

The Rise and Fall of South Stream and implications for a European Energy Union

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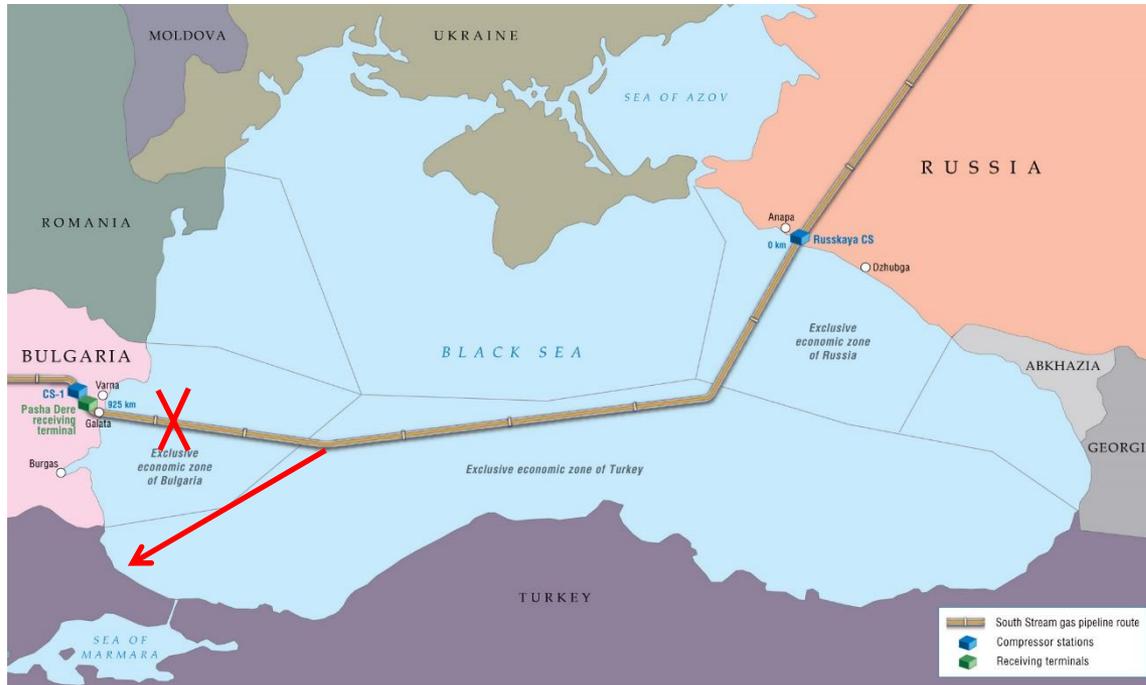
- The Rise and Fall
- Implications for Gas Infrastructure
Investment in South and Eastern Europe
- Conclusions

Strategic approach to pipeline investment?



Source: http://www.gazprom.com/f/posts/26/120997/map_u_potok_eng_2_1.jpg

South Stream v.2 or “Turkish Stream”



Source: Gazprom

- Entry point of the offshore pipeline is Kiyiköy (Lüleburgaz, ca. 150 km from Istanbul)
- **47 bcm** will be delivered to the **Turkey-Greece border, Ipsala, which is 10 km from the entry point of the TAP pipeline**
- 16 bcm is intended to Turkey, and particularly to meet the growing demand in western part of Turkey
- The first line (ca. 16 bcm/year) to Turkey is expected end of 2016

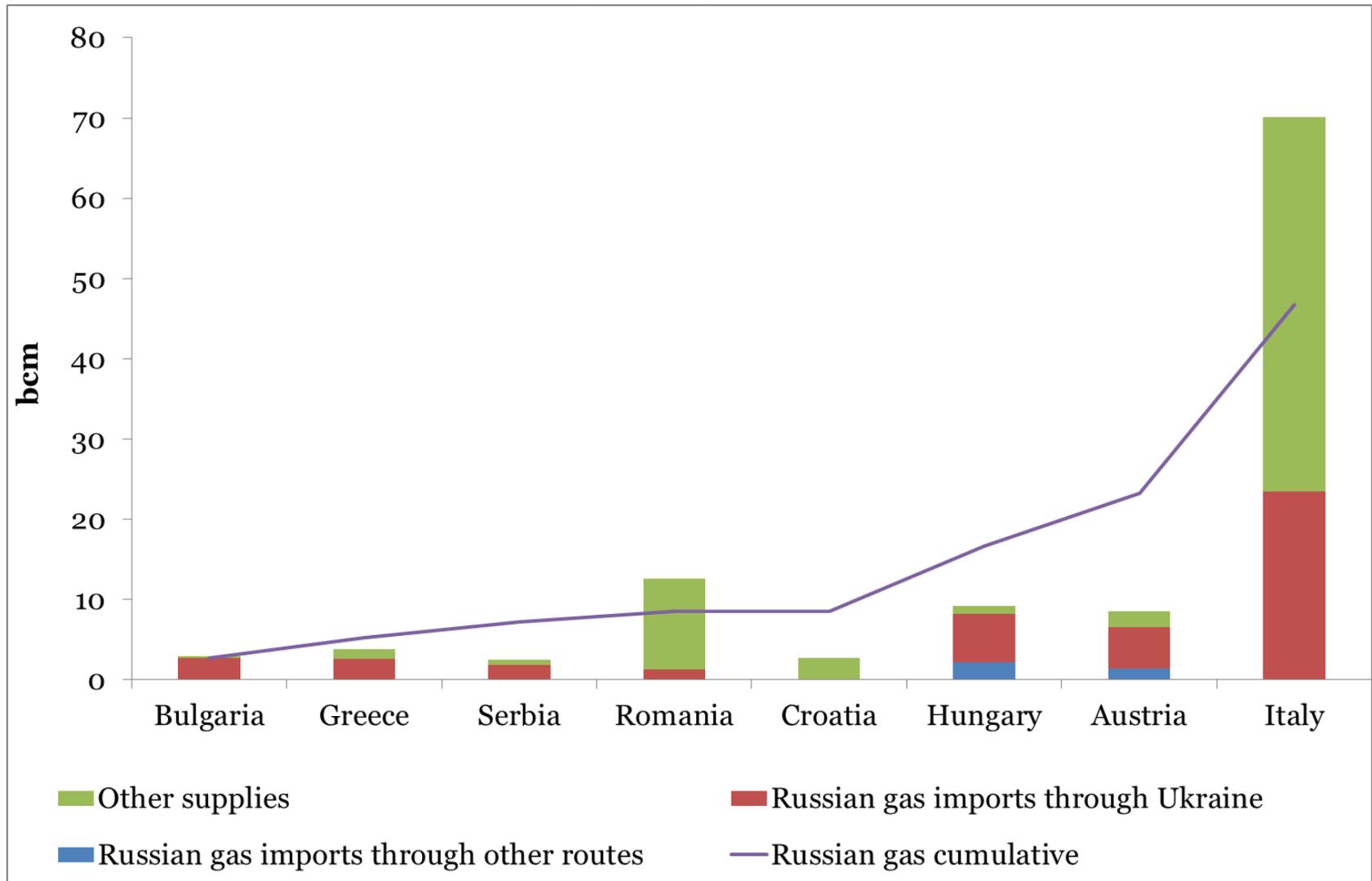
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Implications of the South Stream cancellation and Russia's new 'Turkish Stream' proposal

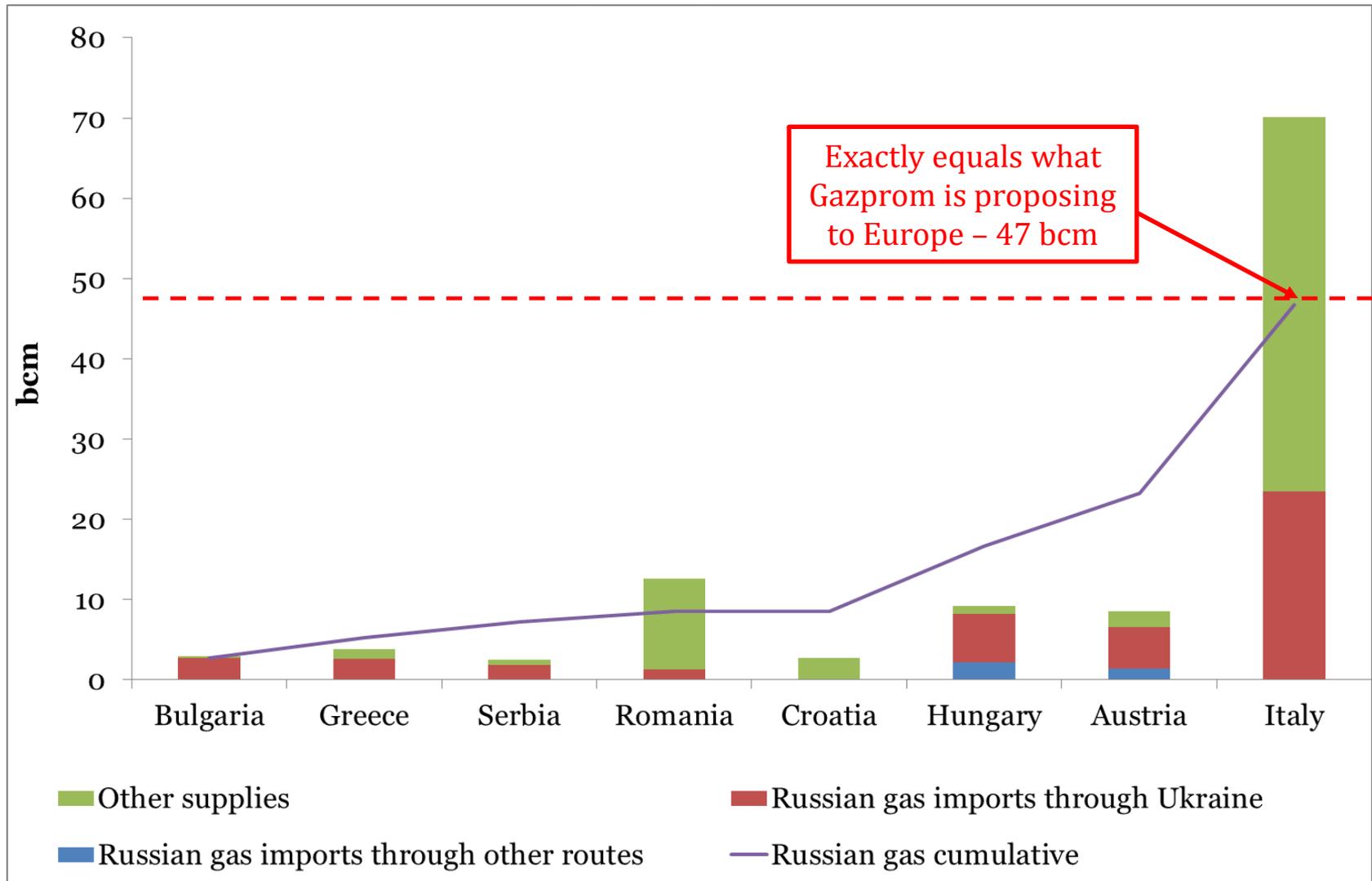
- Several possible options:
 1. European companies invest in pipelines & networks in south-east and central Europe to bring gas from TK - - > **the Russian way**
 2. European companies invest in Ukraine's gas network - - > **the Ukrainian/EC way**
 3. Do nothing and let Russia diversify (partially) to Asia, leaving Europe with Russian gas through Nord Stream & Yamal-Europe pipelines only - - > **the Chinese way**
 4. or a **combination** of the above options?

Gas consumption in south-east and central Europe by sources



Source: IEA (2014)

Gas consumption in south-east and central Europe by sources



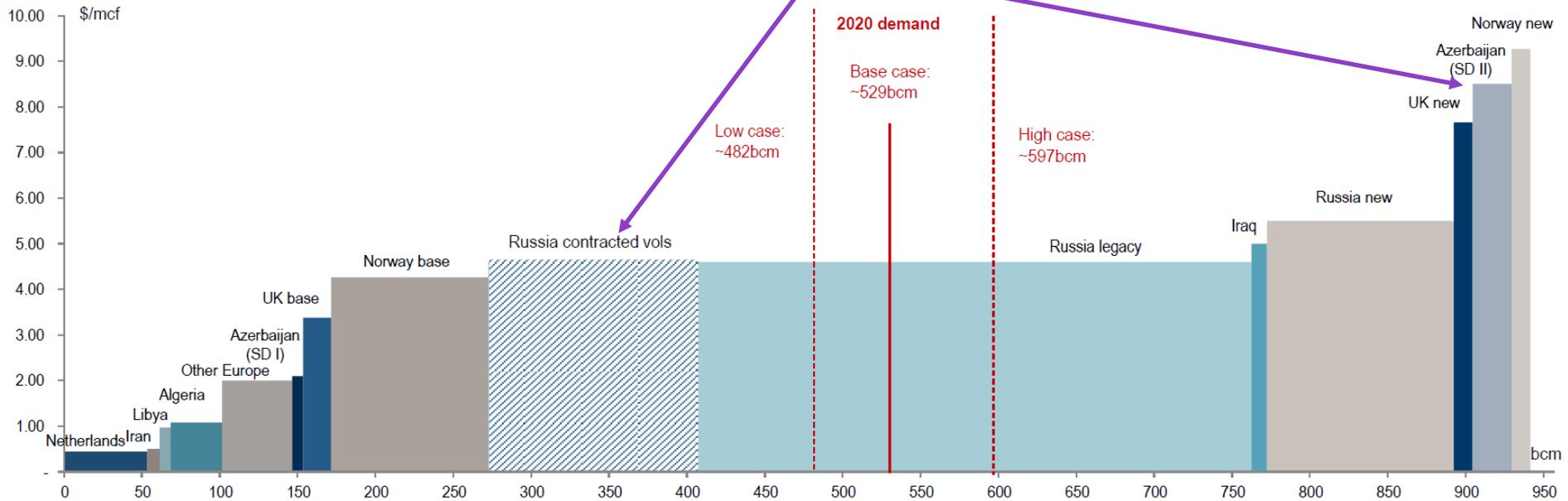
Source: IEA (2014)

How to bring gas from Turkey-Greece border to Europe?

- Taking into account that Gazprom proposes an offtake point which is just 10 km away from entry point of the TAP pipeline – **can shippers use TAP to bring RU gas to Europe?**
- TAP's capacity expansion (ca. 10 bcm/year) should be available for **shippers with non-SD2** gas to book capacity:
 - investment to expand is minor (installing compressor stations);
 - capacity will be auctioned and the reservation price is the tariff set for the initial phase of the project;
 - Premium (revenue above the reservation price) generated through auctions will be collected by authorities of Greece, Albania and Italy and distributed to consumers
- If this is the case, from which sources?

Russia can surely undercut Azeri gas and hence use capacity of the TAP expansion if needed

Russian gas is almost twice cheaper than Azeri SD2



Source: Credit Suisse

Financing new pipelines in south-east and central Europe

- Assuming that we have the 10 bcm/year from TAP expansion, how to finance other infrastructure?
- Two new pipelines (interconnectors) are needed:
 1. One for Italy with capacity 16 bcm/year - - > 16bcm+10bcm from TAP-2, **equals total Russian gas imports in Italy (2013)**
 2. Another pipeline for other countries with ca. 20bcm/year of capacity
- Can these hypothetical pipelines be qualified for the **second wave of the PCIs**?
 - PCIs are selected based on CBA, an agreed methodology to be used by all participants and NRAs
- **Should they be exempted from TPA?** The answer depends on financing strategy:
 1. regulated model whereby TSOs invest using public funds – NO
 2. private investment (merchant model) using high debt/equity ratio – YES

Merchant vs. Regulated model for new pipelines in south-east and central Europe

Regulated Model:

- National TSOs of countries (other than Italy) may find difficult to fund the two large pipelines in the current environment
- If regulated model, then it must be cash-rich TSOs from western and southern Europe (e.g., Snam Rete Gas, Enagas, Gasunie etc.?) may afford such ventures
 - Impact on energy bills of consumers (Italian, Austrian or Greece and Bulgarian or all)?

Merchant vs. Regulated model for new pipelines in south-east and central Europe

Merchant Model:

- private investment (merchant model) with high debt/equity ratio would require exemption from TPA & regulated tariff setting:
 1. *"The investment must enhance competition in gas supply and enhance security of supply"*
 2. *"The level of risk attached to the investment must be such that the investment would not take place unless an exemption was granted"*
 3. *"The infrastructure must be owned by a natural or legal person which is separate at least in terms of its legal form from the system operators in whose systems that infrastructure will be built"*
 4. *"Charges must be levied on users of that infrastructure"*
 5. *"The exemption must not be detrimental to competition or the effective functioning of the internal market in natural gas, or the efficient functioning of the regulated system to which the infrastructure is connected"*

If Merchant model, can project developers pass 'competition and SoS tests?'

- The five pillars of Sevcofic's energy union concept (draft):
 1. Supply security, based on solidarity and trust
 2. A competitive and completed internal energy market
 3. Moderation of demand
 4. Decarbonisation of the EU energy mix
 5. Research and Innovation
- Supply security:
 - Diversification of supply, both as regards **routes** and energy **suppliers**: Southern gas corridor (**Caspian gas**), partnership with **Norway**, **Mediterranean** gas hub, cooperation with **Africa**, potential of **LNG** and energy from **NA** - -> **no mentioning of Russia?**
 - **Need a strategic approach to challenges in energy relations between Russia and Ukraine, or the South Stream**

If Merchant model, can project developers pass ‘competition and SoS tests?’

- A competitive and completed internal energy market
 - Accelerate PCIs and the work on the **second wave of PCIs**
 - Is security of supply still an argument for the EC, if these pipelines undermine Ukraine’s transit position?
 - Regulators’ joint decision (Italy, Albania & Greece) on TAP exemption: *“The Authorities agree that, in principle, any new gas infrastructure enhances security of gas supply”*
- Project developers will find it difficult to justify exemption from TPA, given that
 - the risk profile for Russian gas and new sources are different
 - Uncertain if another piece of infrastructure would enhance competition...
 - Given a **‘need for a strategic approach vis-à-vis Russia’** dedicated pipelines that connect to the proposed Turkish-Greece hub to bring Russian gas to Europe will not be politically supported by the EC, at least in the short-term (a function of Russia-Ukrainian relations)

Conclusions

even more questions....

- Can we assume that Gazprom is ready for full hub indexation and changed its export strategy from *“from wellhead to burner tip”* to border delivery?
- For a hub (in Turkey) to emerge, one needs also storages... and with the current and proposed Russian & Azeri gas volumes this is hardly going to be a hub...
- CEER (at the 26th Madrim Forum) on GTM2: *“Incentivise European TSOs to jointly develop complex projects bringing gas from relatively distant / new geographies”*
- An innovative approach to develop southern and central European gas markets in cost-efficient and sustainable manner is needed – WHAT, HOW & BY WHOM?

Thank you for listening

Questions & comments are welcomed

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