

Workshop Review: Andrey Konoplyanik—An Interview with Gazprom Ex- port Adviser

—*Lauren Bardin and Nicholas Watt*

Dr. Andrey Konoplyanik taught one of ENERPO's core classes entitled, "The Evolution of World Energy Markets." During the spring semester in 2013, the only way Dr. Konoplyanik could maintain his duties as advisor to Gazprom Export and as our professor was to take a train from Moscow to St. Petersburg in time for Friday night lectures. He would deliver another lecture to us Saturday morning and return to Moscow that same afternoon to resume his work there.

Dr. Konoplyanik is an energy economist who began his career in the Soviet Union as a researcher at the USSR Academy of Sciences and later as an analyst in Gosplan. In the first two years following the dissolution of the Soviet Union, Dr. Konoplyanik served as Russia's Deputy Minister of Fuel and Energy and continued his work with the government as a non-staff advisor to Russia's deputy prime minister until 2002. Dr. Konoplyanik then became increasingly influential in the Russia-EU dialogue, serving as Deputy Secretary General of the Energy Charter Secretariat in Brussels, Belgium until 2008. Dr. Konoplyanik currently chairs the International Oil and Gas Business department at Gubkin Russian State University in Moscow and also advises the director general of Gazprom Export.

Given Dr. Konoplyanik's experience in the Russian government, in the commercial world, and in academia as an author of over 400 published articles, we, as his students, requested an interview. On Saturday morning March 30, 2013, we sat down with Dr. Konoplyanik to discuss issues facing the Russian energy industry today. Topics ranged from

the relationship between Gazprom and the Russian state, the effects of the US shale gas, Russia's independent gas producers, and the South Stream pipeline.

The following is a transcription of the interview and has been edited for length and clarity.

Lauren: President Putin has acknowledged the US shale gas revolution and has urged Gazprom to respond to its effects and think more strategically. Why has Gazprom continued to think in the short-term?

Dr. Konoplyanik: I think that any company, especially a big company that has its long-term policy in some region has a long-term development strategy. If there are some regional changes, it needs to adapt its policy. Usually the bigger the company, the longer it takes for the company to adapt to these new changes. From my point of view, Gazprom has been establishing its long-term policy in Europe for more than 40 years, since 1968, and the philosophy was based on the development of the long-term contracts with their oil indexation or petroleum products indexation.

It took time to understand that all the political statements of the European Union advocating deviation from fossil fuels were not just political rhetoric but a system of actions.

Now there is a challenge and the challenge is that there is oversupply in the European Union market, their spot prices are going down while long term prices are quite high. Gazprom is losing its competitiveness there and we come to the question: Why is Gazprom not immediately adapting and converting

its projects and contracts to spot. My answer is that the adaptation first of all needs to be clearly understood and that these changes are not temporary. Not only within Gazprom but within the whole gas community in 2009 when these first changes took place, the first impression was that it was just short term changes. It was not clearly understood that these trends, like moving toward a less carbon-based economy, deviating from fossil fuels, improving energy efficiency, and increasing the role of renewables, were long-term. These issues were not taken so seriously by the community because at that time all these programs presented by the European Union were just tested by practice. In 2009 the spot market grew and spot prices went down to almost 50% of contractual prices. It took time to understand that all the political statements of the European Union advocating deviation from fossil fuels were not just political rhetoric but a system of actions.

The second point was that Gazprom needed to assess how long the situation would continue because a long-term policy of deviating from fossil fuels could mean a slowdown in the increase in demand of gas. It was not expected that demand for gas would go down or be stable. At that time, it was Gazprom's understanding that it would take three years for gas demand to decline and the combination of the economic crisis and the new economic policy of the EU would result in two levels of prices: Lower spot prices and higher contractual prices. So initially it was expected that it would take just three years. It was understood that it would be a temporary, not a long-term phenomenon.

Thirdly, when you have long-term contracts you need some time to adapt them because many parties are involved in the negotiations. At that time, the pressure on Gazprom from its clients (like the pressure that was on Statoil, Sonatrach, and other companies that were selling their gas long-term)

was not so strong because the clients' losses were not as big as they are now, with accumulated losses from three to four years of changes and crisis. On the other hand, pressure began to grow as negotiations to adapt the contractual structures took place. It was something like a transition period for understanding that adaptation was a must, and that all these changes in the EU were not short term. Adapting a long-term policy of such a big company like Gazprom takes a long time; the bigger the company, the more time is objectively needed to adapt this.

At first there were some very small changes. They were just trying to adapt formulas by downgrading take-or-pay, deviating from obligatory penalties, or adding a larger role of spot. It took time to make these long-term. Secondly, it took time to make the technical changes. The adaptation has started, but the question remains: Why is Gazprom still in favor of oil indexation despite the fact that it is losing competitiveness? Each producer is trying to receive the maximum price, the upper investment price for its gas. In this case, oil indexation helps Gazprom provide payback investments for its projects. Additionally, they are under pressure from the financial community, which provides debt financing and is interested in shortening the payback period - the shorter the payback period, the lower the cost of capital because it is more predictable that you will pay back this money. So the financial community is also in favor of this.

From my point of view one of the most important factors - maybe the most important factor - for keeping oil indexation is the state. The state is the major stakeholder in Gazprom, which means Gazprom may not be the decision-maker itself but more the implementer of decisions made by its major stakeholder. Here I will assume, though I could not prove it in a court, that it is the state forcing Gazprom to stay as long as possible with the high level of price and oil indexation. Partly as a result of

duma election in 2011 and presidential election in 2012, there were a lot of costly social promises made by the state to the population and these promises need to be fulfilled. Immediately after the president was elected in May 2012, there was a series of strong statements made by Mr. Putin saying that all these obligations need to be implemented and all these promises made to the military or the social sphere are very costly. Unfortunately today, my country only has two major sources of revenues with which to do this: Oil and gas. Additionally, competition in the international markets is increasing and markets are narrowing for all other goods. So that means that the relative value of oil and gas increases as sources of export revenues.

This is why the adaptation is slow...because of the continuous debate between Gazprom and the state and the necessity to find equilibrium between the short-term (high earnings now but loss of future market niche) and the long-term (lower earnings now to protect future market competitiveness).

So this is why Gazprom is *obliged* to go more short-term. Maybe it's not its will, not its managerial will - I would assume that Gazprom, as a company, definitely has a commercial thinking and thus understands that here is the short-term thinking: You are earning a higher price today but you are losing your market share in the future. The state and its politicians have a shorter period of forward thinking (just within the electoral cycle – it is no longer four years, but six years) which could explain Gaz-

prom's higher prices. Despite debate about future gas demand in Europe, Gazprom's own forecasts show that there will be an increase in demand in Europe that is not yet contracted, which will provide Gazprom with a market niche. Gazprom needs to be competitive for this niche, so that does mean that if there are alternative lower priced supplies, Gazprom might lose. It would like to be competitive and practical, but if it is forced to stay at a high level of price, it is not so much Gazprom's philosophy but maybe just pressure from major stakeholders to receive today's earnings in order to fulfill social obligations made during electoral campaigns.

From my point of view, this is why the adaptation is slow...because of the continuous debate between Gazprom and the state and the necessity to find equilibrium between the short-term (high earnings now but loss of future market niche) and the long-term (lower earnings now to protect future market competitiveness). It is not because Gazprom is foolish or doesn't understand; the task is much more difficult and contains several players in the debate. The Third Energy Package could make Gazprom lose out because it makes it difficult to guarantee revenues in the future, which is of course making it harder for the debaters to make a decision. That is why this adaptation process is going slower than I would like it to go.

Nicholas: I want to ask you about the economic rationale behind the South Stream pipeline, but before we go there could you illustrate the reactions from Brussels and Kiev to the gas crises of 2006 and 2009, which can be considered as motivating factors behind development of this pipeline?

Dr. Konoplyanik: The unfortunate crises of 2006 and 2009 between Russia and Ukraine has multiple effects for all parties concerned - for EU, for Ukraine, and for Russia - and we need to understand the economic logic behind South Stream within this triangle of post crisis effects for the three parties

concerned.

In the European Union, it resulted in a directive regarding security of supply that I think was approved in 2010, and which established a number of obligations for member states of the EU. Even though there existed some thought in the EU about implementing these obligations before the gas crises, they were the catalyst that pushed the EU toward enacting new policies. Each country now needs to have at least three sources of supply; each country needs to have a number of interconnections that will bring together neighboring countries; each country needs to have opportunities for reverse flows. On top of this, the member countries of the Energy Community Treaty (EU plus 9, the countries of former Yugoslavia mostly) added regulations. In 2010 Ukraine and Moldova joined and therefore needed to implement the treaty rules too. The member states of this treaty, in I believe 2011, decided to implement the rules of not only the second directive but the third gas directive as well. When third energy directive came into effect in 2009, obligations were upgraded, so Moldova and Ukraine are now obliged to have all those requirements I listed. That was the response of the EU. They responded by diversifying their infrastructure in order to reduce dependence on gas from the East and through Ukraine.

The natural response from Ukraine is well known. After the contract between Russia and Ukraine was signed, Ukraine was not happy about the price level. The signing of the contract was done at the moment when the reference period of the previous 9 months which created the timescale to calculate the average value of petroleum product prices during this period which placed the value of P zero in the contractual formula at \$450/mcm. Of course, Ukraine was not happy with this high price and understood that given this high price, relations with Russia, and the two interruptions, they would have to go in a different direc-

tion. Now they are developing shale, the offshore, buying from the West through reverse flows that are now obligatory in the Energy Community Treaty. They would like to develop an LNG plant near Odessa, switch from gas to coal for power generation because they have a lot of coal. They would also like to increase their energy efficiency. That was the reaction on Ukrainian side.

Nicholas: And now what about Russia's reaction and how it relates to the development of South Stream? Can the economics of such a large pipeline going to countries that may not have that kind of gas demand be justified?

Dr. Konoplyanik: Regarding South Stream, I would like to divide two aspects. First, the issue of economic justification of South Stream per se, and second, a discussion about quantitative parameters – will it have a 63 bcm capacity or not? I will get to this later.

But back to Russia's reaction to the gas crisis...Russia was overestimating their balance within this triangle. From my point of view, they began to reassess the risks and costs of gas to Europe after the interruptions. From the Russian side, they could also expect another interruption of flow in the future, so the risk became a material fact. Russia had to assess whether or not it was too risky. Should Russia continue living with the risk of interruption of flow where Russia would be the responsible party in the event of a future interruption because in the supply contract it is the obligation of the supplier to bring gas to the delivery point and if there is interruption of the flow because the transit country is taking some flow out of the pipe the customer will bring to court not the transit state but the supplier, and then Russia would have to invite the Ukrainians to court. So the first victim would be Russia; and they began to reassess this. Taking into account these risks, and I do not know how these risks were evaluated, the economic assessment of continued gas flow

through Ukraine and development of new pipelines that bypass Ukraine showed additional benefits. First of all, in this new system of evaluation when you are not only measuring the technical costs but also the financial costs that include the risks, economic considerations might be different. Thus continued transit through Ukraine will become more costly after these elements of risk. That definitely changed Russia's economic assessment of technical costs of Nord Stream, South Stream, and continued flow through Ukraine. Secondly, if you have the choices of either going through Ukraine or not, then technically it is something like a lever or a pressure that is diminishing the risk of these interruptions of supplies – like an alternative opportunity to reduce or eliminate this sort of interruption through the main source. I see the reasonability for developing the two pipelines, which is based on the new approach to assessing the economics of the new routes, including the risk of interruption if the gas is going through Ukraine and the zero risk of bypassing Ukraine by instead going through international waters directly to the customers.

Russia has the opportunity to create and use these capacities and make the throughput of Ukraine zero... I think that all the talk of maximum numbers is a negotiation tool and it is not necessarily the final decision that all these pipelines will be built with these maximum capacities.

Why two pipelines? Because they are aimed at two different markets. All the supplies from Ukraine were going to Slovakia and Czech Republic and then by one line to the White House to Santa Ekaterina

toward Northern Europe and another line to Baumgarten toward southern Europe. Now, Nord Stream goes to northern Europe and South Stream to southern Europe, specifically Italy, the traditional market for gas going through Ukraine, Slovakia, and then Austria. In this case I see economic justification for two pipelines because they are going to traditional markets of Russian gas. They are clearly bypasses, with the major aim of bypassing Ukraine and providing alternative routes to feed traditional markets.

Now, let's speak about the quantities. I cannot prove today anything except the 55bcm that is already the factual throughput capacity of Nord Stream. I do not think this is being fully utilized yet, that part of the capacity is taken from existing flows going directly to Germany. I do not know the exact figures. Maybe it is because of the crisis and after the crisis it will use the full capacity. So I would not conclude that the 3rd and 4th lines of Nord Stream will go through. I talk about this in the "if" manner because if we combine all the maximum capacities of Nord and South Stream, we will see that Nord Stream: 55 (today) + 55 (future) = 110bcm. And then if we take the maximum capacity for South Stream is 63bcm. I cannot treat these numbers in such a simple way. When you build a pipeline, you are not laying all four pipes simultaneously; you are building them in sections - first, second, third, fourth. The fact that South Stream has started construction does not mean it will finish with 63bcm. If we summarize these maximum capacities (current and proposed) we have 110bcm + 63bcm = 173 bcm which is already equal to the capacity through Ukraine. If this capacity is realized we will have the technical possibility to have zero throughput capacity through Ukraine, which, from my point of view, would be the worst development. In this case, we would lose the Ukrainian market and will have a domino effect – if we do not put gas through Ukraine then Ukraine will definitely do its best to exclude supplies of Russian gas. In years to come, they might have the opportu-

nity to receive alternative flows that will compensate for the flows of Russian gas. It would be a lose-lose situation for both countries.

All these statements about future supplies are nothing more than an attempt to find equilibrium in a politically motivated debate. If we take into consideration that Yulia Tymoshenko is in prison and that there exists a very strong rhetoric between Russia and Ukraine, we are trying to find that equilibrium starting from a very negative point. I would say that all the statements showing the most radical situations can be considered in the following manner: if there's no intention to find an equilibrium, Russia has the opportunity to create and use these capacities and make the throughput of Ukraine zero, which could greatly hurt Ukraine because they heavily rely on transit revenues. I think that all the talk of maximum numbers is a negotiation tool and it is not necessarily the final decision that all these pipelines will be built with these maximum capacities. The fact that the construction of the offshore part of South Stream has started tells me that Russia needs to talk with its European colleagues about how it will be built from the Bulgarian shore to the Italian market within the framework of the Third Energy Package. We have proposed a 'Sweet Dream' project, which is very similar to South Stream, to try to find the procedural opportunities and whether the rules of the Third Energy Package will allow the shipper to reserve capacity for 63 [bcm], 53, 33, 23, or 13 – the amount does not matter. If you would like to book the capacity for new supplies within the rules of the Third Energy Package, then there is the issue of ownership unbundling, which would mean that Gazprom is only as a shipper, not the owner of the pipelines. There is also a rule for social investing. This project explores whether all the rules are there so if and when the first line reaches the Bulgarian coast in a year and a half or two years, it will be impossible to claim there are no rules, which would have the negative effect of prolonging the regulatory development process

and further politicization of this issue.

I can see the economic reasons behind the pipeline but not behind the 63bcm capacity.

All of the regulatory particularities of the EU also create more risk and influence the throughput capacity of the final project. So I see that in this process of negotiation and construction, the question will remain: What will the final capacity be? I am not ready to say today that it will definitely be 63 bcm. Prior to December 7th, it was still a question of whether or not South Stream would be built but now we have passed the point of no return and we are faced with the questions of what the final throughput capacity will be and what the procedures within the EU and Third Energy Package rules will look like. Depending on these procedures and rules, Gazprom may or may not be ready to sign a contract with specific capacities. You can justify any capacity through adequate evaluation of risks because here it is not just pure economics that matters. I can see the economic reasons behind the pipeline but not behind the 63bcm capacity. I will not be willing to discuss who the contractors will be or what are the relations between the pipeline companies with the current political leadership of my country because I do not consider myself a specialist in this issue.

Lauren: You have mentioned that we are moving from a resource based world to a technology based world and this has definitely played a role in the American shale gas revolution. Has this shift meant any direct disadvantage for Gazprom?

Dr. Konoplyanik: I do not think so because this movement from the importance of resources to technology is, from my point of view, a natural shift that is long-term and global and all companies are

reacting to this. That means that we need to take into consideration the competition between these production factors (labor, capital, natural resources). Since today we are definitely moving from a fossil fuel economy that was the reality of the 20th century to an economy where the expansion of non-fossil fuels will take place,

[Gazprom] has been trying to buy stock in new electricity generating companies since the privatization of Russia's electricity sector. It is also trying to increase its presence in the vertical chain, and the next stage after electricity is alternative energies.

Gazprom is trying to place itself as not only a gas producing company, but an energy company with multiple activities. It would like to follow the paths of other international companies that have not monopolized just one area, for example oil companies began in oil but have expanded to alternative energies. It would like to have its presence in all competitive energies so that if there were to be a strong movement from an oil economy to a non-oil economy, it would be on the forefront in these alternative energies as well. I think that Gazprom is definitely slower than others because it has clearly aimed at developing gas. Maybe it will take a longer time for Gazprom but it will also try to think about alternative areas, not just electricity generation, which is the natural transition now. Gazprom is making the move differently than others. It has been trying to buy stock in new electricity generating companies since the privatization of Russia's electricity sector. It is also trying to increase its presence in the vertical chain, and the next stage after electricity is alternative ener-

gies. It would like to use gas in transportation. For example, Gazprom will be presenting a joint project with Volkswagen in Dusseldorf, Germany where they will use compressed gas in cars. This natural shift for all energy companies is occurring because they would like to be stable by not relying on only one energy niche. First Gazprom would like to find out what is possible to do with gas - which most likely means it will move downstream to the petrochemical industry because many of the Eastern Siberian fields contain gas with not only methane but other chemicals like CH₅, CH₆, butane, propane, and others that can be used as feedstock for chemicals. This diversification does not necessarily mean going in the direction of alternative energies like renewables but instead, it may mean development of the more difficult aspects of the gas business. The level of technological complexity in the arctic offshore is higher and technology needs to be more sophisticated. Even to develop traditional energies takes more complex technology now. It is not just a phenomenon of today or of the US shale revolution - it is an example in technology history.

Nicholas: We had Vladimir Milov speak at our university a couple weeks ago and in the answer to a question I asked him about independent gas producers in Russia, he said that the term is a misnomer; there are other companies but they are not necessarily independent. My question is what role do you see Novatek and Rosneft playing in future relations with Gazprom? Will it be more characterized by competition or cooperation?

Dr. Konoplyanik: Generally I think the best form of competition is cooperation, especially when you have capital intensive projects. When you need to develop something and a huge investment needs to be made, it is better not to have competition but cooperation. But I understand that at some points there are the economics that force companies to choose either to compete or to cooperate. Some companies cannot cooperate with Gazprom because

they are losing opportunities so they are trying to find out areas in which they can compete. One of those areas would be the possibility of gas export. Independents will likely not receive the opportunity to become individual exporters of this gas, at least within this electoral cycle, and I am not sure about next electoral cycle - it depends on the new leaders.

...there will still be an export monopoly in pipeline gas and the solution for independents could lie in allowing some export if the companies also take some investment responsibility in developing a better transportation system.

A lot of things depend on the president, for instance, if Vladimir Milov becomes president, I understand one of his first decrees would be to demonopolize Gazprom to provide not only third party access to the existing pipelines (it is already there, though not too many understand it) but to give the opportunity for the independents to export pipeline gas to Europe. I think there will still be an export monopoly in pipeline gas and the solution for independents could lie in allowing some export if the companies also take some investment responsibility in developing a better transportation system. It is now the responsibility of Gazprom to develop this system but I can see a situation in which if independents contribute to the transportation system, they will receive some export rights equal to what they contribute. Here there would be forced cooperation.

If we move to LNG, despite the fact that today there is no opportunity for companies to export gas independently, I think that very soon there will be liberalization of export of LNG and I think that

the independent producers will receive an opportunity to export LNG based on the following economic rationale: The export monopoly was established to exclude competition in Russian gas on the EU market in order to maximize export earnings for the state. With LNG, you are not linked only to the EU market; you can go to the EU market, or the Asian-Pacific, or if the opportunity arises in the US – you can go globally.

Moreover, there is now an overabundance of LNG import capacity in Europe; the utilization rate is around 40%. The major exports will go to Asia Pacific where Gazprom's pipelined gas does not reach. There is more flexibility in LNG supplies and therefore no direct competition between the independent LNG producers and Gazprom pipeline gas. That could mean that Novatek at Yamal LNG, Rosneft at Sakhalin, and Gazprom at Vladivostok LNG all possess markets and niches. I think we are moving today toward liberalization of LNG export in Russia, which will give the opportunity for coexistence and cooperation-forced cooperation between independents and Gazprom in pipeline gas and competition in LNG. It doesn't mean that they will be competing in the existing market but instead in the growing markets. Both will have the opportunity to find their niches.

Nicholas: There have been several calls for Gazprom to restructure and one suggestion has been privatization. Do you think that if Gazprom were to become more privatized, would efficiency be increased?

Dr. Konoplyanik: I prefer not to discuss "if" stories because I do not even see this situation feasible in the current electoral cycle. The issue is not the privatization of Gazprom per se, because Gazprom is considered as a company with different branches. The key asset of Gazprom is the gas transportation system, which was developed as a single entity and is managed from the center by a

single company.

It is not the privatization that is the key issue here, but the fair regulation of all these rules regarding third party access to the domestic transport pipelines.

Today if you are speaking about privatization, it means that you are speaking about privatization in the competitive areas. If the idea is to split Gazprom, this means that there is the company dealing with operation of the gas transportation system and then companies like Gazprom production and others like Rosneft and Novatek that will bring gas to the transportation system, where it will then go to the downstream markets. A number of economically justified arguments say that without privatization of Gazprom, without separation of transportation and production, it is possible to have efficiency if adequate third party access to the transportation system is provided for both the upstream part of the company and the independents. It is not the privatization that is the key issue here, but the fair regulation of all these rules regarding third party access to the domestic transport pipelines. I see the opportunity for the state to provide fair third party access to the pipelines even when Gazprom is not privatized. The reality is that privatization will not take place in the next 6 years, so it is better to focus on these issues. Second point is efficiency. I do not see that efficiency is an issue of Gazprom's privatization or restructuring, it is the issue of decreasing costs, issue of management, and it does not matter whether you are separated or not, it matters that Gazprom today is not your typical commercial company - Gazprom today is a state company that has a lot of other non-commercial obligations, it is just a donor to the state. I am not trying to pro-

tect Gazprom but I do want to say that it is not always the fault of Gazprom because it sometimes needs to implement something non-commercial, for instance Sochi Olympic Games, to finance the development of the football stadium here in St. Petersburg for Zenit. I do not understand why Gazprom is supporting Schalke club in Germany – I do not understand, for instance, why Gazprom is supporting the NTV television channel. I do understand efficiency, which for me means improving managerial efficiency and finding your core business and limiting yourself to that. But if the major stakeholder, which is the state, says you need to invest in television (which is not understandable for me), then what can you do? So it is not so much the guilt of Gazprom per se but of the fact that it is a state company. Usually in countries where there are state companies, these companies serve a dual purpose, acting as a commercial entity and as a donor to budget. So that means that their commercial efficiency is always lower than the efficiency of just commercial companies. This is the reality in which Gazprom needs to act. ♦

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