. But those policies really set the stage for the change of structure. The large farms were privatized, and they became all the things, you know, from joint stock companies to cooperatives and everything else. But the fascinating thing in those was that it was hard for the state to give up control.

So everybody that you talked to, any large state farm or a company, there would be what they were called, a "golden share." Each state owned a golden share in each of these state companies or farms. And the purpose of that was that the state could still control. That golden share meant that they had a veto power over the decision-making process, although there was no structure left at that point to really use it, but it was a slow progress. So prices were liberalized, subsidies were done away with, and as it happened in any case, the transition was not easy. The prices of imports rose sharply, the prices of outputs were not rising as sharply, although they still rose. And part of the reason was people's incomes weren't growing, so there was real disparity between people's income, prices of outputs and the prices of input – and that really did distort the market, although there was a true middle class during that period of '99 through '98 coming up. But the system wasn't really gelling yet.

So as this time continued, then came 1998. And in 1998, as we were talking over our lunch period, that we were in Russia at the embassy at the time. And one morning we woke up, and we found the ruble had crashed from 6 rubles to a dollar to 30 rubles to a dollar. And part of that was the larger macro-economic factors which were because the domestic debt was not serviced – there was no ability – and the ruble was floating, and there was no protection for the ruble.

A number of other factors connect to that, but the worst thing that happened was that was the year when, in Russia, their domestic crop, which the year before was about 87 to 88 million tons, that year there was weather-related issues and other reasons, the crop crashed to 45 million tons. So imagine a country which is importing about 40 to 45% of their domestic consumption from abroad, overnight because the ruble crashed, they are no longer able to import those commodities and products. And at the same time their domestic production goes from 88 to 44 million tons. So the domestic crop is gone, and imports are gone. And it is a literal fact that ports were shut down, railroad was shut down, factories were shut down, processing facilities were shut down.

That is where truly... That's the kind of stuff that makes me proud to be an American, because the United States of America once again – just like they did in the late '80s and early '90s –

stepped up and said, “We are going to help Russia get through that shock.” And we put together, under the leadership of Ambassador Collins, we put together perhaps up to that point the largest assistance package that the United States Government had ever done anywhere, and there was a billion dollars’ worth of food aid commodities to bring into that country that led to... And by the way, in that package, we had seeds, we had feed for animals, we had food for people. We ran food for orphanages. The churches were involved. And we took part of the commodities, and we said we are going to monetize them, sell them at prevailing market prices at whatever we could sell and use that money, put them into the Russian pension fund. For the first time, the Russian pensioners, they caught up from what they had not been paid for months of pension arrears.

So we did a lot of good as a result of that package. But the absence of the foreign competition – 45% of the commodities that were coming out from outside – it really provided..., that shock provided the Russian agriculture sector the opportunity to fill the void and come in. I remember going out as an embassy officer, looking at the farmers, their storage units and looking at the storage in the countryside – everything was absolutely bare. And from that point in 1998 to about 2000, in about two years, was truly a rebirth of Russian agriculture, largely because of that shock that was absorbed with the help of the United States; and later the European Union also came in and offered a smaller package, a program. Our poultry offered, in fact, assistance to them in the form of a model poultry processing facility so that they could see how poultry processing is done in a modern way. All those things put together laid the foundation of this rebirth of Russian agriculture. And from that point on, Russian agriculture has really been on a path that my friend, Christian, is going to talk about; that they have become a powerhouse.

The thing that we should remember, the last comment I would make, is in Russia there are still two agriculture sectors. There is one agriculture sector which is still run by the oligarchs and people who have the money and they’re able to buy the machinery, and they’re able to use the methodologies, so they don't have waste. But there is a rural agriculture sector in the far-flung areas where they may not have access to that level of credit and machinery, and so they are still struggling.

So all it really comes down to – access to knowledge and science and support, and it all comes down to the ability of those people to farm and have the choice. It’s all, for me, it’s all about market economy, and that has been the foundation of this turning point of the Russian agricultural economy.

And, Christian, you can talk about what has happened since then, and where are they today, and where do we expect them to be over the few years in terms of the global stage.

Christian J. Foster

Thank you, Asif. I'm primarily an agriculture economist and commodity person, so I'm coming with numbers. So get ready. Take notes.

I want to say, basically what we’re talking is a country, as you heard, the Soviet Union, that for almost the entirety of its time was importing grain to survive, importing 40 to 50 million tons of grain to survive. And the United States was the supplier, so we had it good.

Now, what I'm going to do is cover, basically, from 2000 to 2025, those years ahead, and talk about how Russia, Ukraine and Kazakhstan, the real powerhouses, how those three countries

combined are going to be putting, dumping, supplying the global market with a hundred million tons of grain, possibly, by 2025 – so going from the biggest importer to a grain superpower. So Russia is a superpower again. We'll see if it's going to last very long though. That's what we're going to talk about.

I should put it in context. You're going to hear a lot about changes and positive movement. Russia is far from a fully functioning market economy. The agricultural, the land markets are far from smoothly functioning land markets. Farms still have a way to go in terms of restructuring, but a lot has changed, and its movement towards a free market economy is what's done it all.

So I'm going to quickly look at how it rebounded, starting in 2000, how this region became a new grain powerhouse. Then I'm going to look at the factors behind that revival, including the sanctions that occurred in 2014. Then I'm going to take us out ten years from now, looking at where trade is going, global markets, and what competition the United States is going to be facing. And lastly, I'm going to end with a bunch of questions for you, about a dozen; because it's those questions and the way they're answered is what's going to determine what happens to Russia out by 2025 and if it can remain this grain powerhouse of exporting almost up to a hundred million tons of grain, mainly wheat – world prices will determine that.

So as we heard, there was a striking turnaround in Ag performance after Ag reforms were introduced. All of a sudden, we see grain areas shifting. We're adjusting to a market economy. We're throwing out those lands that are marginal, that are way too costly to produce on. And we saw a grain area fall 32% during the reform period, and starting around 2003 it bottomed out; and now grain is actually, grain areas have actually increased by about 12%. Wheat area has actually gone up 25%.

What does this mean in terms of output? Well, it's a smaller area, so that means yields must have increased; because, while grain production fell by 39% after reforms since 2000, wheat output, for instance, is up 100%. Total grain output estimated this year, 2017-18 crop, is at 130 million tons. I'm talking just Russia right now; 80 million tons of that will be wheat, and indeed this is considered the highest ever for the Russian Federation, not for the Soviet Union. We'll see if we get there. They're still harvesting the last remnants now. And of course we're talking volume, not necessarily quality.

I'm going to skip developments in the livestock sector and other crop sector for now; I might come back to that. There's too much to say on grain. But needless to say, when we talk about the region as a powerhouse, it's a grain powerhouse, not in the meat industry, and certainly it won't be exporting to any significant degree, vegetables, potatoes, fruits and meat products. That's not to come.

So now let me run through a number of factors that have given rise to this increase. Well, first of all, the reforms which were mentioned made a huge difference in terms of how decisions were made, and it made a complete restructuring in production, consumption and trade as a result.

Finally, all of a sudden, market signals are being sent and received, and people are making decisions freely, not based on what the state says. Nextly, the Russia macro-economy gets a real bump. Guess why? Oil prices jumped. They were about \$30 a barrel in 2000. By 2008 oil is at a hundred dollars a barrel. Russia likes to export oil and likes those high prices. So just in time, we get this rise in oil prices. What happens – GDP in Russia now on an annual basis is growing

5 to 10% a year. That's from not growing at all, and all of a sudden between 2000 and 2008, as prices rise, GDP is going up as well. Of course, it fell a little bit later after the sanctions. It's been running negative for the last few years, but we actually expect that to become positive very soon.

Another issue, a very simple point—production outpaced consumption. All of a sudden you have a much smaller livestock sector; that means much less grain so you have a surplus of grain, particularly wheat. Obviously, that would help.

I want to touch real quickly on what was said on what happened in terms of the farm structure. We have three types of entities in Russia today, basically the same applies very much so in Ukraine and Kazakhstan. The big state and collective farms gradually were privatized, the land was privatized, the management changed. You start getting better decisions and still have a long ways to go, I would say, but they're making much better decisions based on supply and demand for the first time. Many of these larger farms, which we call, whatever—ag enterprises, I'm going to say, agro holdings or corporate farms you might call them—these larger farms all of a sudden start getting outside investors who are in the oil and chemical and arms business; and they're investing their money in these big, large farms. What's a basic agro farm run, or agro-industry? 6,000 hectares. That's 12,000+ acres. That's a pretty darn, big farm. So that's the corporate structure of farming in Russia, (I'm going to jump ahead here) and it produces about 50% of total Ag output, 50%. It has about 70% of the land that these large corporate farms, formerly state and collective farms.

The next thing is, are all the farmers that still live near the village and get the benefit from the farm, and so they have all their plots, sort of a symbiotic relationship where they're growing, connected to the farm, and they get special treats from the farm. And they're growing a lot of the fruit and vegetables, the non-row crops.

And then lastly, this needs to be made clearly. We talk about a family farm here in America. Well, family farms was the big thing when reform started, but family farms are still about 175,000 right now, not many. They weren't the ones sort of helped out when the government established the reforms to subsidize and to free up things. And it's these family farms that only account today for 12%, 12½% of total farm output, so they're not a big part of the ag structure, but they're there. As I say, they are a big part when it comes to potatoes, vegetables, fruits and so on.

Continuing—what made this big change towards higher production? Well, we talked about it improved farm operations because of the farm restructuring, the farm privatization, freedom to make decisions. They also shed a lot of their labor force. As Asif said, the farms were run by two or three hundred people when you needed maybe five. What's happened in the last few years is that the farms have shed over 40% of the people that worked on them. So the latest figure I have for Russia farms, folks in the agricultural sector employed were 10 million; it's now 6 million. That's about 9% of the labor force now; it was 14. In Ukraine and Kazakhstan, it's still about 18%, not quite the same.

Another big key factor is—guess what? You have farmers making decisions and farm owners making decisions, and they're going to start finally to think about specialization for the first time. Before, there was non-specialization. The state said every region will be self-sufficient—it didn't make any sense. What happened was, in the restructuring of farms, most of the production started moving south, the central areas, which were the best in soil, the best in

climate, the best in infrastructure, and guess what? They were close to the Black Sea ports and the Sea of Azov. So you had that movement, which made a big difference, and you had a lot of vertically integrated farms develop in that area.

What happened is farm profitability really changed. At least according to official statistics, under the Soviet Union – and I don't believe this – it says 40% of farms were profitable. I would say it was more like 20%. But now the numbers officially are that 83% of farms are profitable in Russia today. Anyway, it may not be exact, but it does tell you something.

In terms of how did land reforms help? And land reform is key here. Ukraine is held up. Ukraine still hasn't advanced. I've heard maybe the World Bank is going to insist in its latest package that Ukraine actually start to do something on land reform. I know I have some Ukrainians here. I'd love to talk to you later about when you think that will happen. Because, obviously Ukraine has the best soil in the world when you look at that black soil there.

Anyway, they adopted land ownership, private land ownership in '93. They established the Land Code in 2001. But it still didn't really create a land market, because you can own land – that doesn't mean you can sell it or buy it. So it's only been very recently – and Z. Lerman, an expert on this, writes that, "Only recently have land markets started working, and the necessary preconditions are there. So the land is privatized. The land owners have the legal rights to it. The prohibitions about buying and selling are now gone. Seventy percent of the land is privatized, and land leasing is permitted." Big change. It doesn't mean there's not big impediments to a full functioning land market. I won't go there right now.

Another factor that helped boost and give a recovery to the Ag sector, Ambassador Collins was talking about technology transfer – a big issue. When Russia finally integrated with global markets, all of a sudden you start getting investors looking at this, and you get finally Ag technology being imported that is far superior than what you would have found in the Soviet Union. I always think of going to a Soviet collective farm, and they'll have 50 combines; 2 work, and 48 are there for spare parts. That was how the Soviet Union used to work. You couldn't really rely on what you had there. So technology transfer, a big issue.

Input use – fertilizers fell dramatically over reform periods. No surprise, because the state told you – you will apply this amount, whether you needed it or not. Those rules vanished. Application went way down. They didn't need it. They were overusing it. They were misusing it. They were wasting it. Anyway, fertilizer now, which having fell..., by what amount?. I don't have that here, but I can say this. It has now increased in use, finally. And on a per-hectare basis, it's now 155%, because we have a much smaller area that's being fertilized.

Mentioned tractors and combines – we had the first speaker talk about his excellent machinery. Tractors and combines, inventories fell by 80% during the reform period, mainly because most of the inventory didn't operate anyway. Now all of a sudden you do have new equipment coming in from the West, working much better, doesn't need to take, or scavenge parts from other equipment, so you're much more productive. And in fact, finally, we have more combines per hectare than we did before.

Two more here I want to hit on – some key things about why we had a recovery, and then I'm going to talk about the future.

The Russians in their policy area established several new policies that prioritized agriculture for the first time in 2005. There was a big, new order about making it a priority that hadn't been the case before. And they actually stepped up and provided funds to back up this priority. Then in 2013, they developed their first-ever state program for development that was really, I must say, the closest thing I've ever seen to reflect the U.S. Farm Bill, that really illustrated every line item, what was possible. It listed measures for evaluation, which I couldn't believe, because, you know, it's all about your success.

Anyway, the key thing about all of those policies was about accelerated import substitution, greater export promotion, supporting Ag credit systems. We talked about this at lunch today – how do you help farmers at first subsidize Ag credits that might help them get going. If you're going to subsidize, that's maybe probably the more effective way of doing it. And then they also finally let regions make decisions around the country and not be sort of the centralized as before. Lastly, I want to talk about the sanctions. As you know, Russia invaded Ukraine. Russia still is occupying Ukraine. Because of that, the West instituted sanctions and has updated those quite regularly.

In response, Russia instituted food bans. Now, some might say they were forced to do that. They chose. I'm saying they chose a food ban, because once again it put pressure on their Ag industry to perform, and it kept the competition out. Russia had always been dependent on foods for about 40% of all of its food products, 40%, a huge net importer. Meat, 25% of all meat consumed was imported, dairy 20% and so on. But now farmers are encouraged to fill this gap. What happens, indeed, there is a side effect. All of a sudden, we do see some generated growth in production. We certainly see domestic producers are protected from foreign competition, and we see a lot of Russian consumers that don't want to buy Russian food now have to; and they switch, and things happen.

And the last part I have to say – and Asif, I think, mentioned this – the last decade has been a really good decade for weather in Russia. So a lot of this luck. In the '90s, weather was really bad. I mean, if you looked at USDA's meteorological reports, and particularly rainfall, it was really bad. In the early 2000s and so on, it was quite good. So that's a big part of it.

So now let's talk about this region as a mega-powerhouse for grain production. Just a little context here: Even though Russia is exporting tons of grain, millions of tons, it's still a huge net grain importer. It's had a negative grain..., or I'm sorry, not grain, Ag importer. It's had a negative Ag trade balance for the longest time and still does. Even today it has a ten billion dollar trade deficit in agriculture.

It doesn't mean it hasn't had good things. Now we have, Ag exports have risen to \$17 billion. It was only \$2 billion in exports of Ag products in 2000. The big debate is... – and here's a question for all of us down the road – Russians are fighting over exports of grain while they top exports of arms. Well, they're certainly not going to top exports of oil, because oil is the biggest one. But there's a big debate now. Farmers are trying to say – we're going to beat you in the arms industry at least.

So Russian Ag trade – mainly, wheat. It's mainly an importer, as I said, and that's mainly meat products and all the other things they can't grow – citrus, coffee, vegetable oil and so on. By the mid-1990s, having imported 30 to 50 million tons every year during the '80s, they're now importing and exporting are zero. Then all of a sudden, by 2005 Russia is exporting 10 million tons of wheat. By 2015 Russia is exporting 20 million tons of wheat. And this marketing year,

USDA estimates it could export 35 million tons of wheat, just wheat – not talking quality, by the way. USDA also does a forecast of exports and trade for the next 25 years, and its export projections it did in early this year, it said Russia would be on average exporting 30 million tons of grain. Well, it's already going to export more than this year. We'll see how that works out.

Russia is already the largest exporter of wheat in the world. It's beat out all of Europe combined, and Canada and the U.S. And when you take Russia and you add in Ukraine, and you add in Kazakhstan, all of a sudden you get a hundred million tons of exports potentially by 2025, maybe 70 million right now.

Where is all this going? Russia is on the Black Sea, the Sea of Azov and has so much production in the south, that grain is flowing out to Egypt and Turkey, primarily, a billion dollars; each country is importing wheat. The rest of it is mainly going to the Middle East, a little to Central Asia and to Africa. Nigeria is importing quite a bit. But mainly the U.S. is losing its markets in the Middle East and Africa, as Russia, Ukraine and Kazakhstan fill those markets. Fortunately, we still have the Americas, we still have the Asia, and we have, well, I guess, South Asia, and East Asia.

We project U.S. exports of wheat growing each year, but guess what? We project the U.S.'s market share falling – not a whole bunch but falling – over the 25 years ahead or 20 years ahead; whereas, it looks like Russia, Ukraine and Kazakhstan could have a 30% market share.

So a few questions I want to end with in my last six minutes. We got time here. So a few questions real quickly.

Can Russia maintain this? Well, the question is – Will the global economy still grow? It's growing very steady right now, at a low pace, though.

The other question is whether Russia's macro-economic situation – think oil prices – will continue the way they've been or not. That will have a big impact. By the way, FDI in Russia has fallen substantially since the sanctions began, so that's not helping Russia at the moment. If the ruble exchange rate for Turkey and Egypt, the biggest importers, change, that's going to affect things quite dramatically. I spoke to someone today – if world market prices for these commodities change significantly, you might see Russia growing much more soy, sunflowers and corn and away from wheat.

Climate change, I have it, of course. If you read about climate change and what it's going to do to Russia, good and bad, you're going to be able to expand northward and eastward, out in Siberia. Those aren't the best soils, though, and there isn't any infrastructure there. And the bad news is the southern region where all the production is, they're going to be the ones hurt. And this is not a good thing for Ukraine, that's in the more southern part.

We've covered so much of this, yes. Okay, so I'll mention two more things. Is there a lot of room for yields to grow in Russia, Ukraine and Kazakhstan? Yes, there is. Their yields are quite low compared to Western Europe, quite low compared to the U.S. Ukrainian corn yields run well below what Argentina and Brazil and the U.S. do.

So to conclude, we'll have a question or answer maybe. To conclude, I suspect Russia is going to remain a big grain exporter for the next 20-some years, taking away share from the U.S. But

when it comes to—is Russia going to be an Ag superpower?—my answer would be no; because in terms of other products and commodities it's certainly far from being a surplus producer.

Ambassador James Collins

Thank you, Christian.