

At any price: Russia is embarking on the construction of South Stream

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Gazprom is determined to continue its efforts to build the South Stream gas pipeline regardless of the slump on the European gas market and the fact that there is sufficient capacity already in the existing transport infrastructure. The official inauguration of the maritime section of South Stream was held on 7 December this year, but the construction itself will commence in 2014. The agreements concluded so far, both intergovernmental and between corporations, are necessary for the launch of the construction of the new pipeline, but still do not guarantee that the project will be completed on time. First of all, some legal problems have yet to be resolved, such as the evaluation of the compliance of the planned actions with the 'third energy package' or the fact that ecological surveys required under European law need to be carried out. Secondly, given the present situation on the European gas market and medium-term forecasts, the high cost of implementation of this project and the maintenance expenses of existing pipelines – which are not being used to full capacity – the new project seems to be unfeasible. However, Gazprom's determination in its efforts to build the pipeline proves that Russia is ready to take a high economic risk to maintain its dominant position on the European gas supply market; it will restrict the possibilities of alternative infrastructural projects being implemented (above all, the EU's Southern Corridor) and use the construction of new pipelines as an instrument of political pressure on the present transit countries (especially Ukraine).

South Stream is one of Gazprom's largest and most expensive infrastructural projects. It envisages the construction of a gas pipeline with a total length of approximately 2,430 km (a 925 km maritime section and 1,505 km on-shore in Europe) and an annual capacity of 63 billion m³, which will run from Russia via the Black Sea to Central and South-Eastern Europe. In 2008–2010, Russia signed intergovernmental agreements with all transit countries through which the new pipeline would run according to the design plans existing at that time. Joint ventures were established in the transit countries to supervise the construction of the pipeline sections in each of the countries. The international consortium South Stream Transport AG was put in charge of the maritime section (see Table 1).

The pipeline's route has been changed several times since then. Gazprom announced its most recent variant in October this year. According to the original plans, South Stream was to consist of two branches: a northern branch (Bulgaria, Serbia, Hungary, Slovenia and Austria) and a southern branch (Bulgaria, Greece and Italy). The current version of the project provides for the construction of the northern branch alone, which will be shorter than had originally been planned¹. The first stage will encompass the

¹ Gazprom's attempted takeover of the Austrian gas terminal in Baumgarten was unsuccessful due to objections from the European Commission. This resulted in plans to route South Stream to Austria being relinquished. This means that the pipeline will end in Tarvisio on the Slovenian-Italian border.

construction of a four-branch maritime section (each of the branches will have an annual capacity of 15.75 billion m³) running from the Russkaya compressor station near Anapa (Krasnodar Krai) via the Turkish exclusive economic zone to the Bulgarian coastline in Varna Region. Russian gas is set to be routed as follows: Bulgaria–Serbia–Hungary–Slovenia–Italy (Tarvisio).

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Negotiations are underway with Montenegro, Croatia, Macedonia and Bosnia and Herzegovina concerning the construction of branch lines which would split off from the main pipeline to run to these countries. In turn, co-operation with Austria and Greece has been in deadlock, although Gazprom has not announced its official withdrawal from its plans to supply gas via South Stream to these countries². The South Stream project also envisages the development of transport infrastructure in Russia – 2,446 km of gas pipelines and ten compressor stations in total. The Russian section, called Yuzhny Koridor (Southern Corridor), will be built in two stages. It is scheduled for completion in December 2018. The first gas supplies via the new route are expected to begin at the end of 2015.

² Gazprom is considering the possibility of supplying gas from South Stream to Austria using the TAG gas pipeline (this was built in the 1970s for sending Russian gas via Slovakia and Austria to Italy). If the direction of this route is reversed, gas could be transported from Italy to Austria. As regards supplies to Greece using the new pipeline, Gazprom is planning to start negotiations with Bulgaria concerning the use of existing Bulgarian transport infrastructure.

The raw material resources and the financing of the project

Gazprom has not provided any precise information on the raw material base for the new pipeline in any of its official announcements, and has simply been making assurances that it will be able to fill all the existing and planned transport networks. According to plans concerning Yuzhny Koridor, the **raw material base** is set to be formed by Western Siberian gas fields (the infrastructure under construction in Russia is planned to connect the new route to the Urengoy and Yamburg gas fields). The plans also provide for the possibility of production from gas fields in Yamal³. Furthermore, Russia is considering the use of gas imported from Central Asia (Turkmenistan and Uzbekistan) and from Azerbaijan (the Shah Deniz field). However, it seems likely South Stream will be used to transport gas from these countries only to a limited extent, given the plans to implement competitive projects of gas pipelines running from the Caspian region to Europe⁴ (for example, Azeri gas from Shah Deniz has been allocated to fill the Trans-Anatolian gas pipeline TANAP) as well as increasing gas exports from Central Asia to China.

Gazprom has not yet presented the **financial assumptions** of the project⁵. Its representatives have promised to provide a more detailed

³ These are plans linked to production start-up (October 2012) at Bovanenkovo, the largest gas field in the Yamal Peninsula (4.9 trillion m³). According to Gazprom, its output will reach approximately 46 billion m³ in 2013 and 115 billion m³ in 2017.

⁴ The Southern Gas Corridor is an EU initiative, the implementation of which is intended to contribute to the diversification of the routes and suppliers of gas to Europe and to reduce the dependence on Russia. For more on the scenarios of the implementation of this concept see: A. Jarosiewicz, 'Southern Gas Corridor managed by Azerbaijan and Turkey', OSW Commentary, 18 July 2012.

⁵ In April 2012, the consortium South Stream Transport AG, which is the operator of the offshore section, initiated talks with ING Bank, Credit Agricole and Russian Project Finance Bank to engage them as financial consultants who would facilitate contacts with potential creditors. The participants of the consortium are key clients of Credit Agricole.

outline of the costs in mid 2013, when the tenders for supplies of pipes and other materials are closed. According to initial estimates, the total project implementation cost, including the infrastructure in Russia, will reach approximately 26.6 billion euros⁶. Information on the financing of South Stream sections in individual transit states is equally hazy. In the case of the maritime section, 'project financing' is set to be used (where 30% of the funds will be provided by the participating companies, proportionally to their share in the consortium, and 70% will be loans secured with South Stream assets,

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which will be paid back from the consortium's potential profits). The greatest amount of unofficial information is available on the financing of the Bulgarian section. Gazprom has declared its readiness to incur the total cost here in exchange for Bulgaria lifting transit fees for the gas transported via South Stream for 15 years (2018–2032). It has also been stipulated that Bulgaria will not lose its existing profits from gas transit to Turkey, Greece and Macedonia using its own network – the transport of 15 billion m³ is guaranteed under a long-term contract in force to 2030. The initial expenses of investment implementation in the Serbian and the Slovenian sections (1.7 billion euros and 1 billion euros respectively) have also been revealed. No information, however, has been provided as to who will incur these costs.

⁶ 10 billion euros for the offshore section, approximately 6.6 billion euros for the gas pipeline running through European countries plus approximately 10 billion euros for infrastructure in the Russian Federation.

South Stream as part of the Russian energy strategy

South Stream, according to its original concept devised in 2007, was to contribute to satisfying gas demand in Europe, which was expected to grow in the long run. The officially declared goals of this investment also include the enhancement of the possibilities of exporting Russian gas to Europe, ensuring the diversification of gas transport routes from Russia to Europe, guaranteeing the security and stability of supplies by making Russian exports less dependent on the transit states, and the creation of new jobs⁷.

However, the construction of South Stream is also seen by Moscow as a tool it can use to push through its geopolitical plans. Goal number one was – and still is – to eliminate (the maximum agenda) or at least significantly reduce the role of Ukraine as the main transit route in Russian gas exports to Europe (approximately 70% in 2011). In Gazprom's opinion, South Stream will allow transport routes to be diversified and will avoid supply problems resulting from gas crises in relations between Russia and Ukraine. Considering the total capacity of the existing (Blue Stream, Nord Stream and Yamal) and planned gas pipelines (South Stream), Ukraine would be marginalised as a transit country. If one assumes that Russian gas exports to Europe will remain at a level of 150–160 billion m³ annually after 2018, the Ukrainian system could turn out to be entirely redundant⁸.

Secondly, Russia has been making efforts to preserve its status as Europe's key gas supplier (or even as the sole eastern gas supplier to the EU, in the case of the maximalist approach).

⁷ Official presentation of the South Stream project: www.gazprom.ru

⁸ The total capacity of all existing and planned Russian gas pipelines running to Europe (excluding the Ukrainian system) is 165 billion m³ (South Stream – 63 billion m³, Nord Stream – 55 billion m³, Yamal – 31 billion m³ and Blue Stream – 16 billion m³). In turn, the total annual capacity of the Ukrainian system is 145 billion m³, and the volume of Russian transit via Ukraine has been undergoing a regular reduction (between January and September 2011 it was 78.17 billion m³, while in 2012 it was only 62.8 billion m³).

While pushing through its own infrastructural projects (Nord Stream and South Stream), Moscow is also trying to prevent the creation of other gas pipelines whose competition could challenge the Russian position on the European gas market. As a minimum plan, Russia is attempting to prevent or impede access to Central Asian gas for alternative projects (primarily future Southern Gas Corridor pipelines).

Thirdly, Russia wishes to strengthen its position in the Balkans, first of all by ensuring that Gazprom remains the predominant gas supplier.

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Gazprom is the key gas supplier to the countries located along the route of South Stream. The launch of this new gas pipeline in the Balkans can only strengthen its position. The company's original plan – to use investments to gain control over gas infrastructure in the countries in this region before their accession to the EU – has been invalid since Bulgaria and Romania joined the EU. However, the *fait accompli* method – maintaining the dominant position in gas supplies to the countries which participate in the South Stream project before a further EU enlargement – may prove successful in the case of Serbia. Much will depend on whether and to what extent Belgrade is determined to implement the provisions of the third energy package⁹, which it is obliged to do as a member of the European Energy Community.

⁹ The goal of the 'third energy package' (encompassing two directives and three regulations) is to liberalise the European electric energy and natural gas markets. Its key element is the obligation to separate production, supplies and sales, which can be observed through the application of one of the three models: ownership unbundling, introducing an independent system operator or independent transport operator. Part of the provisions under the third energy package (the certification obligation and those concerning owners of transport systems from third countries operating in an EU member state) will come into effect in March 2013.

Possible scenarios of the implementation of the project

• Legal issues

It is still uncertain whether the full version of the South Stream gas pipeline will be built, even though all necessary bilateral agreements have been signed with the transit states. One important condition on which the implementation of the project depends is that requirements set under European law should be met, especially those included in the 'third energy package'. Meanwhile, the bilateral agreements Russia and the transit states have signed (with the exception of the Slovenian-Russian one) are contrary to its rules because they fail to include provisions which ensure third party access to the new transport infrastructure (the TPA – Third Party Access rule). The agreement with Bulgaria contains merely a general provision on ensuring "fair and unrestricted transit". A possible exclusion of the new gas pipeline from the third energy package, which Russia has consistently called for, would require consent from national regulators in the transit states, followed by approval from the European Commission.

South Stream may not be excluded from the third energy package on the grounds of it being granted the status of "**a project of common interest**" by the European Union, treated as part of the Trans-European Energy Networks (TEN-E)¹⁰ or even should it be recognised as a priority project¹¹. Both of these statuses could at best add prestige to the project and improve its chances for gaining financial support (facilitation in obtaining loans). It may be expected that the next few months will be a period of intensive lobbying from Russia for South Stream to be granted the status of a project of special significance for the EU.

¹⁰ This status has been granted to the Nord Stream gas pipeline.

¹¹ Decision no. 1364/2006/EC of the European Parliament and of the European Council of 6 December 2006 laying down guidelines for trans-European energy networks.

The solution Moscow would welcome most of all would see this issue shifted from the level of internal EU regulations to the political level of bilateral relations with Brussels. Russian representatives have been making efforts for a provision which guarantees the exclusion of Russian gas pipelines from EU regulations to be introduced into a Russia-EU agreement¹². One major argument Moscow may use revolves around the stances taken by Bulgaria and Hungary, the two transit states which are EU member states, since they have granted South Stream the status of a project of strategic (national) significance.

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Ecological issues regulated under European law are another major problem. Neither Gazprom nor any of the EU member states through which South Stream will run have submitted project documentation to the European Commission, which is required *inter alia* in connection with the environmental impact assessments (EIAs). According to information provided by representatives of the Directorate General for Energy, such an assessment may take up to two years in the case of large infrastructural projects, and this may bring about a delay in the implementation of the investment¹³. Another impediment may come about due to moves taken by local ecological organisations, which often very actively express their resistance to new infrastructural projects (as has been the case with Bulgaria and Slovenia).

¹² The Russians are stipulating they require the introduction of adequate provisions in the new Partnership and Co-operation Agreement (PCA 2), which is currently being negotiated.

¹³ ARGUS FSUE, Gazprom takes South Stream FIDs, 1 November 2012, p. 4.

• Economic issues

This project has also given rise to economic doubts. Southern Europe, especially Italy, was to be the main recipient of the gas which will be sent using South Stream. However, data collected over the past few years indicate that demand for Russian gas in Italy has been regularly falling¹⁴. Thus even if gas were exported there via South Stream alone, this would not ensure a sufficient market for the new pipeline. The latest forecasts, which take into account the changes on the gas market, indicate that there will be a major asymmetry between increasing transport capacity linked to the development of the transport infrastructure and a minimal increase in demand for gas (approximately 1–2%) in 2030¹⁵.

In turn, Gazprom's present exports to other countries which were expected to be recipients of gas from South Stream fluctuate significantly below the maximum capacity of the planned gas pipeline (see Table 2). Serbia has signed an intergovernmental agreement with Russia under which the quantities of natural gas to be delivered via South Stream will be larger than previous supplies¹⁶. Serbia is in this, however, an exception and nothing is known about new contracts for gas supplies using this route that would essentially increase Gazprom's exports

¹⁴ 22.4 billion m³ in 2008, 19.1 billion m³ in 2009, 13.1 billion m³ in 2010, and 17.1 billion m³ in 2011.

¹⁵ The total capacity of infrastructure which enabled gas import to Italy was at 113.3 billion m³ in 2011 (including existing pipelines: Transmed, Green Stream, TAG and Transitgas, with a total capacity of 101.8 billion m³, and the LNG terminals La Spezia and Porto Levante, with a total capacity of 11.5 billion m³; while the present level of gas consumption in Italy stands at 69.6 billion m³). If the new transport routes: TAP, TGI, GALSI and South Stream and new LNG terminals were put into operation, the capacity of the infrastructure which enables gas imports to Italy would grow by 175 billion m³, while the forecasted level of gas imports to Italy within the timeframe to 2030 ranges between 70 and 94 billion m³. This means a major surplus of transport capacity over gas demand growth. M. Korchemkin, 'Energy Security in Central & Southern Europe: TANAP vs. South Stream', www.eegas.com

¹⁶ This would be 5 billion m³ of gas annually (approximately 1.4 billion m³ in 2011).

to the remaining transit states¹⁷. Apart from the transit states, other gas recipients could be Bosnia and Herzegovina, Croatia, Montenegro and Macedonia, and also potentially Austria and Greece. The overall energy needs of these countries (Austria and Greece excluded) are approximately 31.32 billion m³. Therefore, South Stream, which could transport 63 billion m³ annually, would be running at half capacity. However, Russia hopes that this balance will undergo a positive change owing to a possible growth in gas supplies to Italian power plants, which are controlled by Electricite de France, a stakeholder in South Stream Transport AG. Other opportunities for entering into new long-term contracts may be ensured from the memorandum concerning Wintershall's (a company controlled by BASF) participation in the construction of the offshore section of the South Stream gas pipeline¹⁸. Gazprom has also hinted at its readiness to become engaged in the construction of gas power plants in some of the countries in this region (for example, Bulgaria). However, it is at present difficult to assess the real timeframes as to when such projects could be carried through.

The project's low profitability is also linked to transit costs. It would be cheaper to transport gas via South Stream than via the Ukrainian route only in the cases of Bulgaria and Serbia. In the case of Italy, which is the main market for this pipeline, transport costs would be higher (see Table 3).

Exports via the Ukrainian route would no longer be cost-effective only if Ukraine significantly raised the transit rates. Thus reaching an agreement with Kyiv would serve Moscow's interests well. However, the fact that Russia is not seeking a compromise and is instead escalating the conflict indicates that it is ready to pay a high financial price for achieving its political goals (depriving Ukraine of transit state status).

¹⁷ A new ten-year contract was signed with Bulgaria on 15 November, which provides for supplies of 2.9 billion m³ of gas annually. The level set in the previous contract will thus be maintained.

¹⁸ A provision in the Gazprom – BASF memorandum (March 2010).

The consequences of the implementation of the project

An analysis of the consequences of the implementation of this project for **Russia** has revealed that the losses will outweigh the profits in the economic balance. Firstly, this investment, which is useless from the point of view of Gazprom's export needs, will consume enormous expenses, and these will be incurred primarily by Russia. The sole beneficiaries in Russia will be the companies involved in the implementation of this project, which are owned by President Putin's close friends. Secondly, the construction of the new transport infrastructure will make Russian gas exports even more dependent on the European outlet. Furthermore, given the oversupply of natural gas in the EU market, the increasingly strong competition from other suppliers and the price pressure on Gazprom, the viability of this enterprise is dubious.

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Using South Stream as an additional instrument of influence in the region, where Russia (Gazprom) continues to enjoy a dominant position, may be mentioned as a benefit. The construction of a new gas pipeline in concert with selected EU member states is undermining the EU's unity and may make them less interested in a deeper liberalisation of the internal market. In turn, the implementation of this project will yield tangible benefits to the transit states located along South Stream's route (**Bulgaria, Serbia, Hungary and Slovenia**). In the short term, these countries have received various kinds of preferences (price preferences, loan promises, etc.) from Gazprom. In the long term, they may expect profits from transit fees and other Russian investments. The implementation

of this project may also contribute to an increase in the political significance of the transit states. The negative consequences will include a higher energy dependence on Russia and possible legal problems in relations with the European Commission (the non-compliance with the third energy package of the bilateral agreements between the transit states and Russia).

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Ukraine has consistently opposed the plans to build South Stream. When this project is carried through, Ukraine will no longer be a key transit state. This may have negative economic (the lack of income from transit fees) and political (undermining its position in negotiations concerning energy issues with Russia) consequences. The scale of the losses will depend on the scope of implementation of this Russian project (the timely completion of the construction and filling the new pipeline with gas).

The balance of the European Union's profits and losses is not clear. On the one hand, the EU wished to ensure secure supplies of oil and gas, and is interested in the construction of new transport routes. On the other hand, the implementation of another Russian infrastructural project will mean greater dependence on a single supplier. However, in practice this may offer some benefits: Russian funds would be invested to carry out the project, and a new transport route – seen as an alternative in the EU – would be created. Besides this, some EU member states are reluctant to sign new long-term contracts. Therefore, when the contracts which are currently in force expire, nothing will prevent them from receiving gas from other sources (LNG from Australia, Qatar, the USA or Canada).

Conclusions

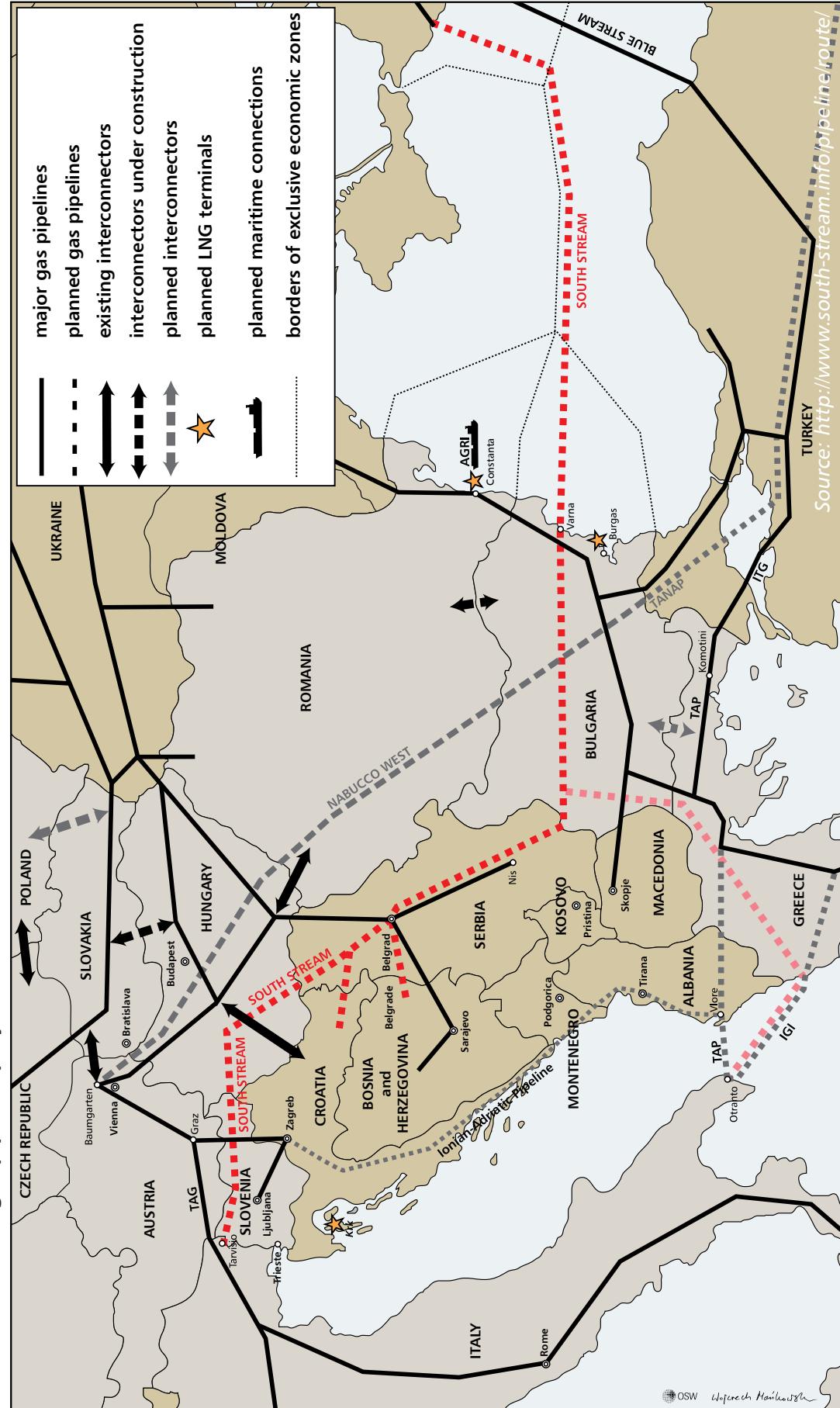
The determination and the urgency in the efforts to launch this risky and very expensive investment, without a guarantee of demand for gas, prove that Moscow is determined to build another gas pipeline running to Europe, even though the situation of the European and domestic gas markets is unfavourable for Gazprom. The development tendencies on this market – the oversupply of gas, intensifying competition in connection with continuing liberalisation, pessimistic gas demand forecasts and the declining popularity of expensive Russian gas – all reduce the likelihood that South Stream will be profitable. The official inauguration of the offshore section's construction two years before its planned commencement (in 2014) was aimed primarily at serving propaganda purposes. Moscow wants to present South Stream as a project which is being implemented quickly and effectively. This provides grounds for the intensification of Russian efforts to gain political and financial support for its implementation. Much seems to point to the fact that Russia also views the new gas pipeline as a kind of guarantee that Gazprom will retain control over part of the European market.

In its desire to build a new gas pipeline running to Europe, Moscow has made manifest primarily its readiness to pursue major geopolitical goals regardless of the economic costs, hoping at the same time to reach a compromise with Brussels on the conditions of the application of the third energy package with regard to South Stream. Besides this, it seems that a withdrawal from this large infrastructural project (seen as "too big to fail"¹⁹), which has been treated as a strategic goal in Russia's external energy policy, would mean a political failure and tarnish the image of the Kremlin. This "energy superpower" cannot afford that.

¹⁹ P. Baev, I. Overland, 'The South Stream v. Nabucco pipeline race: geopolitical and economic (ir)rationales and political stakes in mega-projects', *International Affairs*, 86, (5), 2010.

MAP

The South Stream gas pipeline project



Source: <http://www.south-stream.info/pipeline/route/>

APPENDIX

Table 1. South Stream: Agreements, sections length, estimated costs

Country	Intergovernmental agreement (date)	Investment decision (date)	Joint venture	Section length (km)	Construction cost (billions of euros)
Austria	25 April 2010	-	South Stream Austria GmbH (Gazprom 50%, OMV 50%)	-	-
Bulgaria	18 January 2008	15 November 2012	South Stream Bulgaria AD (50% Gazprom, 50% Bulgarian Energy Holding EAD)	540	3.3
Croatia	2 March 2010	-	-	-	-
Greece	29 April 2008	-	South Stream Greece S.A. (Gazprom 50%, DESFA SA 50%)	-	-
Serbia	25 January 2008	29 October 2012	South Stream Serbia AG (51% Gazprom, 49 % Srbijagaz)	470	1.7
Slovenia	14 November 2009	13 November 2012	South Stream Slovenia LLC (50% Gazprom, 50% Plinovodi d. o. o.)	266	1
Offshore section	Unilateral consent from Turkey for the construction of the maritime section running through the Turkish exclusive economic zone	-	South Stream Transport AG (Gazprom 50%, Eni 20%, Wintershall Holding GmbH 15%, EDF 15%)	925	10
Hungary	31 January 2010	31 October 2012	South Stream Hungary Zrt (Gazprom 50%, MVM 50%)	229	0.6

Table 2. Gas imports from Russia

Country	Import volume from Russia in 2011 (in billions m³)
Austria	5.43
Bulgaria	2.81
Bosnia and Herzegovina	0.28
Greece	2.90
Macedonia	0.13
Romania	2.82
Serbia	1.39
Slovenia	0.53
Hungary	6.26
Italy	17.1
Total	39.65 (31.32 when Austria and Greece are excluded)

Table 3. Transit costs

	Transit cost (US\$ per 1000 m ³)	
Gas recipient state	Ukraine	South Stream
Bulgaria	approx. 75	approx. 70
Serbia	approx. 105	approx. 80
Italy	approx. 90	approx. 97

Source: Chi-Kong Chyong, 'The Economics of the South Stream pipeline in the context of Russo – Ukrainian bargaining', <http://www.usaee.org/usaee2011/best/chyong.pdf> (3 December 2012).

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