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# Natural Gas Supplies to Central Europe *Changing Dynamics Since 2010*

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*ECT Executive Training Programme, Krakow, 19<sup>th</sup> May 2016*

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### IEA - Gas Trade Flows in Europe, in Mcm





# Visegrad Gas Supplies

- Four major developments in the Central European gas market, and why they matter:
  - Declining Russian gas transit via Ukraine
  - Shift from ‘East-West’ to ‘West-East’ gas flows in the Czech Republic and Slovakia
  - Hungary extends its contract with Gazprom until 2018
  - Poland’s gas imports: Virtual reverse flows from Germany and new supplies via LNG import terminal at Swinoujscie



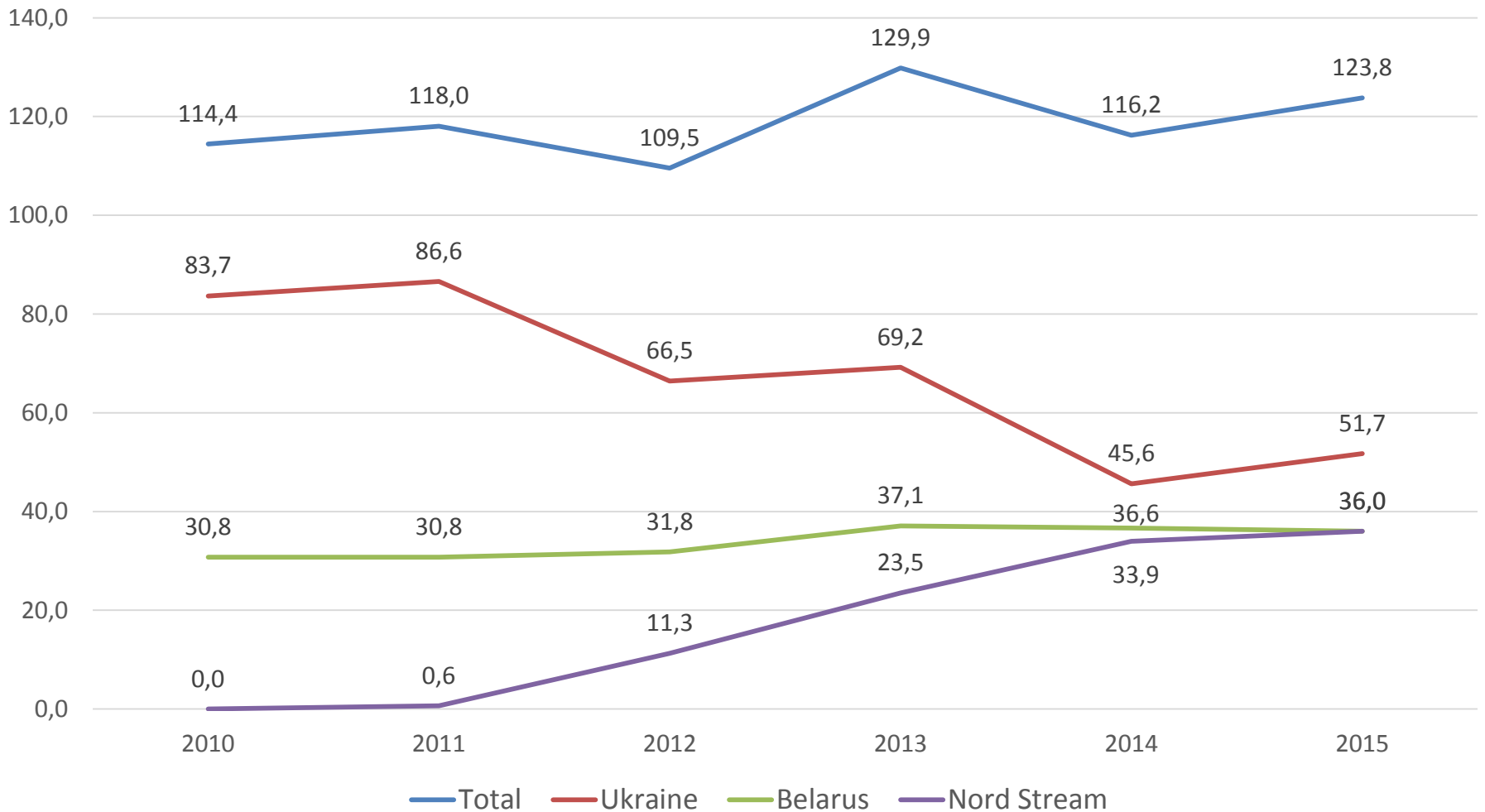
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# *Declining Russian Gas Transit via Ukraine*

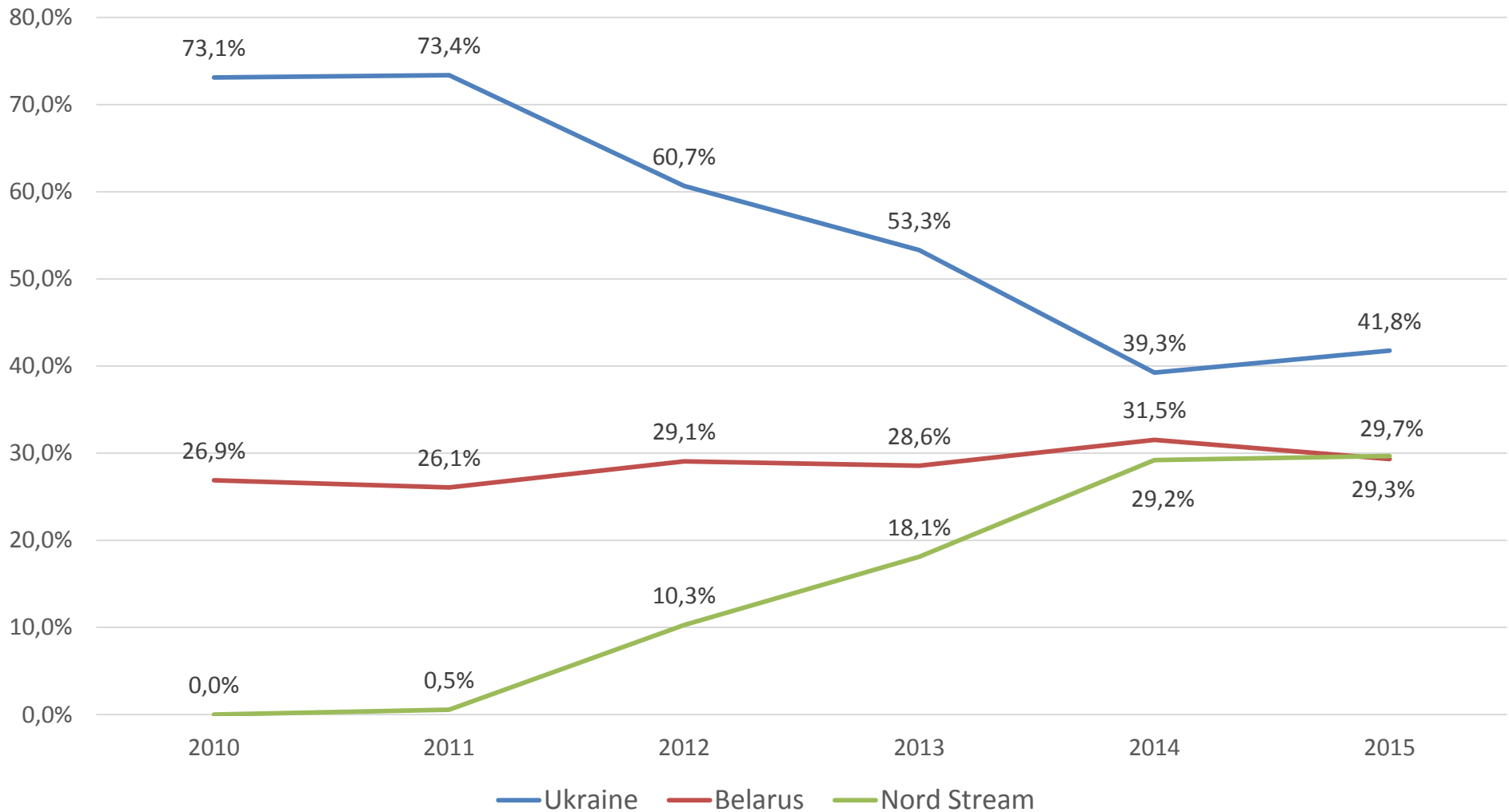


### Russian Gas Exports to Europe (minus Turkey & Baltics) By Route (2010-2015)





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# Impact of Declining Ukrainian Transit

- In 1990s, 95% of Russian gas exports to Europe delivered via Ukraine
- Yamal-Europe (2006) shifted some transit from Ukraine to Belarus
- Since 2010, use of Nord Stream has reduced Ukrainian transit further
- Result is 'divided Europe':
  - Western Europe receives Russian gas via Yamal & Nord Stream
  - Central & SE Europe receives Russian gas via Ukraine
  - Poland, Hungary, Serbia, Slovakia, Austria, Slovenia, Croatia, Italy, Romania, Bulgaria, Greece, FYRM
  - But what about the Czech Republic?



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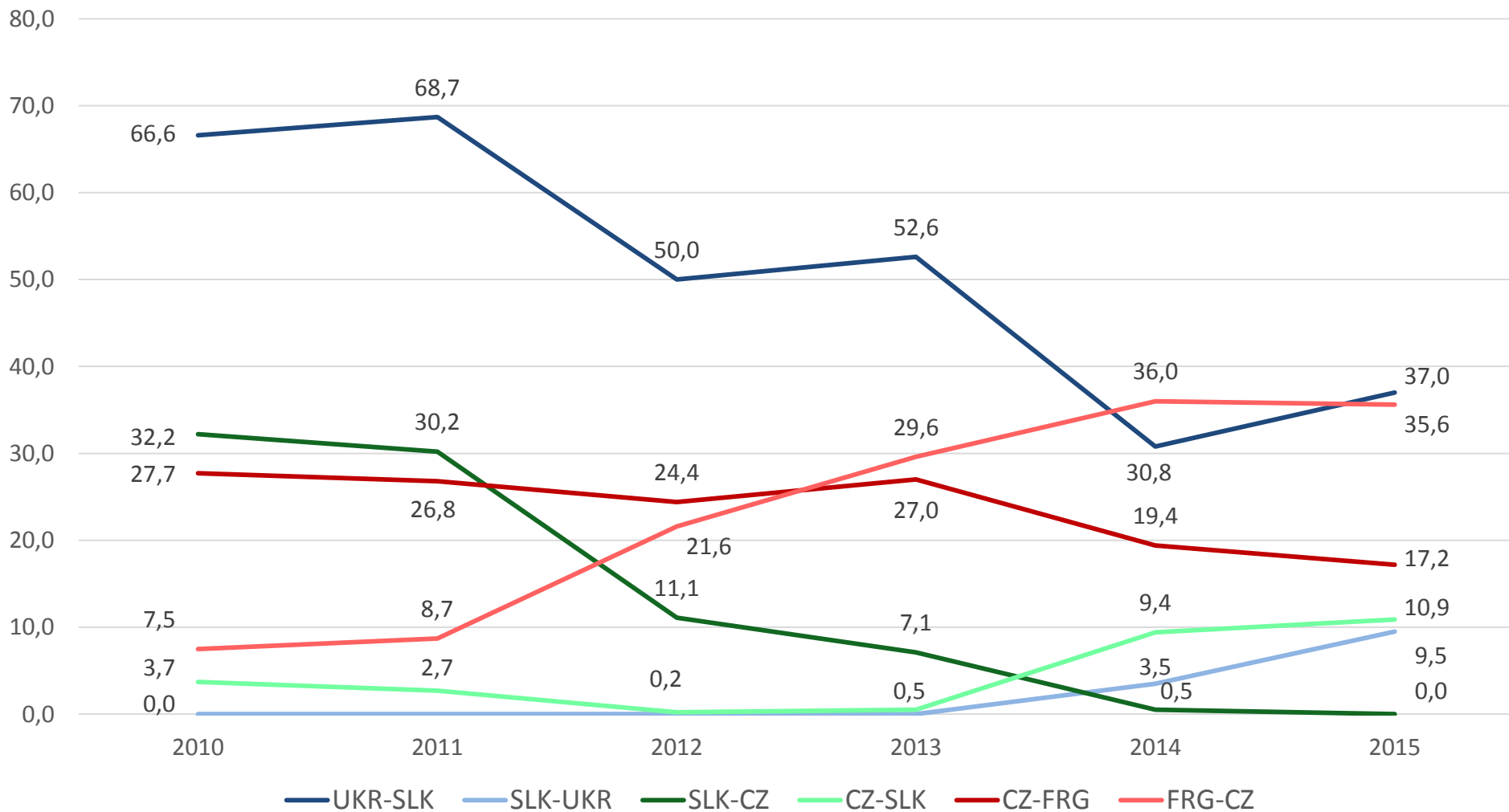


# *Czech Republic*





## Gas Flows in the Czech Republic and Slovakia, bcm (2010-2015)





# Gas Flows in the Czech Republic

- In 2010, CZ received gas from Russia via Ukraine & Slovakia, of which CZ transited most onwards to Germany ('East to West')
- In 2015, CZ received no gas from Slovakia
- Instead, CZ received gas from Germany, of which more than half was sent on to Slovakia and Ukraine
- CZ now imports Russian gas via Nord Stream
  - RWE-Gazprom contract runs until 2035
- *"Since January 1, 2013, gas volumes previously transported to Lanžhot through the Uzhgorod transit corridor have been completely rerouted to the Nord Stream gas pipeline" (Gazprom Export)*



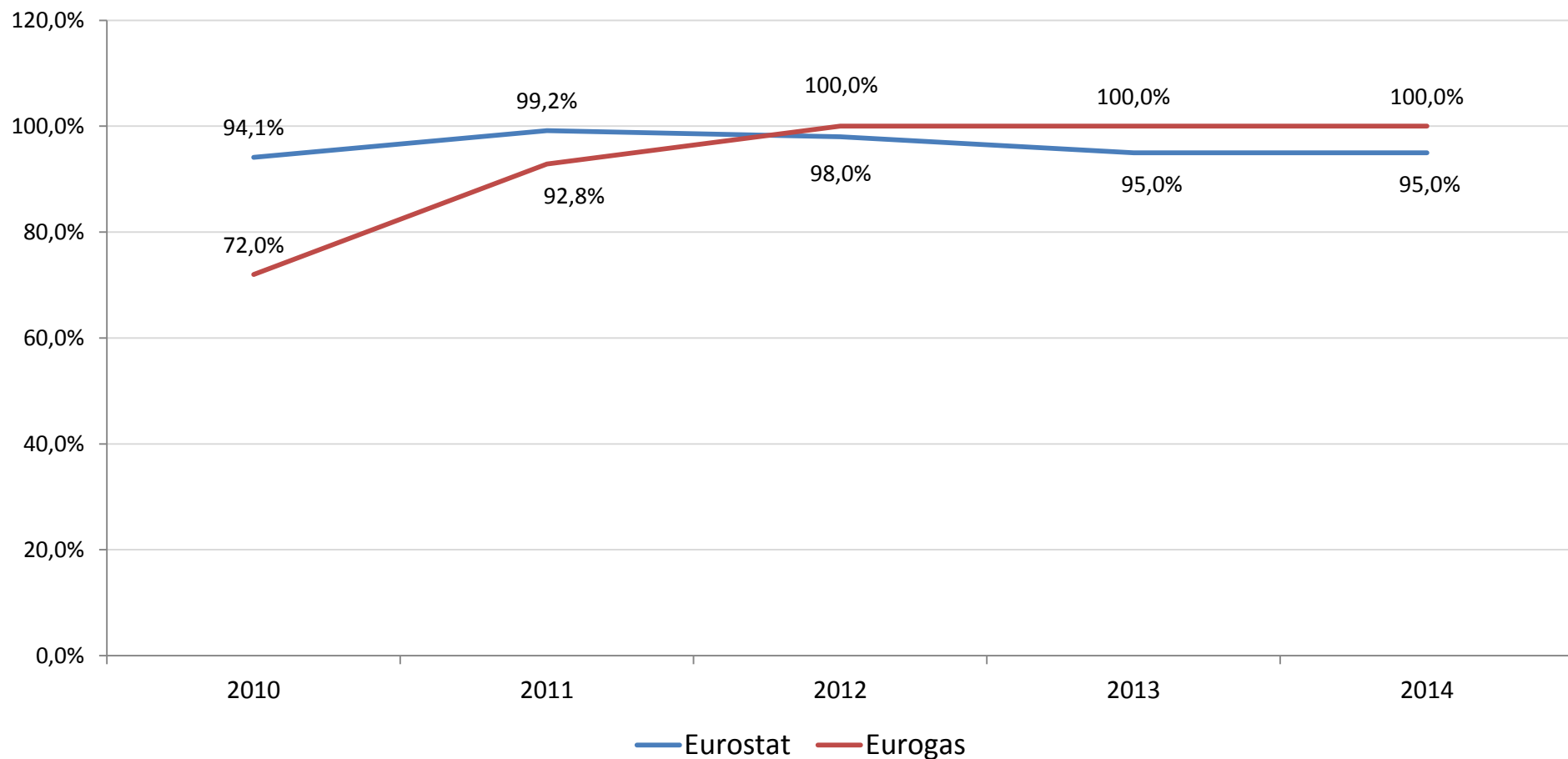
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*Hungary*

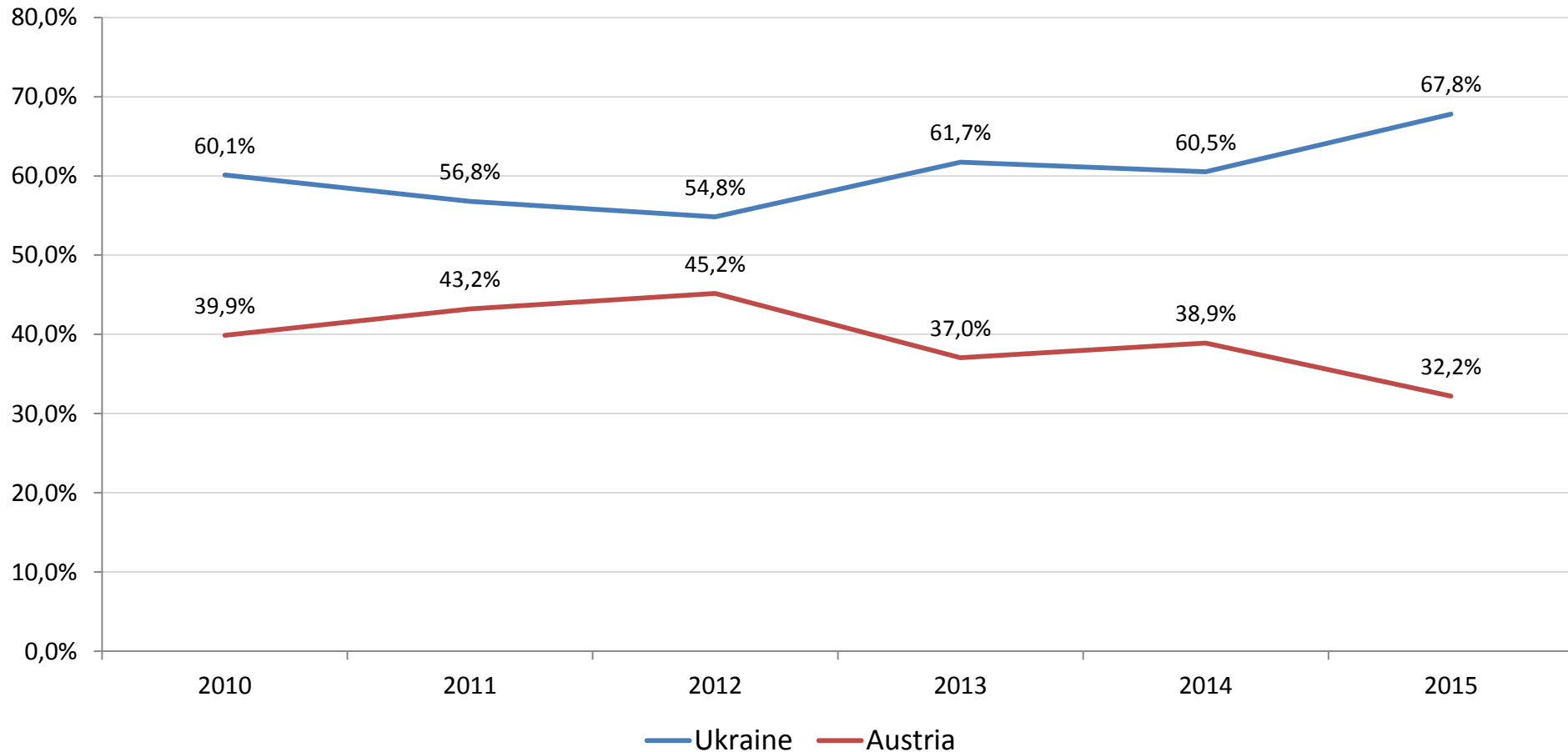


# Share of Russia in Hungarian Gas Imports





# Hungary's Gas Imports By Route (2010-2015)





# Trends in Hungary's Gas Imports

- Dramatic decline in import volumes 2010-2015 (9.4 bcm → 6.2 bcm)
- Share of Ukrainian transit in imports is rising
  - Reduction of Russian gas deliveries to CZ, Austria & Germany via Ukraine
- Gazprom remains dominant supplier to Hungary (PanRusGaz)
  - In 2015, existing contract was extended to 2018
  - Hungarian gas market dominated by MVM (shareholder in PanRusGaz)
- Hungary has annual imports of 6.2 bcm (2015), and 4.2 bcm p.a. import capacity from Baumgarten (Austria)
- If Hungarian market is liberalised, spot purchases from Baumgarten would be possible – But does the Hungarian govt want liberalisation?



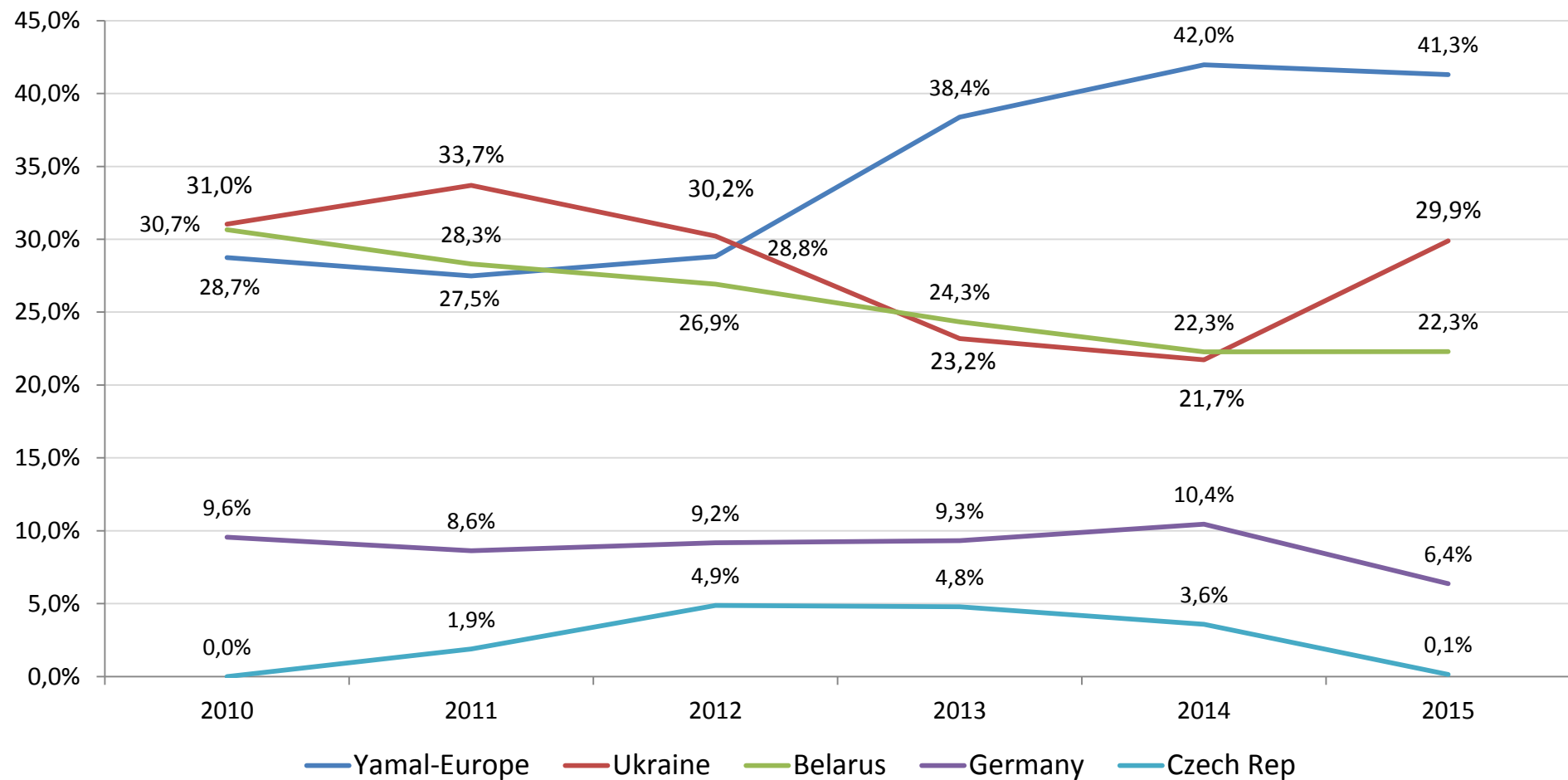
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*Poland*



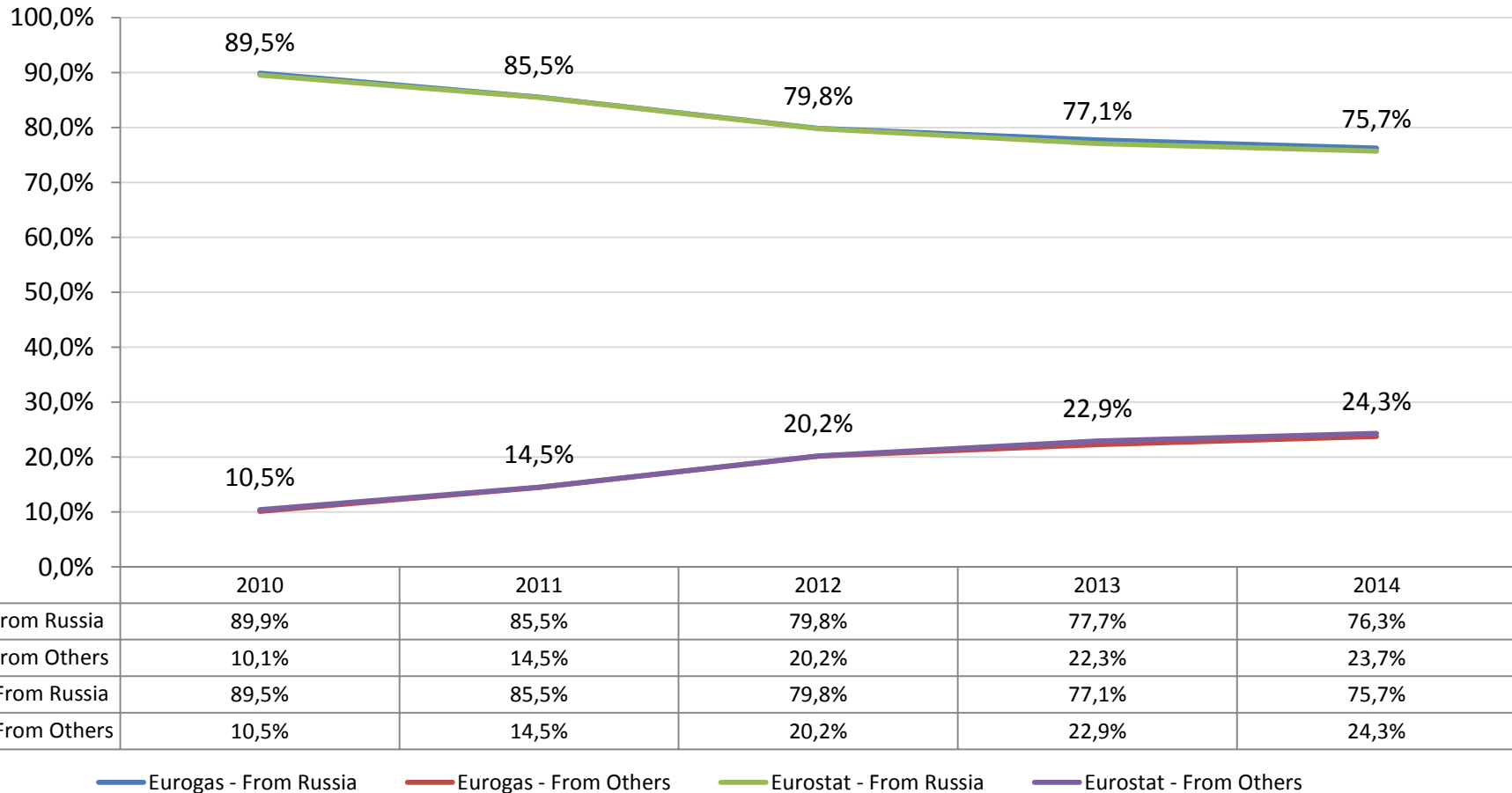
# Poland's Gas Imports By Route (2010-2015)







# Poland's Gas Imports By Source (2010-2014)





# Trends in Poland's Gas Imports

- Increased imports & transit via Yamal-Europe pipeline
  - Linked to 'virtual reverse-flow' imports from Germany?
- Share of imports delivered via Ukraine rather stable (28-34%)
- Q1 2016 shows beginning of LNG imports
  - Terminal cap of 5 bcm p/a and contract with Qatargas for 1.3 bcm p/a
  - Interconnectors with CZ (2017) & SLK (2018) under development
- PGNiG is reducing dependence on Gazprom. In 2014:
  - 73% of imports (8.1 bcm) sourced from Gazprom
  - 27% of imports (2.9 bcm) sourced from other companies (German spot market)
  - But contract with Gazprom runs until 2022 – Limited options until then



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## *Conclusions*



# Trends in Visegrad Gas Supplies

- Nord Stream has divided Europe into those countries which receive Russian gas via Ukraine and those which do not
- But is also facilitates West-East flows to Ukraine via CZ & SLK
- Hungarian situation will remain stable until 2018 & much will depend on the development of competition on Hungarian market
- Poland has relatively stable import volumes, and is using Yamal-Europe to access 'virtual reverse' imports from Germany
- LNG terminal offers new supplies for Poland & interconnectors will make small volumes of LNG from Poland available to CZ and SLK



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