

FEBRUARY 2020

The Russia-Ukraine gas transit deal: opening a new chapter

1. Introduction

On 30 December 2019, Gazprom and Naftogaz Ukrainy signed agreements covering the transit of Russian gas through Ukraine for the period 2020-24. It provides for 65 bcm to be transited in 2020, and 40 bcm/year in 2021–24 – a total of 225 bcm, with provisions for additional volumes to be shipped if required. The total cost to Gazprom will be about \$7.2 billion. While Naftogaz is the shipper of the gas, the Ukrainian transport system is now operated by a new, separate company, Gas Transmission System Operator of Ukraine (GTSOU), which has been unbundled from Naftogaz in line with European market principles. GTSOU has signed interconnection agreements with Gazprom in the east, and with the transmission system operators (TSOs) of Poland, Slovakia, Hungary, Moldova, and Romania in the west.

The transit deal, which defied predictions that negotiations would not be completed in time, is a success for both Russia and Ukraine not only at a corporate level, but also at a political level. Indeed, it was above all a shift in political relationships that allowed it to be done. How agreement was reached is discussed in the first section of this OIES Insight; we then look at the terms of the deal, discuss the likely level of transit flows through Ukraine during the period of the deal, and then draw conclusions.

In *Implications of the Russia-Ukraine Gas Transit Deal for Alternative Pipeline Routes and the Ukrainian and European markets*, an Insight paper that accompanies this one and which will be published shortly with our colleagues Katja Yafimava and Vitaly Yermakov, we review the situation with non-Ukrainian transit routes to Europe, in the light of the deal, comment on what it changes for the gas sector in Ukraine, and consider some short-term impacts on the European gas market.¹

2. How the deal was done

The way to the 30 December agreements was paved at the political level. President Putin of Russia and President Zelensky of Ukraine negotiated directly with each other about gas transit arrangements, first by telephone on 25 November and then at the “Normandy Four format” negotiations in Paris on 9 December. This led to concessions being made on both sides, again at a political level, and a framework agreement being signed between political leaders on 20 December.

¹ Simon Pirani, Jack Sharples, Katja Yafimava and Vitaly Yermakov, *Implications of the Russia-Ukraine Gas Transit Deal for Alternative Pipeline Routes and the Ukrainian and European markets* (OIES Insight, forthcoming)

Before and during these political negotiations, the chances of an agreement being made on transit before the end of 2019 seemed to almost all observers to be very low. After ministerial-level talks on gas transit on 28 October, both sides had repeated their unrealistic demands to each other: Putin and Gazprom managers had proposed abandoning all the arbitration and legal cases brought by Naftogaz against Gazprom, and EU and Ukrainian representatives had repeated their calls for a ten-year contract with large volumes.²

On 25 November, after Putin and Zelensky spoke by telephone, there were some small signs of compromise. Naftogaz managers indicated for the first time that the company might be willing to sign a short-term, one-year contract for 2020, as well as suggesting that the stand-off over the arbitration cases could be brought to an end by Gazprom making payment with volumes of gas.³ On 28 November, negotiations on technical aspects of transit resumed in Vienna. Executives of the newly incorporated GTSOU and of Gazprom discussed draft interconnection and transportation agreements.⁴ The next step forward came, again, at the political level. On 9 December, Putin and Zelensky met in Paris, together with German chancellor Angela Merkel and French president Emmanuel Macron, in the so-called “Normandy Four” format to discuss the military conflict in eastern Ukraine. The progress on conflict resolution was modest – a fresh ceasefire (the 21st since 2014) was agreed, and a further prisoner exchange between Ukraine and Russia – but the gas transit issue was reviewed, and, in Zelensky’s words, progress towards agreement “unblocked”, although the contractual format, volumes and prices had still to be agreed.⁵

Nevertheless, it appears that after the Paris talks both Russia and Ukraine still did not expect to reach an agreement by 31 December. Naftogaz continued its preparations to operate the transportation system in reverse from 1 January, and on 18 December Andriy Kobolev, its CEO, told a press briefing that the chances of a deal being made in time were “very close to zero” and falling. Gazprom, for its part, booked capacity for early 2020 between Bulgaria and Romania, presumably with a view to supplying Romanian customers via Turkey and Bulgaria.⁶

The political breakthrough came on 19–20 December. On 19 December, while talks at corporate level resumed in Berlin, Putin indicated for the first time, at his annual televised press conference, that Russia would abandon its demand that the arbitration and legal cases be set aside. While repeating that he considered the Stockholm ruling against Gazprom “political rather than legal in nature”, he added: “Fair enough. There is a ruling and we’ll be guided by it.” On the same day, the corporate negotiating teams travelled to Minsk to meet Russian Deputy Prime Minister Aleksandr Novak and three senior Ukrainian political representatives to re-open talks at the political level.⁷

The following day, the political framework agreement⁸ was signed by Kozak, Maroš Šefčovič, European Commission Vice President and, for Ukraine, Andriy Yermak, Zelensky’s adviser, Dmytro Kuleba, the Deputy Prime Minister, and Oleksiy Orzhel, Energy Minister. This provided for:

² On the background, see Tatiana Mitrova, Simon Pirani and Jack Sharples, *Russia-Ukraine gas transit talks: risks for all sides* (OIES Insight, November 2019)

³ ‘Putin and Zelensky talk transit’, *Argus FSU Energy*, 28 November 2019

⁴ ‘Kiev, Moscow dig in on transit deal’, *Argus FSU Energy*, 5 December 2019

⁵ ‘Zelensky stands firm in first encounter with Putin’, *Financial Times*, 10 December 2019; ‘Vstrecha Putina i Zelenskogo ne privela k proryvu’, *Vedomosti*, 10 December 2019. On the chances of a deal having improved at this point, see: ‘Ceasefire: Russia’s Gazprom, Ukraine’s Naftogaz, EU’s gas link team’, *New Europe*, 13 December 2019, <https://www.neweurope.eu/article/ceasefire-russias-gazprom-ukraines-naftogaz-eus-gas-link-team/>

⁶ ‘Chances of deal trending towards zero’, *Natural Gas World*, 18 December 2019; ‘CEO Operator GTS Ukrainy Makogon: My gotovym tekhniko-ekonomicheskoe obosnovanie’, *Interfax-Ukraina*, 14 January 2020, <https://interfax.com.ua/news/interview/635485.html>

⁷ ‘Putin: there is an arbitration ruling’, *Interfax-Ukraina*, 19 December 2019, ‘CEO Operator GTS Ukrainy’, *Interfax-Ukraina*, op. cit.

⁸ ‘Protokol vstrechi predstavitelei Evropeiskogo soiuza, Ukrainy i RF, a takzhe kompanii etikh stran (GTSOU, Naftogaz Ukrainy, Gazprom)’, *Government of Ukraine*, 19-20 December 2019. Published on the Ukrainian government web site at: <https://www.kmu.gov.ua/storage/app/sites/1/17-prezentation-2019/12.2019/protokol.pdf>

- Payment by Gazprom of \$2.9 billion (\$2.56 billion award plus interest) arising from the Stockholm tribunal decisions against it; withdrawal of all other arbitration and legal cases between Gazprom and Naftogaz, and related claims, arising from disputes on the 2009 gas transit and sales contracts; withdrawal of a Gazprom arbitration case against the state of Ukraine; and cessation of the Ukrainian anti-monopoly agency's case against Gazprom;
- Naftogaz to sign an agreement to transit gas with GTSOU and Gazprom to sign interconnection agreements with GTSOU;
- Naftogaz to acquire 65 bcm of capacity from GTSOU in the Ukrainian transportation network in 2020, and 40 bcm/year in 2021–24, to provide to Gazprom, on condition that the Ukrainian National Energy and Utilities Regulatory Commission (UNEURC) set “a competitive tariff” comparable to those in western and central Europe.

In addition to the commitments by Russia and Ukraine, the European Commission representatives “guaranteed and confirmed in writing” the certification of GTSOU. The agreement said that, once its provisions had been fulfilled, the parties would “consider the possibility” of direct Russian gas sales to Ukraine, at prices linked to the NCG hub. The agreement expressed the two sides’ intention to cooperate further on transit in 2025–34. The Ukrainian side specified that the agreement to withdraw legal cases did not affect claims against the Russian Federation related to assets expropriated in Crimea.

The agreement was significant not only for the gas market but for the broader relationship between Russia and Ukraine. It was the first major agreement on trade between the two countries since the outbreak of military conflict in eastern Ukraine in early 2014 – a period during which trade flows between the two countries fell sharply, and other forms of economic cooperation dried up almost completely. It also marked the beginning of a thaw in relations between Russia and the western European powers, who have distanced themselves from the US sanctions on the Nord Stream 2 project.

The agreement still left considerable work to be done by Naftogaz, GTSOU and Gazprom on at least two outstanding issues. The first was that Gazprom managers sought protection from potential future risks associated with changes in Ukrainian regulation. Their initial suggestion to address this was that a European energy company take the role of shipper; one was invited, but its own board could not get comfortable with the regulatory environment in the short time required. In response, Naftogaz proposed to take that role itself, i.e. to act as agent, based in Ukraine, supplying the transit services to Gazprom. Gazprom then made further proposed changes to the transport and interconnection agreements, which were accepted by GTSOU.

The second issue was that, under the previous contractual arrangements, Gazprom had at the western Ukrainian border undertaken some of the functions normally exercised by a TSO (measuring flows at the interconnection points, balancing, and technical liaison with Eustream, the Slovakian TSO). For European regulatory principles to be adhered to, these arrangements now had to be superseded by interconnection agreements between GTSOU and the European TSOs. Such agreements had been signed with the Polish and Hungarian TSOs by mid-December, and with the Moldovan TSO on 27 December. The agreement with Eustream, the Slovakian TSO, proved the most difficult to negotiate, and was signed only on 31 December, after the package of deals between Russian and Ukrainian companies had been signed. In the case of Romania, one agreement has been signed but others were still being negotiated in late January 2020.

3. How the deal works

On 30 December Gazprom and Naftogaz signed an agreement on the organisation of transit, and a settlement agreement covering the past issues set out in the 20 December political agreement. Interconnection agreements were signed between GTSOU and Gazprom. On 1 January, Naftogaz

announced that the unbundling of GTSOU had been completed; presumably, agreements have now been signed between that entity and Naftogaz on the provision of transit capacity.⁹

President Zelensky and Naftogaz executives have stated that Naftogaz, as the agent, will receive a total of \$7.2 billion for the transit services provided to Gazprom – a level estimated at about 2 per cent above the level in the previous (2009-2019) transit contract.¹⁰ Most of this sum will be paid to GTSOU for the provision of transit capacity. Naftogaz and GTSOU executives have stated that all Russian gas for transit to Europe will henceforth go via the Sudzha and Sokhranovka entry points; the former for the bulk of flows to the European market, the latter for flows to Moldova and Romania. Other entry points are to be mothballed to reduce costs. Presumably, flows will exit Ukraine via Poland, Slovakia, Hungary, Moldova, and Romania. The annual capacities are to be calculated on a daily basis, for 178 mcm each day in 2020 and 110 mcm per day in the period 2021-24, and no monthly variation is provided for in the contracts. Gas will henceforth be measured by energy units (MWh), in line with European practice, instead of the units of volume (thousand cubic metres, or mcm) used previously. During negotiations on the transportation agreement, provisions were agreed covering the quality of gas at exit points from Ukraine. The arbitration clauses in the contract provide for disputes to be settled at the International Chamber of Commerce court in Zurich, Switzerland, thereby departing from practice in previous Gazprom-Naftogaz contracts that were subject to arbitration in Stockholm.¹¹

The payment scheme for transporting volumes in excess of the annual capacities has not been made public by the negotiating parties. It has been reported that, for such volumes, coefficients will be applied to the fee charged by Naftogaz to Gazprom as follows: to book on a quarterly basis, 1.1 x the transit fee; to book on a monthly basis, 1.2 x; and to book on a daily basis, 1.45 x. Ukrainian and European officials have suggested that, while Gazprom has entered into the agency agreement with Naftogaz to cover the annual volumes, it could book capacity directly with GTSOU for additional volumes; in this case, capacity would be presumably be offered, and paid for by Gazprom, under Ukraine's new regulatory regime.¹²

The relevant tariffs set by UNEURC are: \$16.01/mcm (excluding VAT) for entry capacity at Sudzha and Sokhranovka and \$9.68/mcm (excluding VAT) for exit at Uzhgorod/Velké Kapušany. There are slight variations for exit via for example, Beregovo which would be \$9.26/mcm (excluding VAT) and Oleksiyivska (\$9.71/mcm (excluding VAT)).¹³ The cost to Naftogaz of transit capacity will be around \$5.7 billion (excluding VAT)¹⁴ and VAT payments will be made at 20 per cent, i.e. around \$1.14 billion. This suggests that Naftogaz will earn a margin of \$350-400 million for providing shipping services over the five-year term of the contract. Naftogaz chief business officer Yuri Vitrenko has said that, while the margin will not be publicly reported, it will be evident from the company's 2020 accounts.¹⁵

These agreements have been made together with a shift to a new regulatory regime designed to align with EU rules. Naftogaz and GTSOU executives have confirmed that other companies can book capacity, just as Naftogaz has. They say that they have had discussions with two European companies

⁹ 'Package of documents signed', *Gazprom press release*, 30 December 2019; 'Naftogaz, GTSOU and Gazprom signed a set of agreements', *Naftogaz Ukrainy press release*, 31 December 2019

¹⁰ President Zelensky gave the figure of "more than \$7 billion" on 30 December (see 'Zelensky says 10-year extension possible', *Interfax-Ukraine*, 31 December 2019; Naftogaz Ukrainy executive director Yuri Vitrenko gave the figure of \$7.2 billion (see for example 'The fee for transit of Russian gas classified', *Ukrainian News 24*, 2 January 2020). It was announced officially by GTSOU as \$7.2 billion (see GTSOU press release 10 January 2020 at <https://tsoua.com/en/news/oqtsu-evaluated-the-impact-of-the-new-transit-on-the-economy-of-ukraine/>).

¹¹ 'CEO Operator GTS Ukrainy Makogon: My gotovym tekhniko-ekonomicheskoe obosnovanie', *Interfax-Ukraina*, op. cit.; 'Naftogaz povysil tarif na tranzit', *RBK-Ukraina*, 31 January 2020

¹² 'Naftogaz povysil tarif', *RBK*, op. cit.; 'Ukraine as a cornerstone', op. cit.

¹³ The rates are set out in the Appendices to the UNEURC Decree no. 3013 of 24 December 2019, here: <http://www.nerc.gov.ua/index.php?id=48031>

¹⁴ Typically, the cost to Naftogaz of transit capacity will be about \$25-\$26/mcm, depending on entry and exit points, suggesting tariffs totalling \$5.62-5.85 billion for 225 bcm.

¹⁵ 'Naftogaz ne mozhet ozvuchit' razmer marzhi po kontraktu', *Interfaks-Ukraina*, 9 January 2020

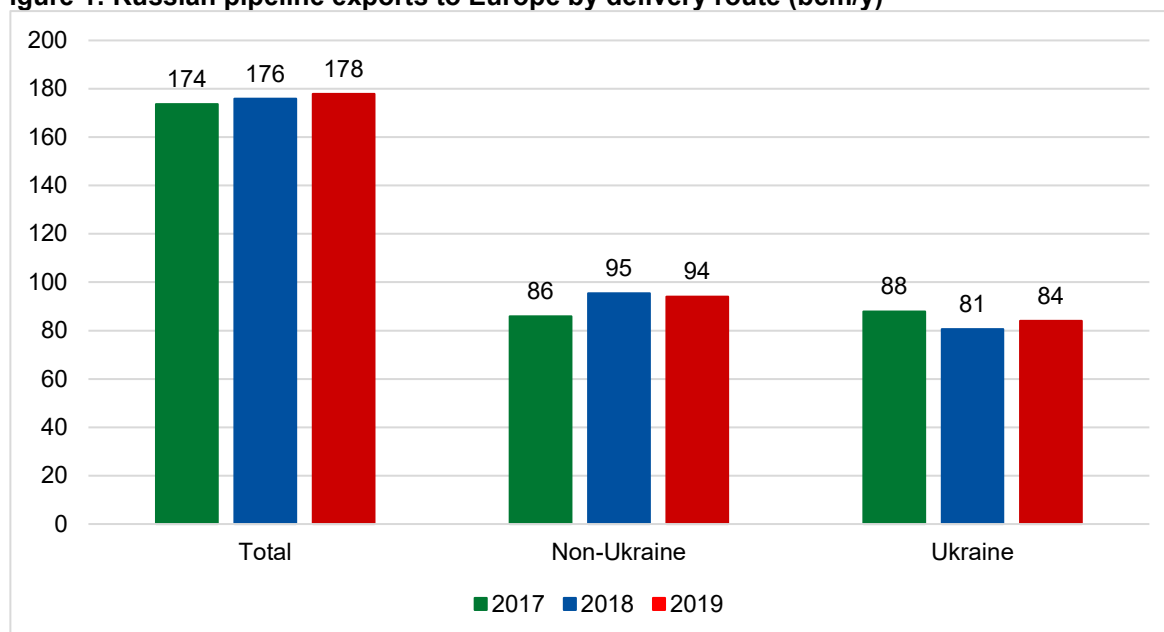
about transiting gas across Ukraine.¹⁶ Such transit arrangements will presumably only apply if Russian gas becomes available for sale on Ukraine's eastern border. (For more on this, see Pirani et al., *Implications of the Russia-Ukraine Gas Transit Deal*.)

4. Agreed transit volumes and Gazprom's likely requirements

The Ukrainian transit capacity available to Gazprom under the agreement is likely to be sufficient in 2020, and also to be sufficient once Nord Stream 2 and the onshore pipelines connecting Nord Stream 2 and Turkish Stream with European destinations are complete (for more details see Pirani et al., *Implications of the Russia-Ukraine Gas Transit Deal*). But, at least in 2021, if these additional pipelines are still not ready for use, Gazprom may need to purchase additional capacity, probably priced at the coefficients mentioned above. Given the flat fee that Gazprom has agreed to pay for a set capacity (65 bcm in 2020 and 40 bcm/year in 2021–24), lower physical flows will, in effect, lead to a higher per-unit transit tariff. On the contrary, if the agreed volumes are too low, Gazprom will be obliged to negotiate the purchase of additional capacity. Our assessment is as follows:

On an annual basis, Russian pipeline exports to continental Europe (that is, Europe excluding Finland and the Baltic states, and excluding flows to the Turkish market via Blue Stream and Turkish Stream) have been relatively stable in the past three years, as illustrated in Figure 1. Transit via non-Ukrainian routes refers to Nord Stream, the Yamal-Europe pipeline (via Belarus to the Polish border at Kondratki), and via the Belarusian pipeline system to the Polish border at Wysokoje. From 1 January 2020, this also includes flows via Turkey to Bulgaria, at Strandzha-2 on the Turkey-Bulgaria border. Transit via Ukraine includes flows that reach the European market at Drozdovichi (Polish border), Uzhgorod/Velké Kapušany (Slovak border), Beregovo (Hungarian border), and Isaccea (Romanian border). For Gazprom to restrict its annual transit via Ukraine to the volumes agreed, that transit would have to decline substantially, by approximately 20 bcm in 2020 and by more than 40 bcm in 2021–24.

Figure 1: Russian pipeline exports to Europe by delivery route (bcm/y)



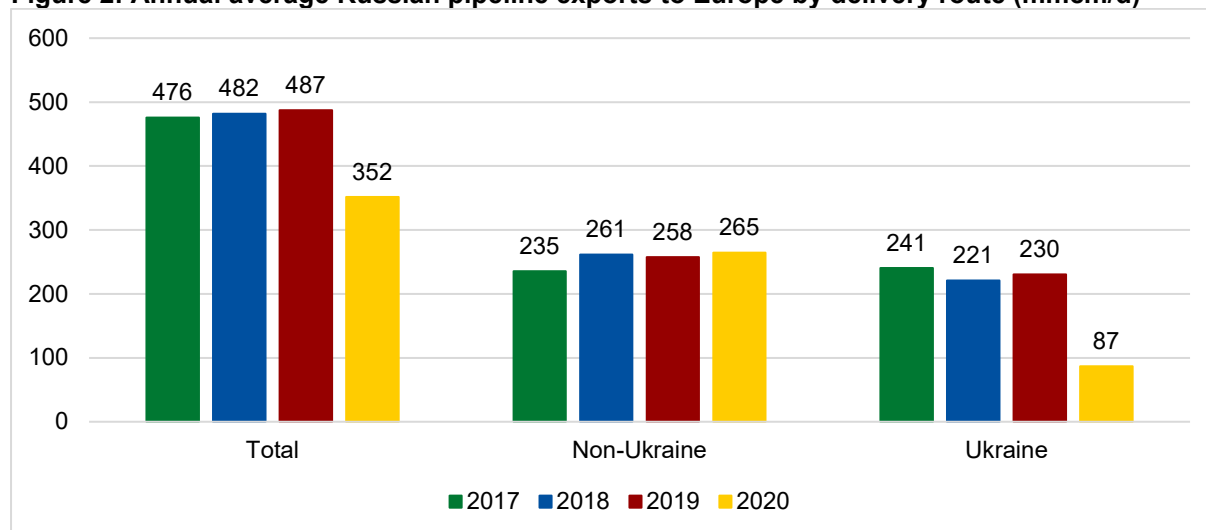
Source: Data from ENTSOG Transparency Platform, graph by the author

A key feature of the Russia-Ukraine transit agreement is that Gazprom has paid for a flat daily transit capacity, with no variation. Those daily capacities will be 178 mmcm/d in 2020 and approximately 110 mmcm/d in 2021–2024. Therefore, it is worth comparing these transit levels with Gazprom's daily export

¹⁶ See for example: 'Rubilis' s Gazpromom za kashdyj punkt' [interview with Y. Vitrenko], *Liga.biznes*, op. cit

flows via Ukrainian and non-Ukrainian routes. Figure 2 illustrates the annual average flows in million cubic metres per day (mmcm/d). The annual average for 2020 is derived from flows in the period from 1 January to 23 February.

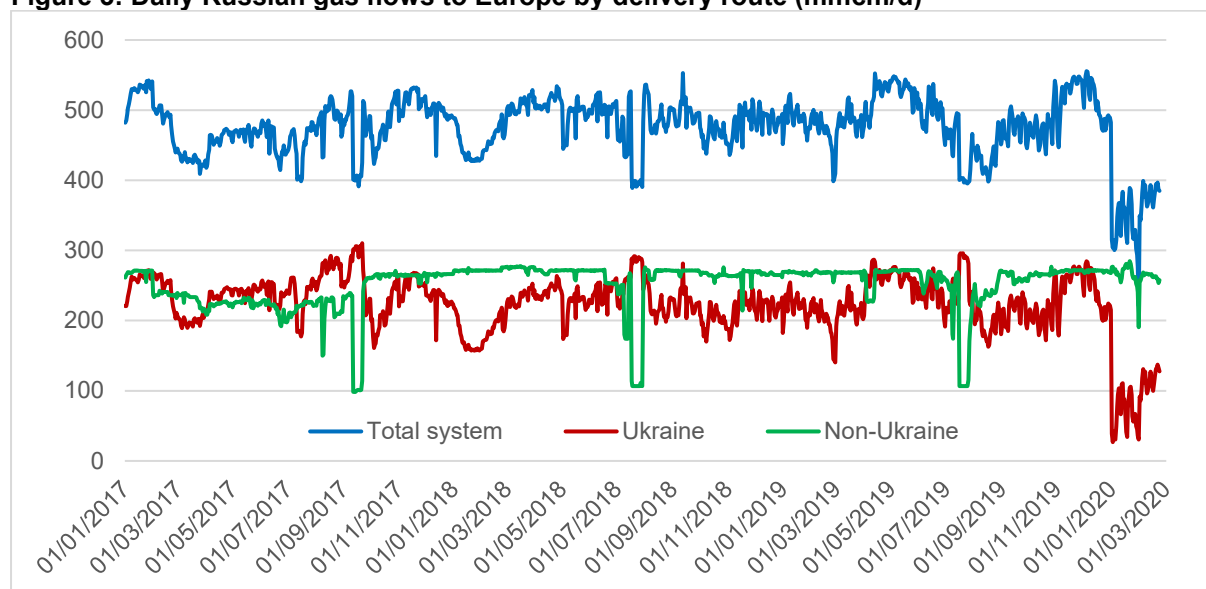
Figure 2: Annual average Russian pipeline exports to Europe by delivery route (mmcm/d)



Source: Data from ENTSOG Transparency Platform, graph by the author. Data up to 23rd Feb 2020.

Around these annual averages, the actual daily flows experience substantial fluctuation. As Figure 3 illustrates, daily total Russian exports to continental Europe in the period between 1 January 2017 and 31 December fluctuated between 389 and 556 mmcm/d, with an average of 482 mmcm/d. Within that, flows via Ukraine fluctuated between 141 and 310 mmcm/d (with an average of 231 mmcm/d), while flows via non-Ukrainian routes fluctuated between 98 and 285 mmcm/d (with an average of 251 mmcm/d). Here it is worth noting that the low points for non-Ukrainian transit occur during the 10-day periods of annual maintenance on Nord Stream, with higher Ukrainian transit flows occurring at the same time. Aside from those maintenance periods, non-Ukrainian flows have been largely stable.

Figure 3: Daily Russian gas flows to Europe by delivery route (mmcm/d)



Source: Data from ENTSOG Transparency Platform, graph by the author. Data to 23rd Feb 2020.

In December 2019 – the last month in which the previous Russia-Ukraine transit agreement was in place and the last month before the launch of the Turkish Stream pipeline – the total daily average flow

was 509 mmcm/d. Within that, the daily average flow via Ukraine was 239 mmcm/d and the flow via non-Ukrainian routes was 271 mmcm/d. In January 2020, daily average flows were substantially lower. Total flows averaged 332 mmcm/d, within which non-Ukrainian flows averaged 266 mmcm/d. The biggest decline was seen in Ukrainian flows, which fell to an average of 67 mmcm/d. Therefore, the decline in Ukrainian flows was far greater than the decline in non-Ukrainian flows. However, it is worth noting that Ukrainian transit flows recovered to a certain extent in February. In the period 1 February to 23 February, total Russian flows averaged 378 mmcm/d, with non-Ukrainian flows falling slightly to 263 mmcm/d and Ukrainian transit rising to 115 mmcm/d.

To estimate Gazprom's likely transit requirement in 2020, several key points must be addressed. Firstly, even if European demand for Gazprom's pipeline gas in 2020 is the same as in 2019, total physical export flows would likely be slightly lower, given that Gazprom placed extra volumes into European storage in 2019, as a hedge against any potential disruption in transit via Ukraine in January 2020. Therefore, in 2020, a higher proportion than usual of Gazprom's European sales are likely to be of gas withdrawn from storage. In such a situation, Gazprom is likely to reduce transit via Ukraine before reducing flows via other routes. This effect will be particularly acute at Beregovo on the Ukraine-Hungary border, given that Gazprom placed especially large volumes into storage for the Hungarian market.

Secondly, the launch of the Turkish Stream pipeline in January 2020 has already diverted transit volumes away from Ukraine. Previously, Gazprom delivered gas to Turkey via Ukraine, Romania, and Bulgaria, along the Trans-Balkan Pipeline. The volumes destined for Turkey are now being delivered via Turkish Stream. Moreover, the launch of a new pipeline connection on the Turkey-Bulgaria border (Strandzha-2) means that volumes previously delivered to Bulgaria (as well as to Greece and North Macedonia) via the Trans-Balkan Pipeline are also now being delivered via Turkish Stream. Therefore, only a residual volume of exports to Romania are still made along the Trans-Balkan Pipeline. This effect is quantified by the decline in flows along the Trans-Balkan Pipeline. At Isaccea on the Ukraine-Romania border, monthly average flows fell from 24 mmcm/d in December 2019 to 5 mmcm/d in January 2020. Physical flows from Romania to Bulgaria (at Negru Voda) fell from an average of 25 mmcm/d in December 2019 to zero on 1 January 2020. Physical flows from Bulgaria to Turkey (at Malkoclar) fell from an average of 13 mmcm/d in December 2019 to zero from 8 January, the launch date of Turkish Stream. Conversely, flows from Turkey to Bulgaria jumped from zero in December 2019 to an average of 16 mmcm/d in January 2020.

Therefore, the volume of Ukrainian transit redirected to Turkish Stream is that destined for Bulgaria, Greece and North Macedonia, and Turkey, previously delivered via Negru Voda on the Romania-Bulgaria border. That volume totalled 9.2 bcm in 2019 (down from 17.1 bcm in 2018 and 19.2 bcm in 2017), at a daily average of 25 mmcm/d in 2019 (down from 47 mmcm/d and 53 mmcm/d in 2018 and 2017, respectively).

Given that daily gas transit via Ukraine averaged 230 mmcm/d in 2019, and the volumes previously delivered to Bulgaria and Turkey averaged 25 mmcm/d in that year, if all other factors remain unchanged, Russian gas transit via Ukraine could fall to an annual average of 205 mmcm/d, based on this factor alone. However, the effect of Gazprom holding large storage stocks in Hungary and elsewhere in Europe means that physical deliveries via Ukraine are likely to fall further, bringing Ukrainian transit down towards the level of 178 mmcm/d (in 2020) and 110 mmcm/d (in 2021–24) envisaged by the Russia-Ukraine transit agreement reached in December 2019.

Two further developments in the next couple of years are relevant. Firstly, the pipelines connecting Turkish Stream with Hungary, via Bulgaria and Serbia, are likely to be complete by the end of 2021. Once that construction work is complete, Gazprom's deliveries to Hungary and Serbia via Ukraine will be re-routed. Given that Serbia receives its Russian gas via Hungary, the volume of Ukrainian transit that will be lost is that recorded on the Ukraine-Hungary border, at Beregovo. In 2019, flows from Ukraine to Hungary at Beregovo totalled 14.8 bcm, at an average of 40.5 mmcm/d. This was an increase from 11.5 bcm (31.4 mmcm/d) recorded in both 2017 and 2018. The higher figure for 2019 is accounted for by Gazprom's efforts to place additional gas in storage in Hungary as a hedge ahead of January

2020. When the 2019 volumes delivered to Turkey, Bulgaria, Serbia, and Hungary are all re-directed, Ukrainian transit would decline by 24 bcm (65.5 mmcm/d), from 84 bcm (230 mmcm/d) to 60 bcm (164.5 mmcm/d), if European demand for Russian pipeline gas remained at 2019 levels.

The second further development to be expected is the completion of the 55 bcm/year Nord Stream 2 pipeline. If that pipeline is launched, and used at 97-98 per cent of its annual capacity (as Nord Stream was in 2018 and 2019), Russian gas transit via Ukraine could be reduced to a residual level of around 5 bcm per year (14 mmcm/d), from 2022 onwards. If Gazprom's use of Nord Stream 2 is reduced, due to the amendments to the 3rd Gas Directive, Gazprom's need for transit via Ukraine will accordingly be higher. In a similar vein, if European demand for Russian pipeline gas rises in the next few years, then transit via Ukraine will also rise above the residual level. The transit volumes agreed up to the end of 2024 will give Gazprom some 'headroom' in this regard. It could even allow Gazprom to cope with Nord Stream 2 and/or Turkish Stream being used below full capacity. However, much will depend on the outcome of negotiations between Gazprom and PGNiG on an extension of the transit contract which expires in May 2020. Those negotiations will determine whether it is more profitable to continue to use the Yamal-Europe system or to book more capacity in the Ukrainian system.

In conclusion, if European demand for Russian pipeline gas remains at the 2019 level between now and 2024, then the Ukrainian transit capacity booked by Gazprom is likely to be sufficient in 2020 (65 bcm at 178 mmcm/d). It is also likely to be sufficient from 2022 onwards, once Nord Stream 2 and the onward sections of Turkish Stream are launched (40 bcm per year at 110 mmcm/d). However, given that Nord Stream 2 and the onward sections of Turkish Stream are unlikely to be fully operational before the end of 2021, it appears probable that Gazprom's need for transit via Ukraine will be at a level similar to 2020. This would mean that the agreed transit volume for 2021 (40 bcm per year at 110 mmcm/d) would be insufficient, and Gazprom would be obliged to pay for additional transit volumes.

5. Conclusions

The Russia-Ukraine agreement on gas transit was made possible, against most observers' expectations, thanks to a shift in political relationships. As a result of direct negotiations between Russia and Ukraine at presidential level, and diplomatic activity by the European Commission, France, and Germany, significant compromises were made on both sides leading to the first significant Russia-Ukraine agreement on any economic issue since the outbreak of military conflict in eastern Ukraine in 2014. Russia agreed to de-link negotiations on the contract from the Stockholm arbitration proceedings arising from previous transit disputes; Ukraine and the EC dropped their demand for a large-volume, long-term contract.

The deal itself, and its consequences in terms of flows of Russian gas to Europe, have been analysed in this Insight. A companion Insight to this one to be published next week, entitled *Implications of the Russia-Ukraine Gas Transit Deal for Alternative Pipeline Routes and the Ukrainian and European markets*,¹⁷ examines the deal's impact: on the likely evolution of Russian gas pipeline routes to Europe – and specifically, Nord Stream 2, TurkStream and the EuRoPol route through Poland; on the Ukrainian gas market; and on prices in the European gas market in the short term.

The deal arrived at – for the transit of 65 bcm in 2020, and 40 bcm/year in 2021-24, with Naftogaz providing transit services to Gazprom and booking capacity under Ukraine's EU-compliant market rules – should provide a stable basis for transit for its duration. If European demand for Russian pipeline gas remains at the 2019 level, the Ukrainian transit capacity booked by Gazprom is likely to be sufficient in 2020. It is also likely to be sufficient from 2022 onwards, once Nord Stream 2 and the onward sections of Turkish Stream are launched. But, given that Nord Stream 2 and the onward sections of Turkish Stream are unlikely to be fully operational before the end of 2021, Gazprom's need for transit via

¹⁷ Simon Pirani, Jack Sharples, Katja Yafimava and Vitaly Yermakov, *Implications of the Russia-Ukraine Gas Transit Deal for Alternative Pipeline Routes and the Ukrainian and European markets* (OIES, forthcoming)

Ukraine in 2021 may well be at a level similar to 2020. In this case Gazprom may need to pay for considerable additional transit capacity in 2021.

The deal and the unbundling of Naftogaz's transportation assets into GTSOU also pave the way for continued market reform in Ukraine. In the short term, virtual reverse flow arrangements can now supercede the physical reverse flow that has delivered almost all Ukraine's gas imports since 2015. The unbundling should also accelerate the authorities' efforts to end cross-subsidisation and chains of debt, end price regulation, and develop a gas exchange. Given that transit is very unlikely ever to return to the high levels of past decades, the partial decommissioning of the transport network can also now be planned for.

For Gazprom, the agreement gives it time to work with its partners to complete Nord Stream 2, TurkStream, and the onshore continuation pipelines, notwithstanding the late and ultimately ineffective imposition of US sanctions. Although Gazprom may bear some additional costs for transit via Ukraine in 2021, its transit diversification strategy should be implemented completely very soon thereafter. A key question is how this will impact negotiations with Poland on transit after the current arrangements expire in the middle of 2020.

Finally, for the European market, in which considerable volumes of gas have been stored in preparation for a possible supply interruption in January, the conclusion of the deal has resulted in further downward pressure on prices that will affect the market throughout this year. This could be seen as a price to be paid for the considerable enhancement to Europe's security of supply afforded by the conclusion of the deal and the completion of the transit diversification projects.

Acknowledgments

The authors gratefully acknowledge the help of their colleagues Mike Fulwood, James Henderson, Tatiana Mitrova, Jonathan Stern, Katja Yafimava and Vitaly Yermakov. The views expressed, and any mistakes, are ours alone.