

For Discussion: EU Natural Gas Overview

Max Pyziur
September 23, 2019
Washington

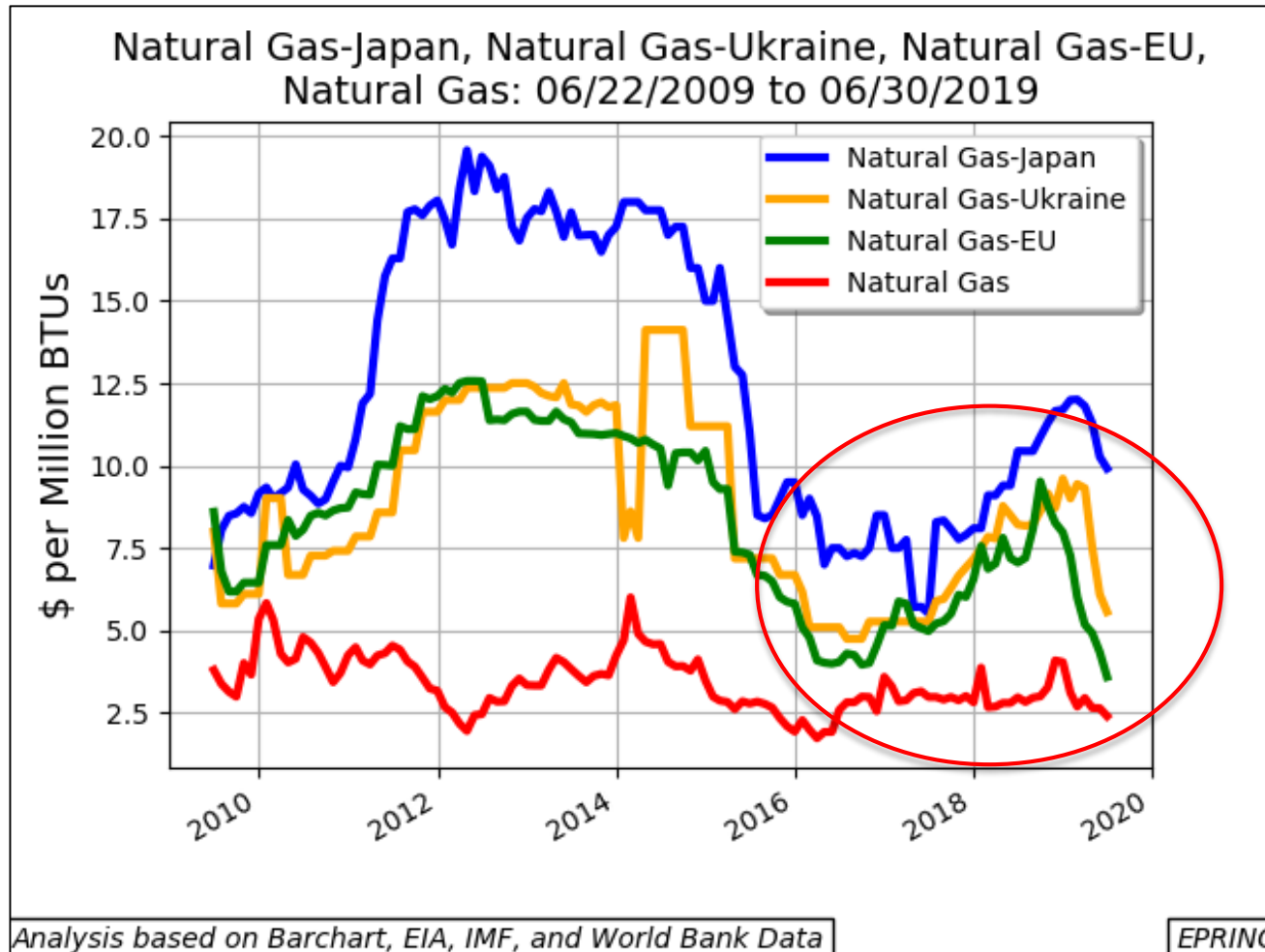


EU/European Natural Gas Overview

- **Prices in Key World Regions**
- **EU Natural Gas Supply / Demand**
- **EU Natural Gas Imports**
- **EU Natural Gas Inventories (+ Ukraine)**
- **Select view of Natural Gas Trends Elsewhere**

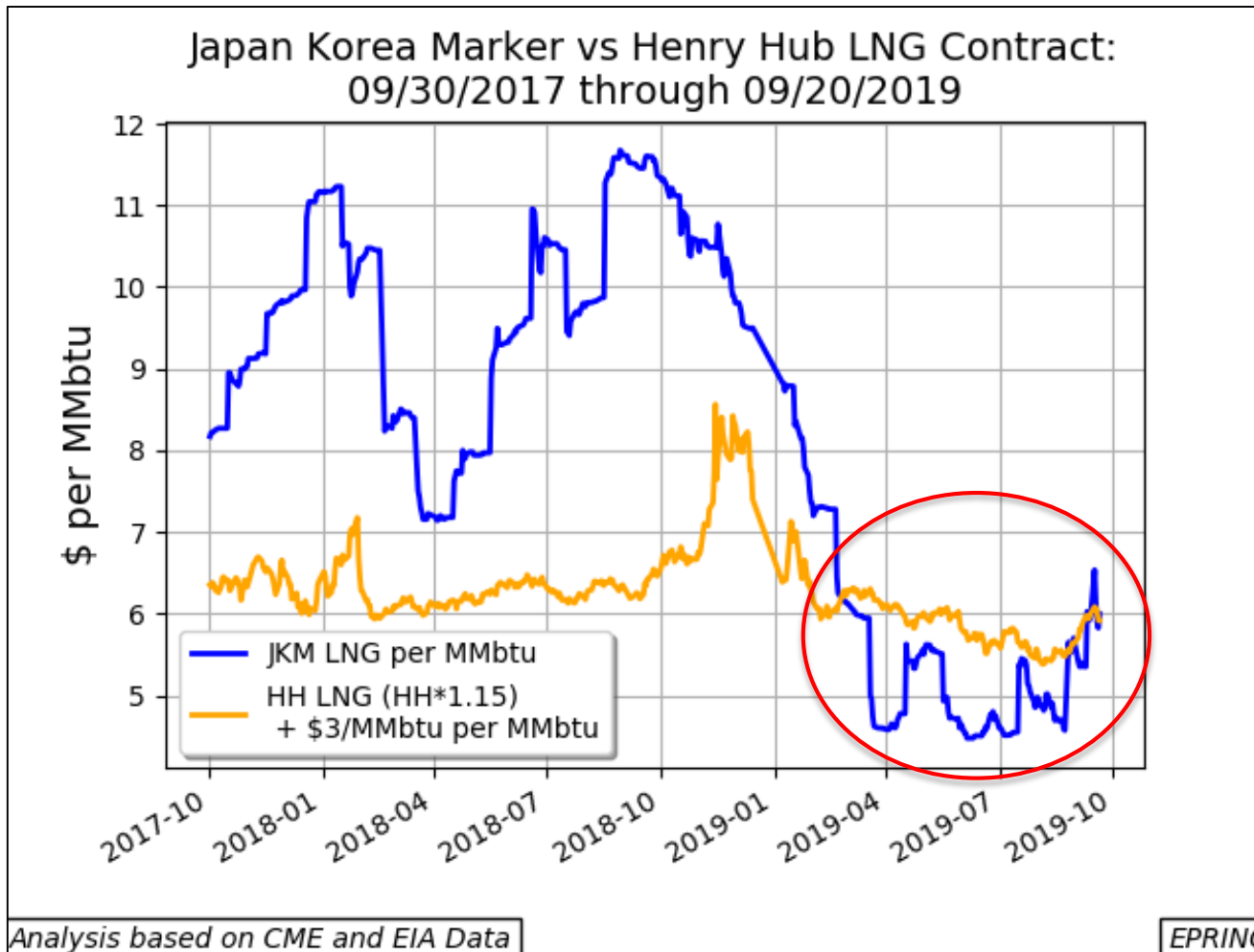
Prices in Key World Regions

Regional benchmarks are declining & converging #1 ...



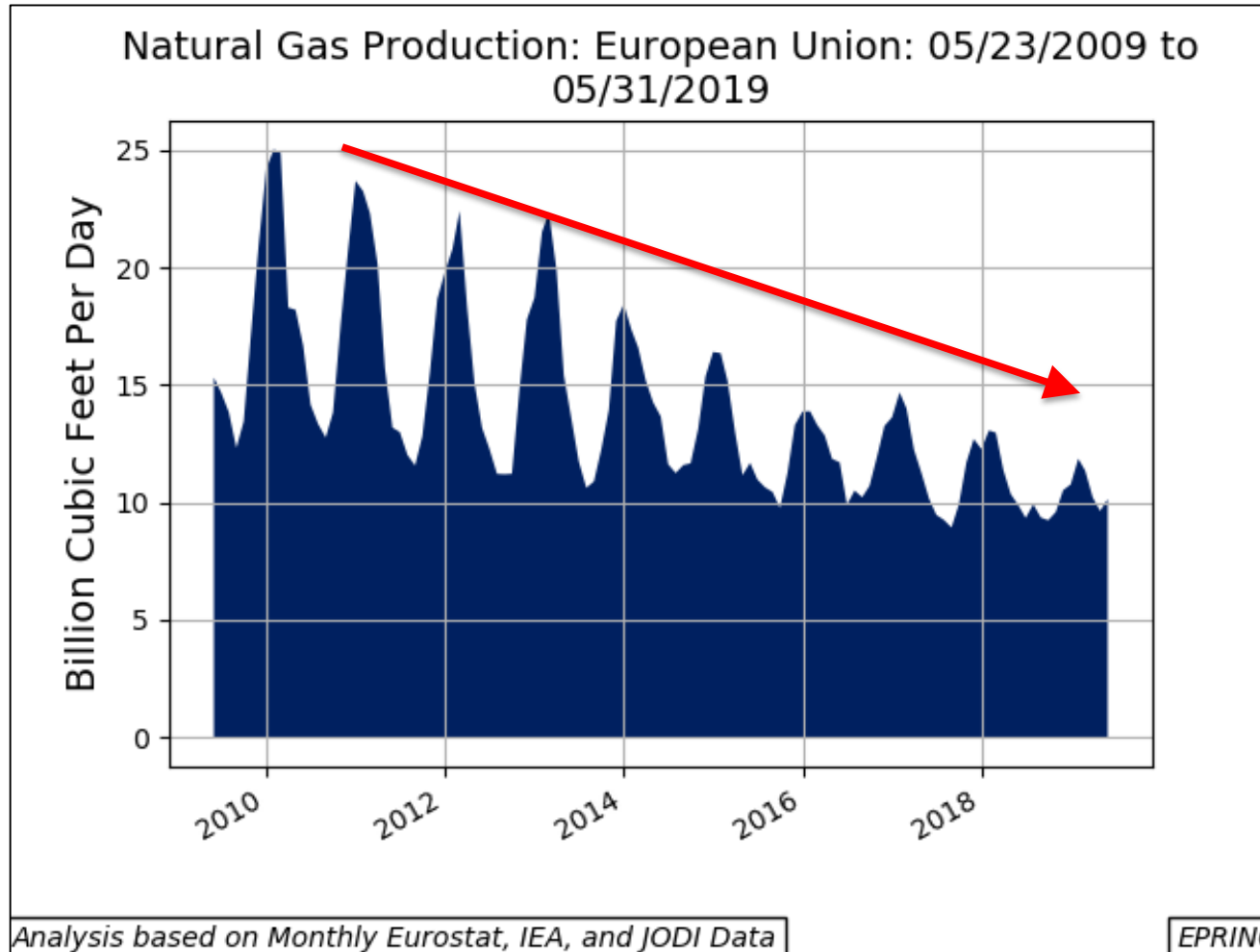
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... as well as key contract benchmarks ...

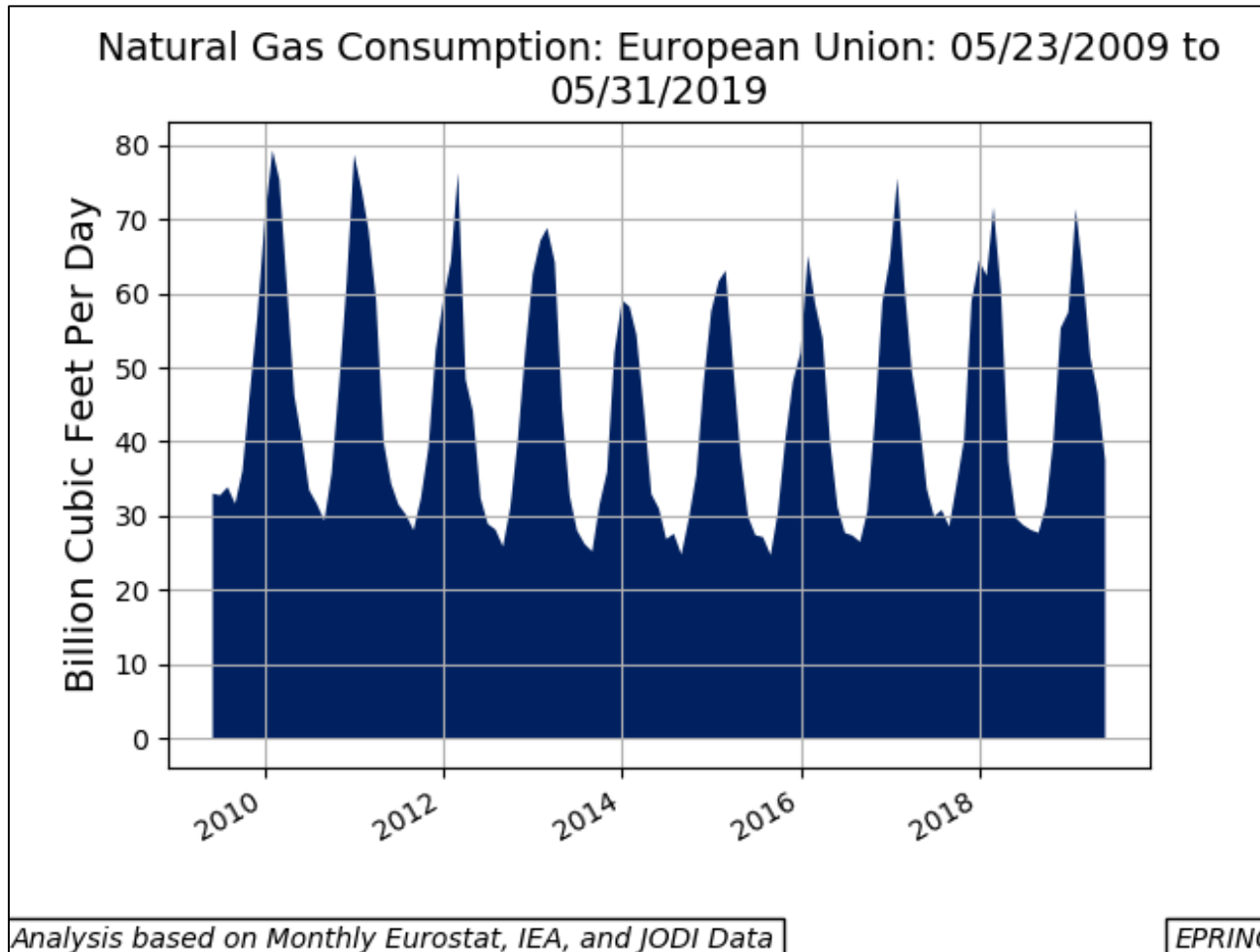


EU Natural Gas Supply / Demand

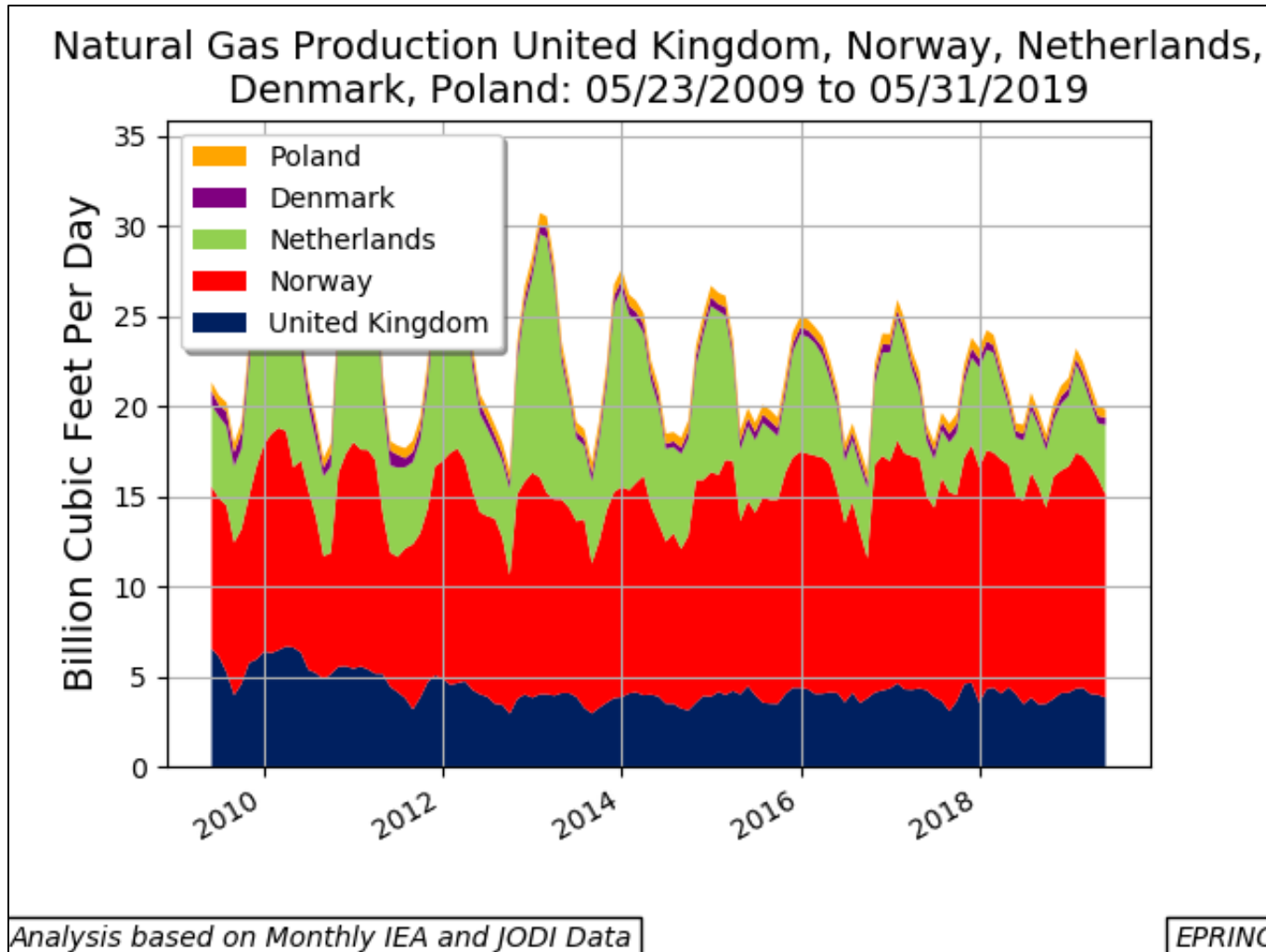
EU Natural Gas Production trending lower...



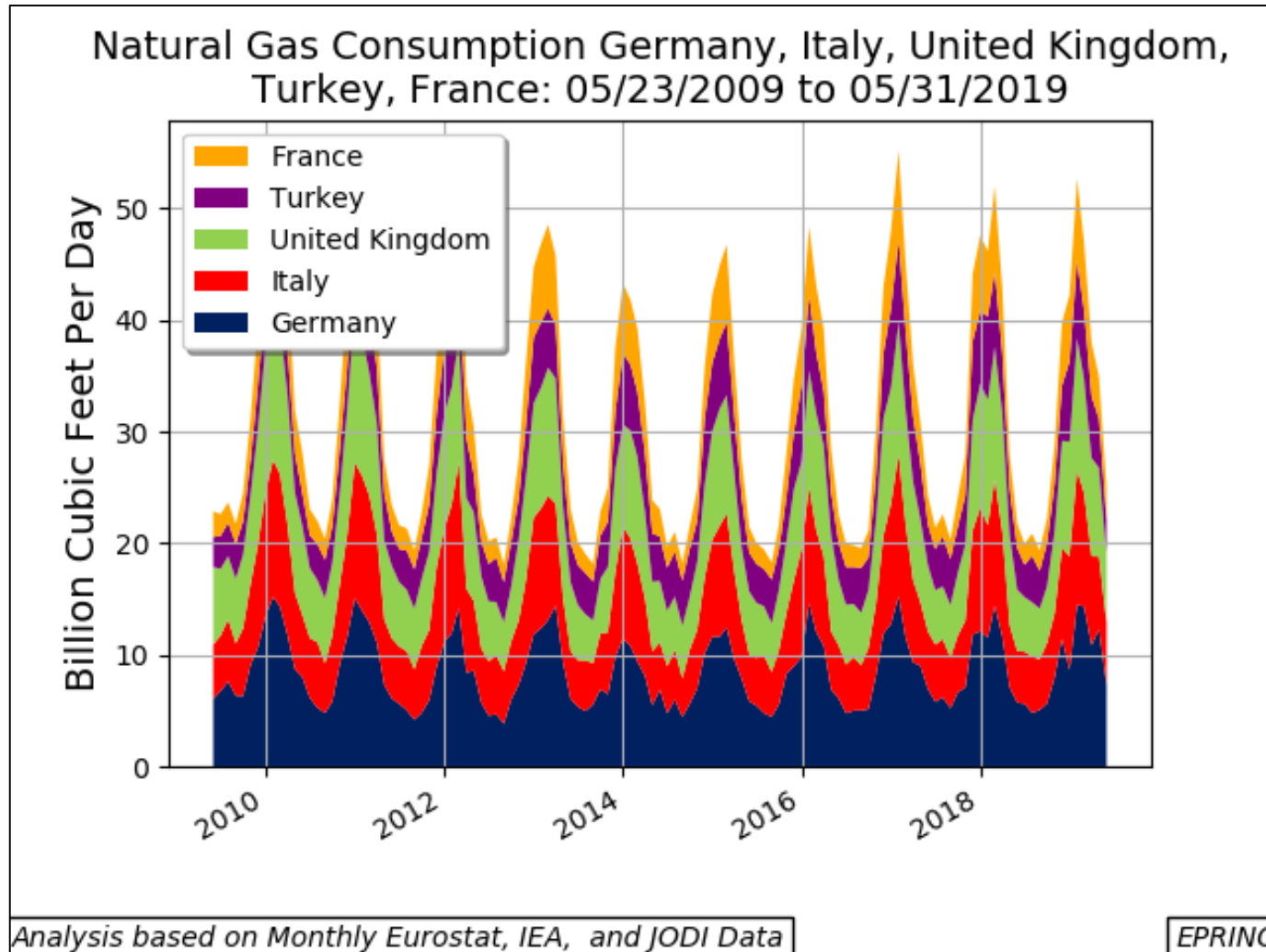
... while Consumption is steady ...



Select View: EU + Norway NG Production ...

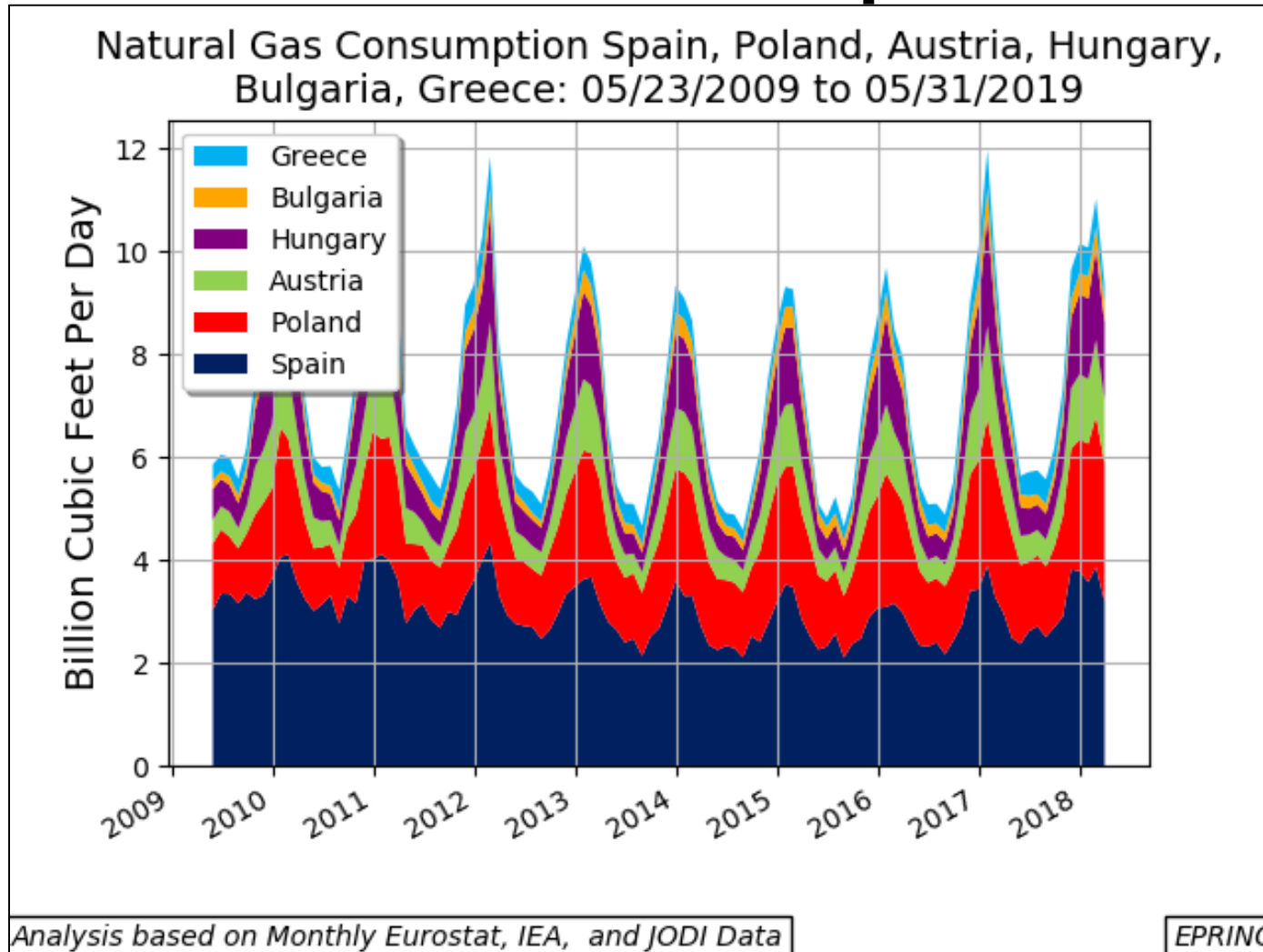


Select View: EU + Turkey NG Consumption ...



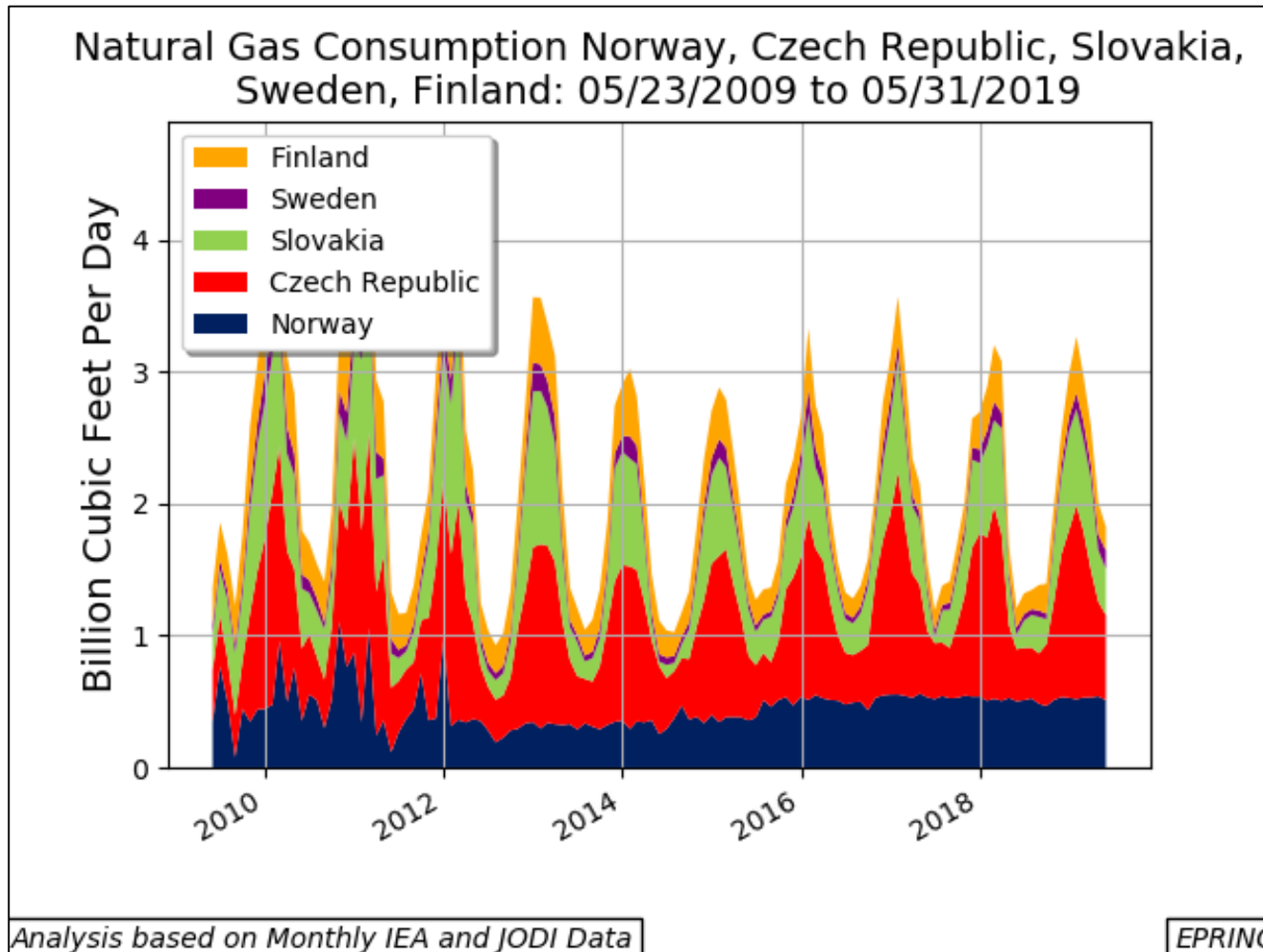
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Select View: EU NG Consumption ...



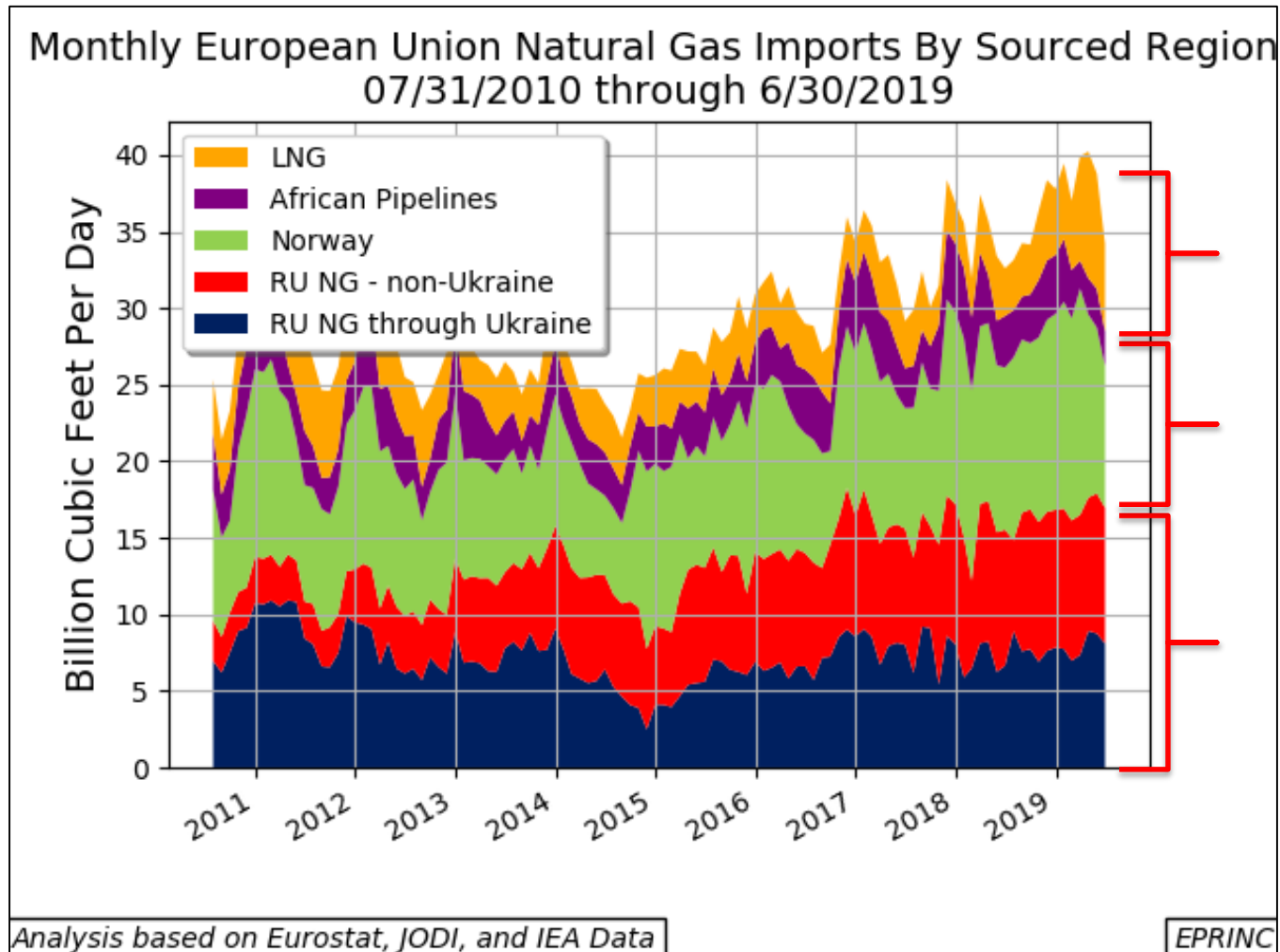
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Select View: EU + Norway NG Consumption ...



EU Natural Gas Imports

Imports and Norway key to balancing EU ...



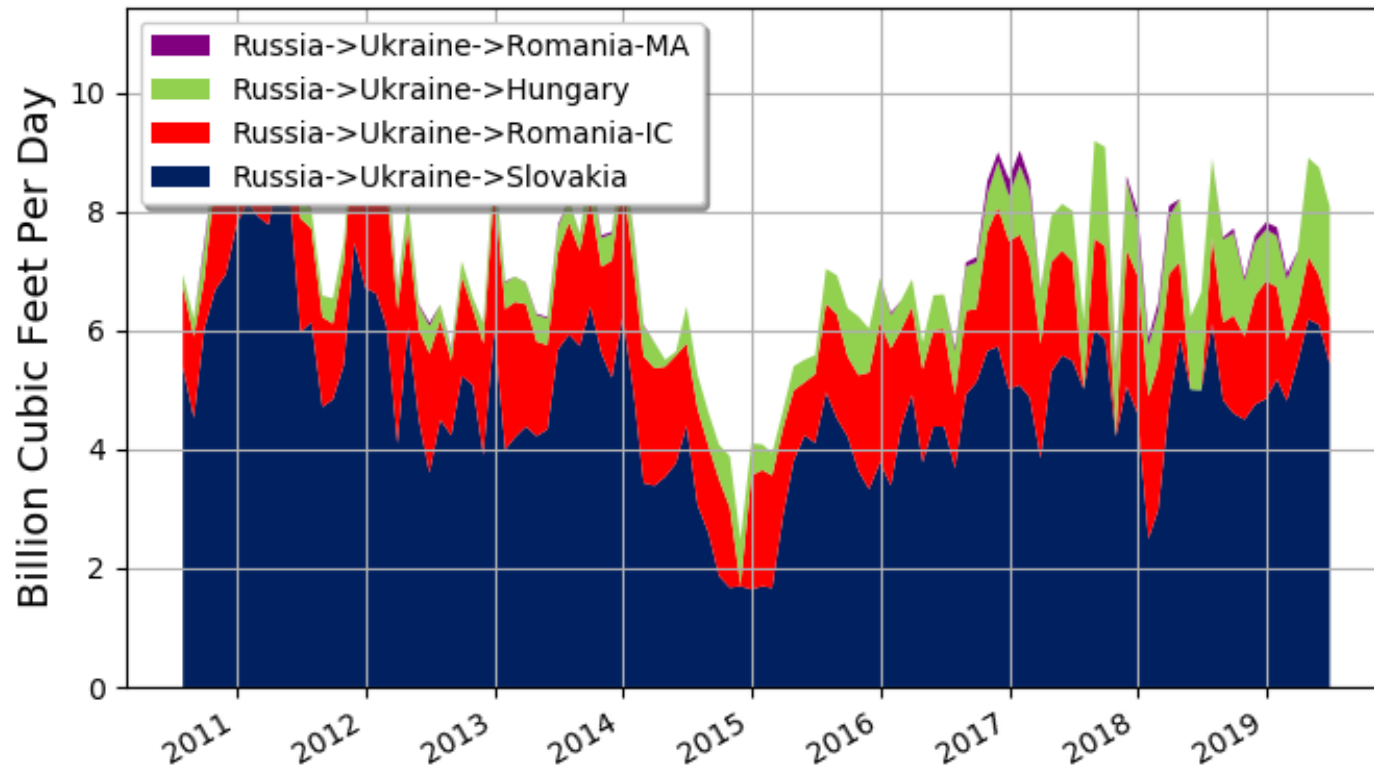
Afr NG + LNG @ ~27% of EU Imports

NO NG @ ~30% of EU Imports

RU NG @ ~43% of EU Imports

UA transit of RU NG stable except for 2015 ..

Monthly European Union Natural Gas Imports Sourced From Russia Through Ukraine: 07/31/2010 through 6/30/2019

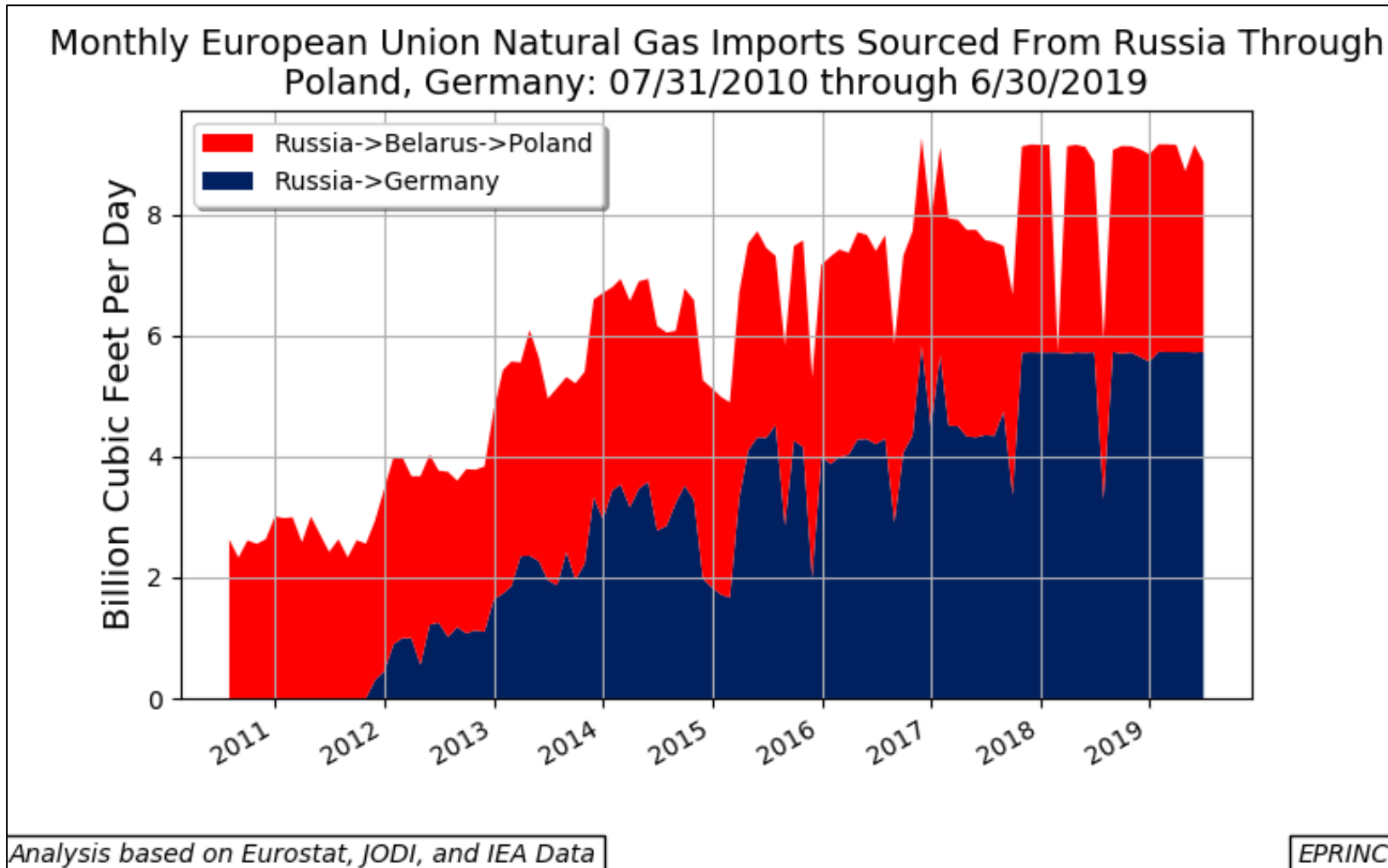


Analysis based on Eurostat, JODI, and IEA Data

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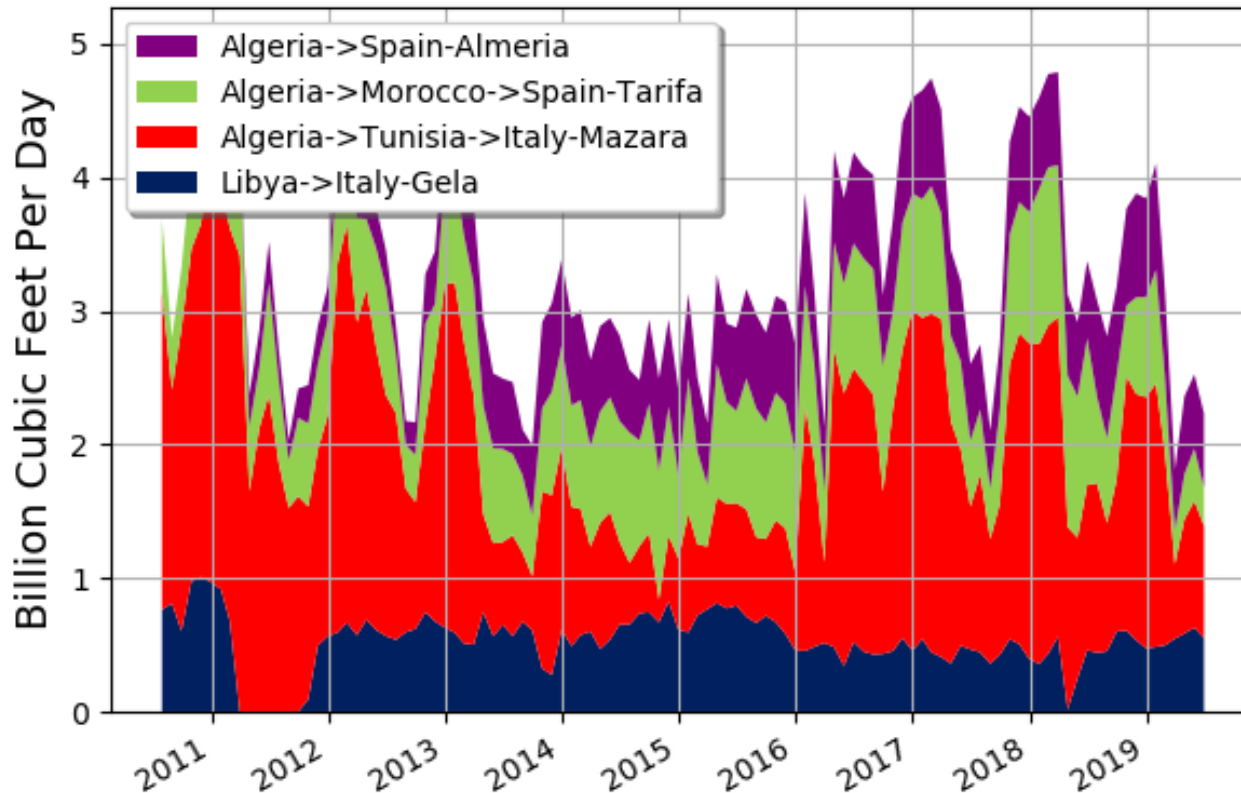
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Belarus & DE transit of RU NG increasing ...



Algeria/Libya NG volumes show seasonality

Monthly European Union Natural Gas Imports Sourced From Africa:
 07/31/2010 through 6/30/2019

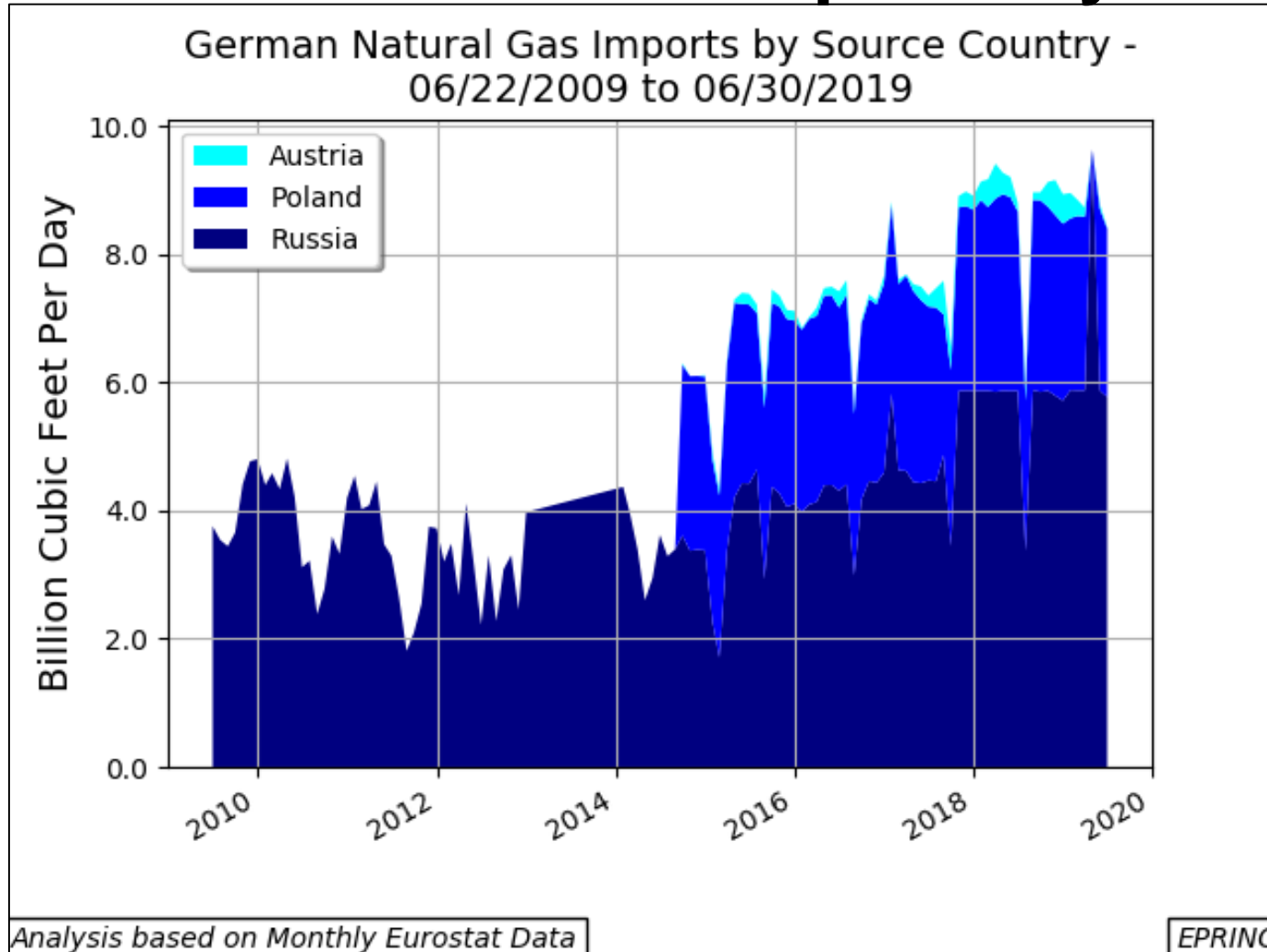


Analysis based on Eurostat, JODI, and IEA Data

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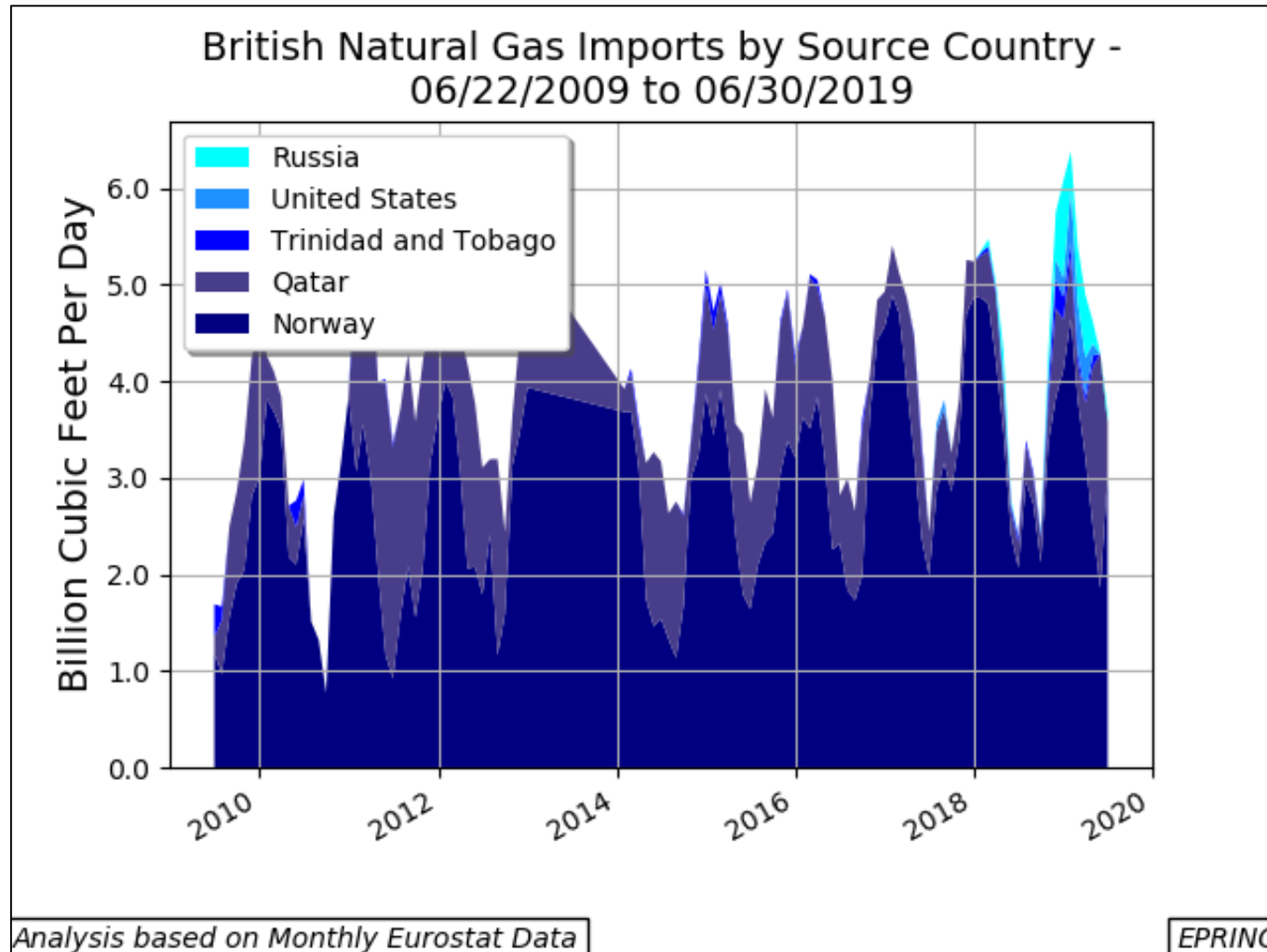
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Key EU Economies – NG Imports by source



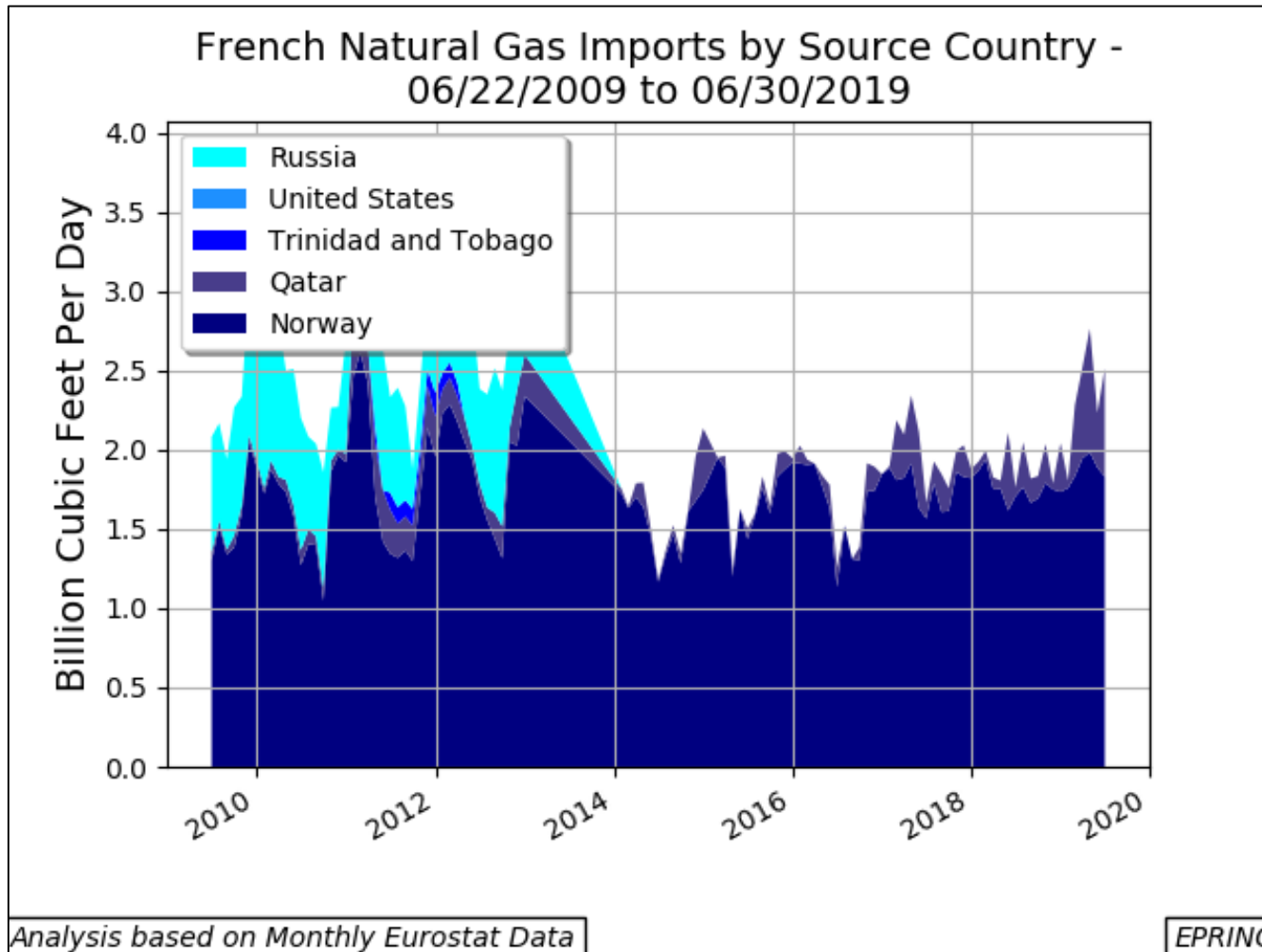
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Key EU Economies – NG Imports by source



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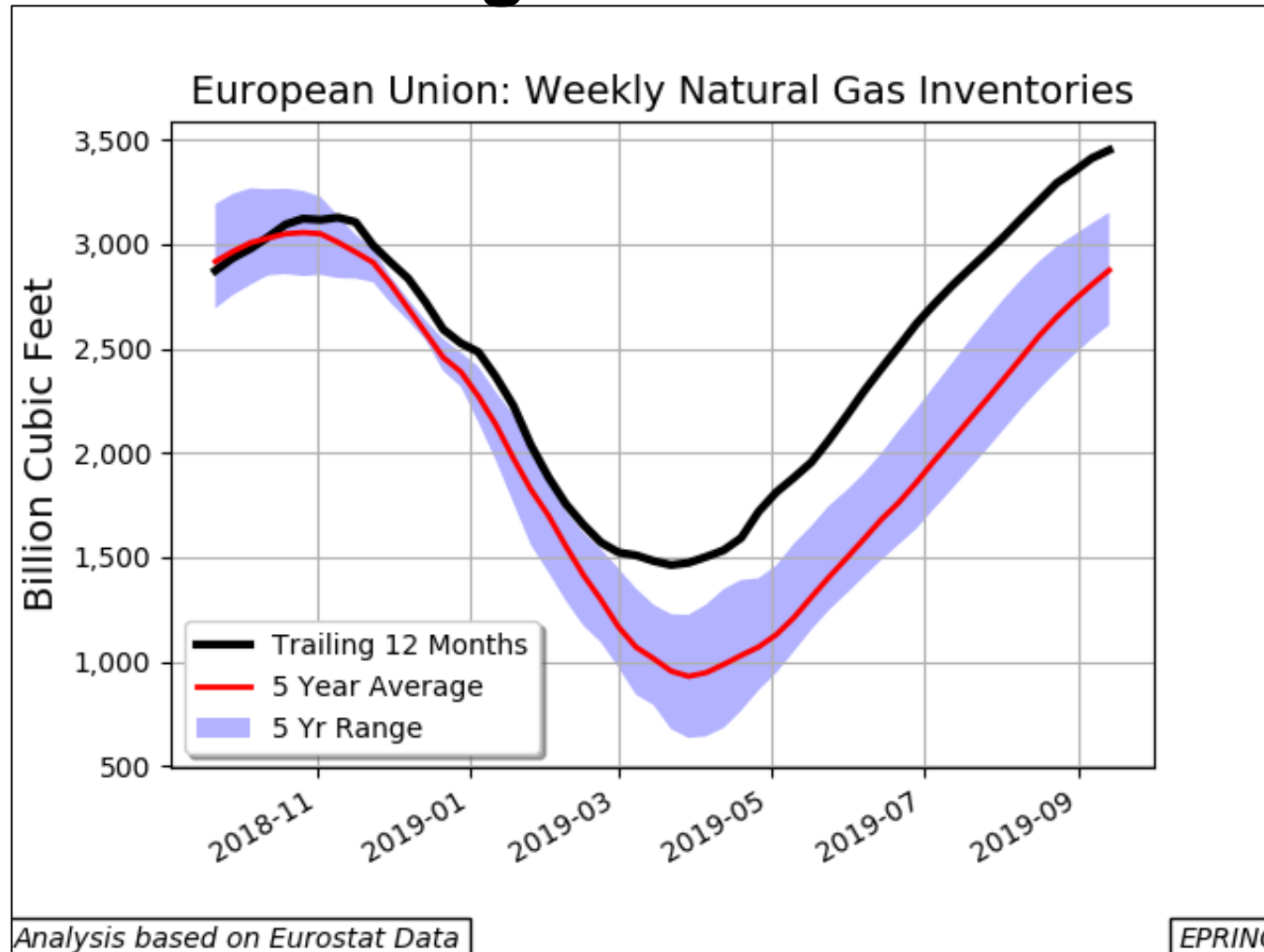
Key EU Economies – NG Imports by source



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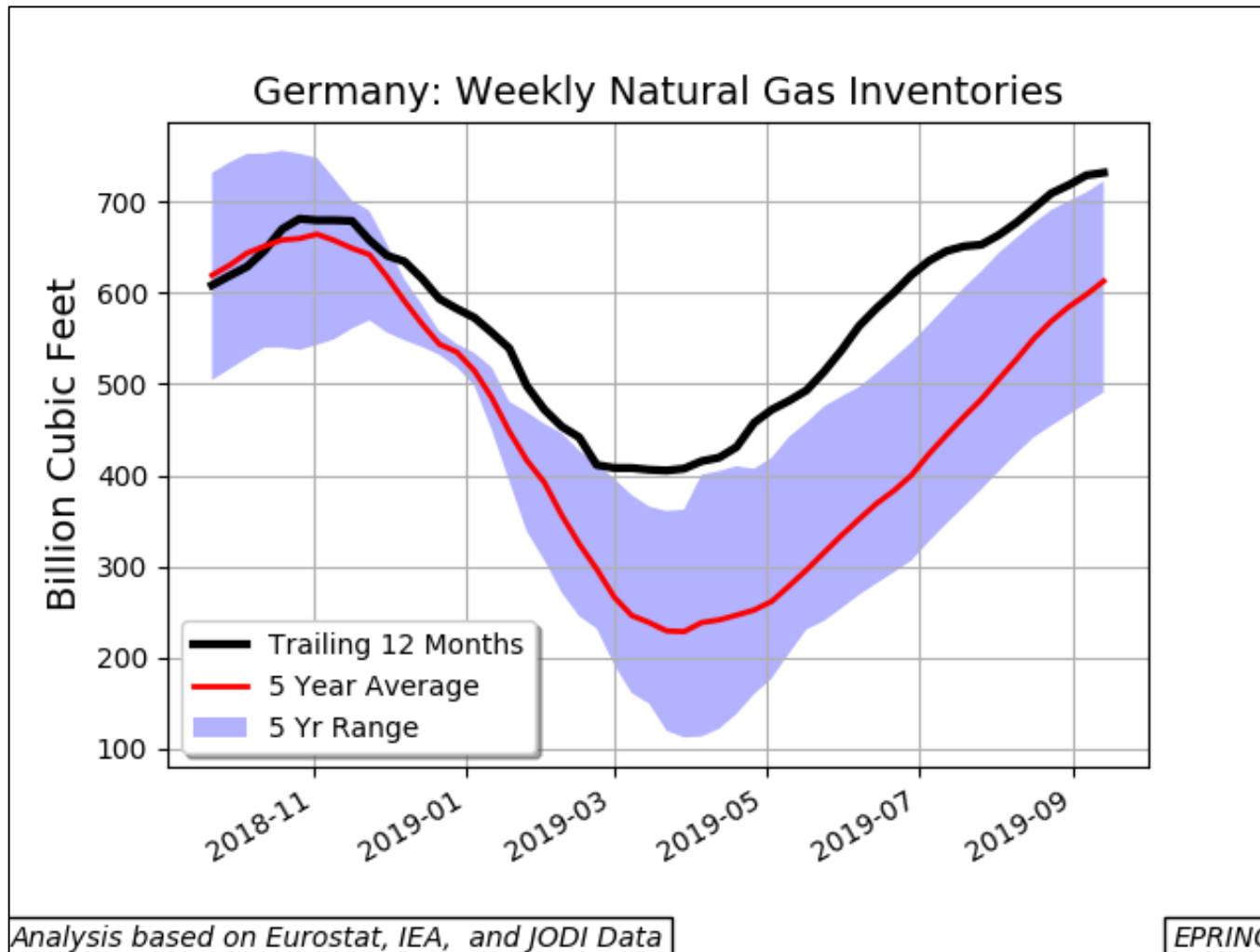
EU Natural Gas Inventories (+ Ukraine)

Total EU NG storage above trend ...

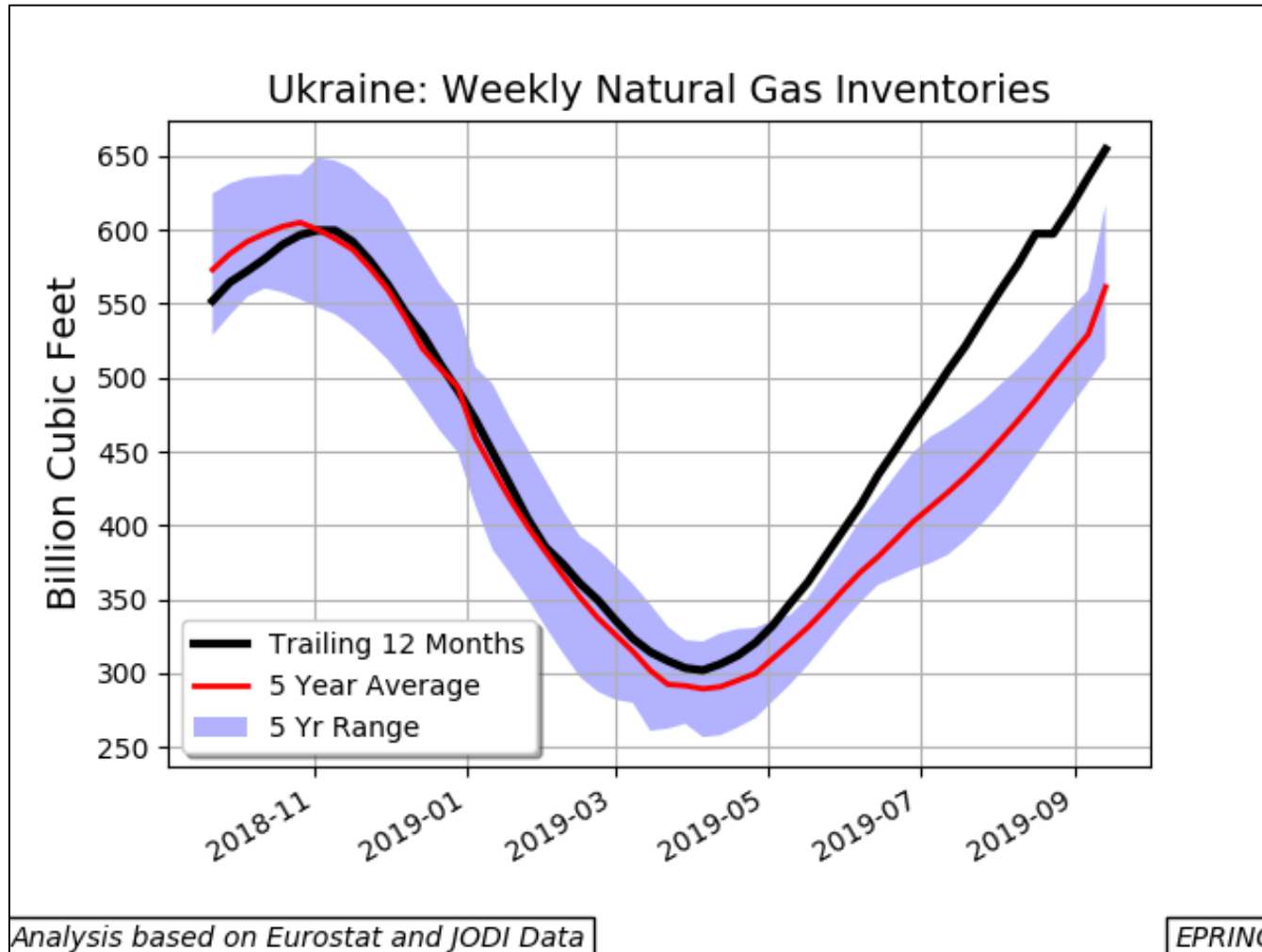


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So too, Germany's ...



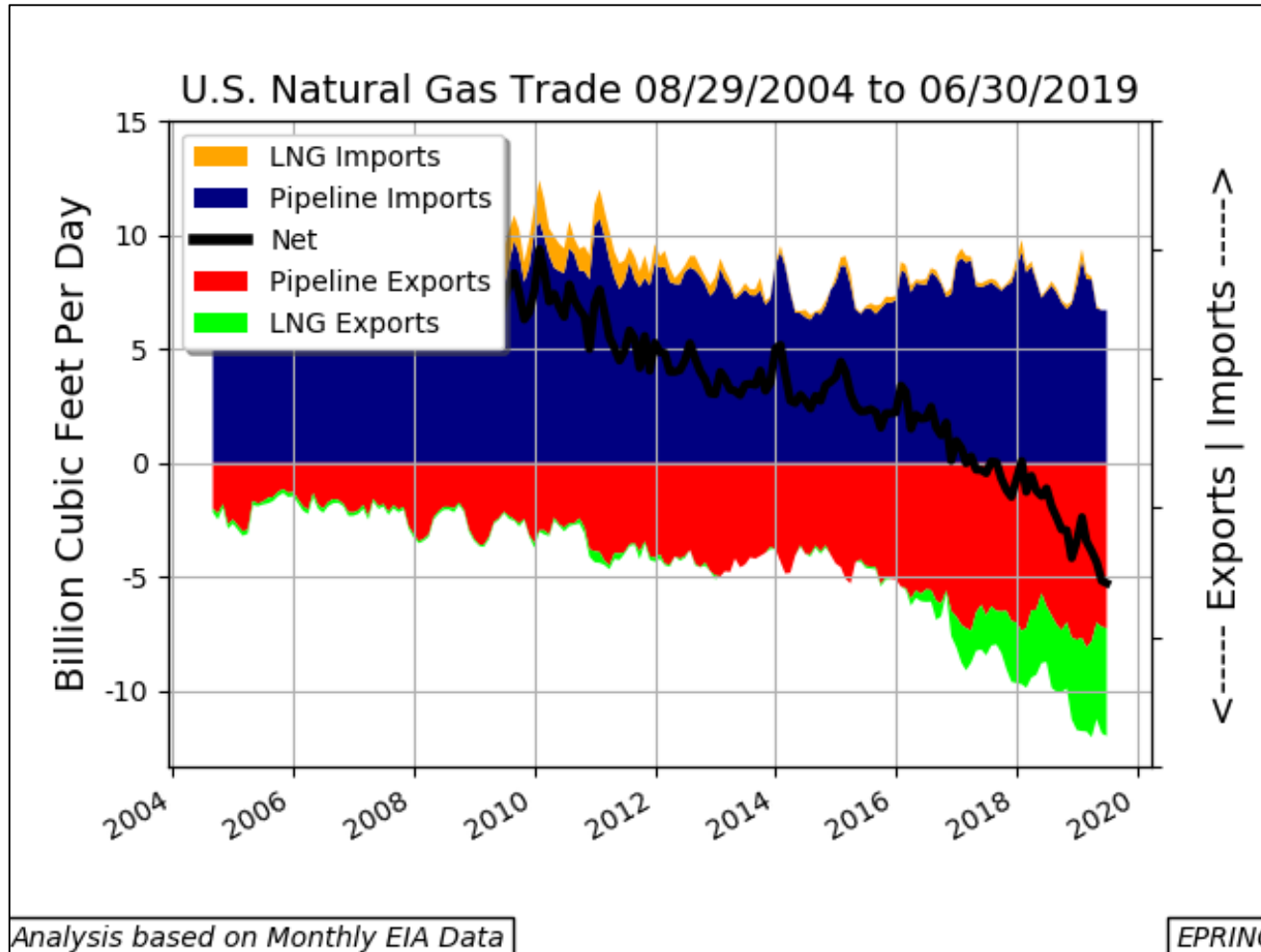
Ukraine's even more so ...



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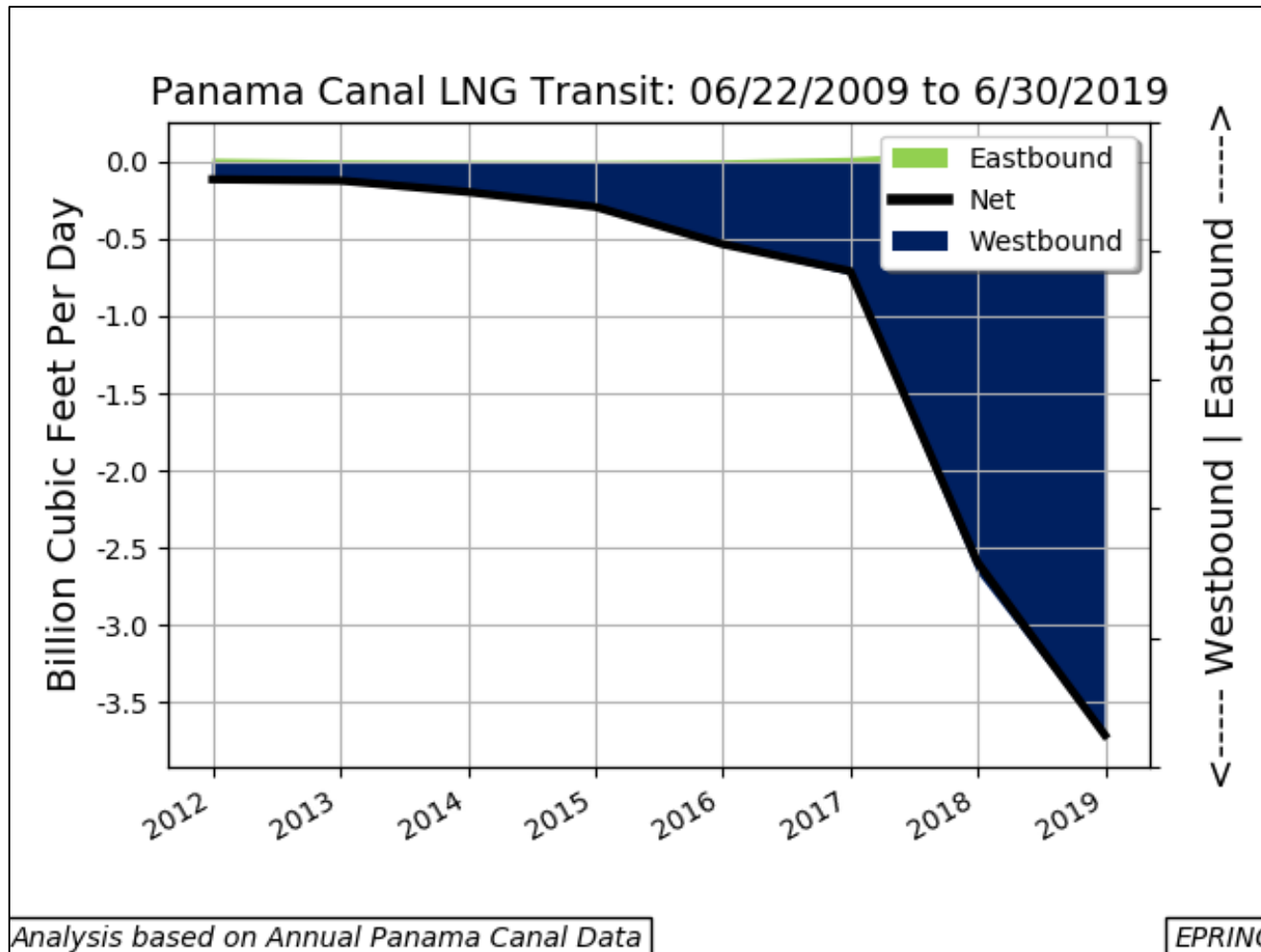
Select View of Natural Gas Trends Elsewhere

US NG Trade now export-positive ...



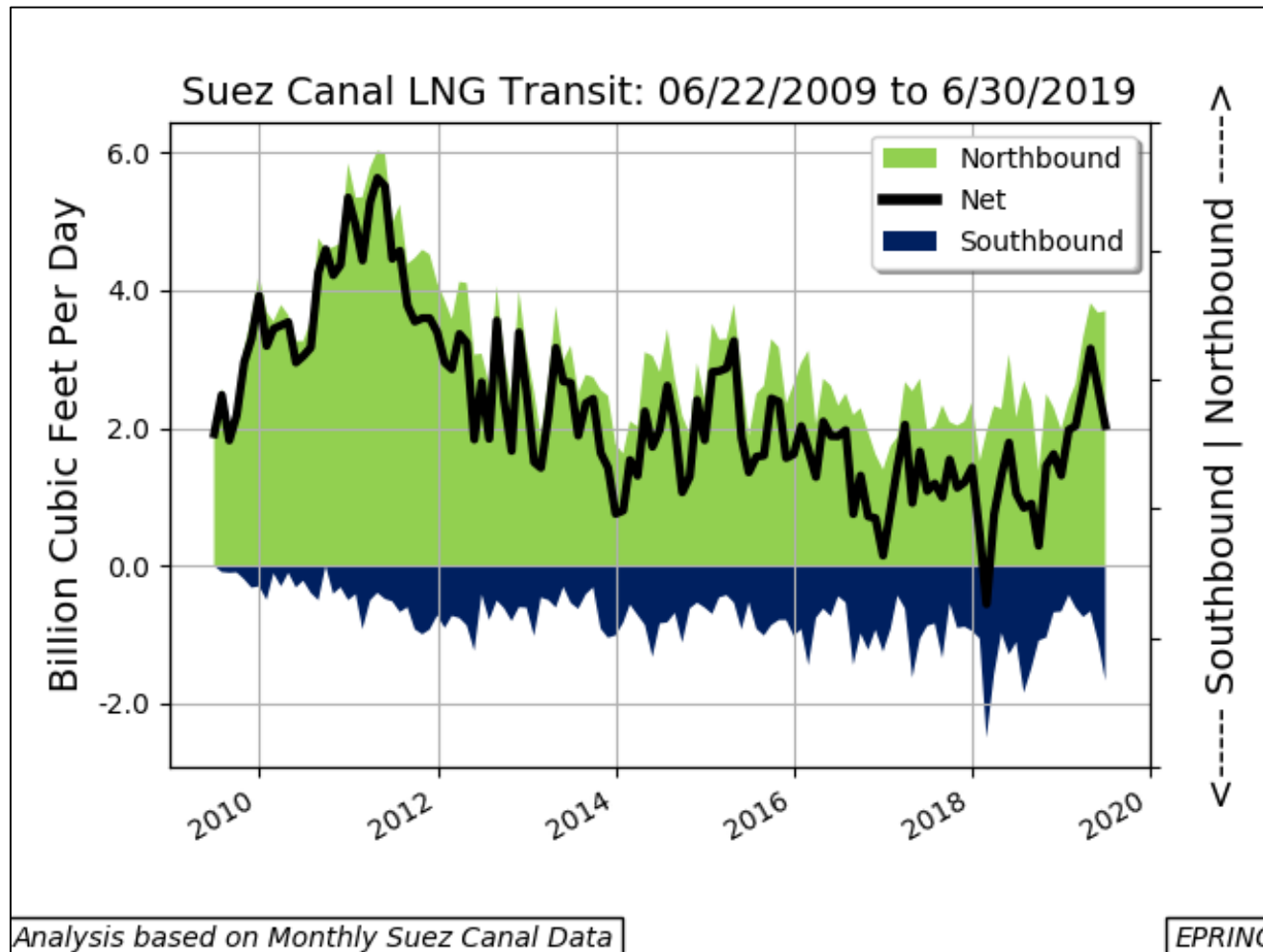
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US LNG exports major part of Panama traffic

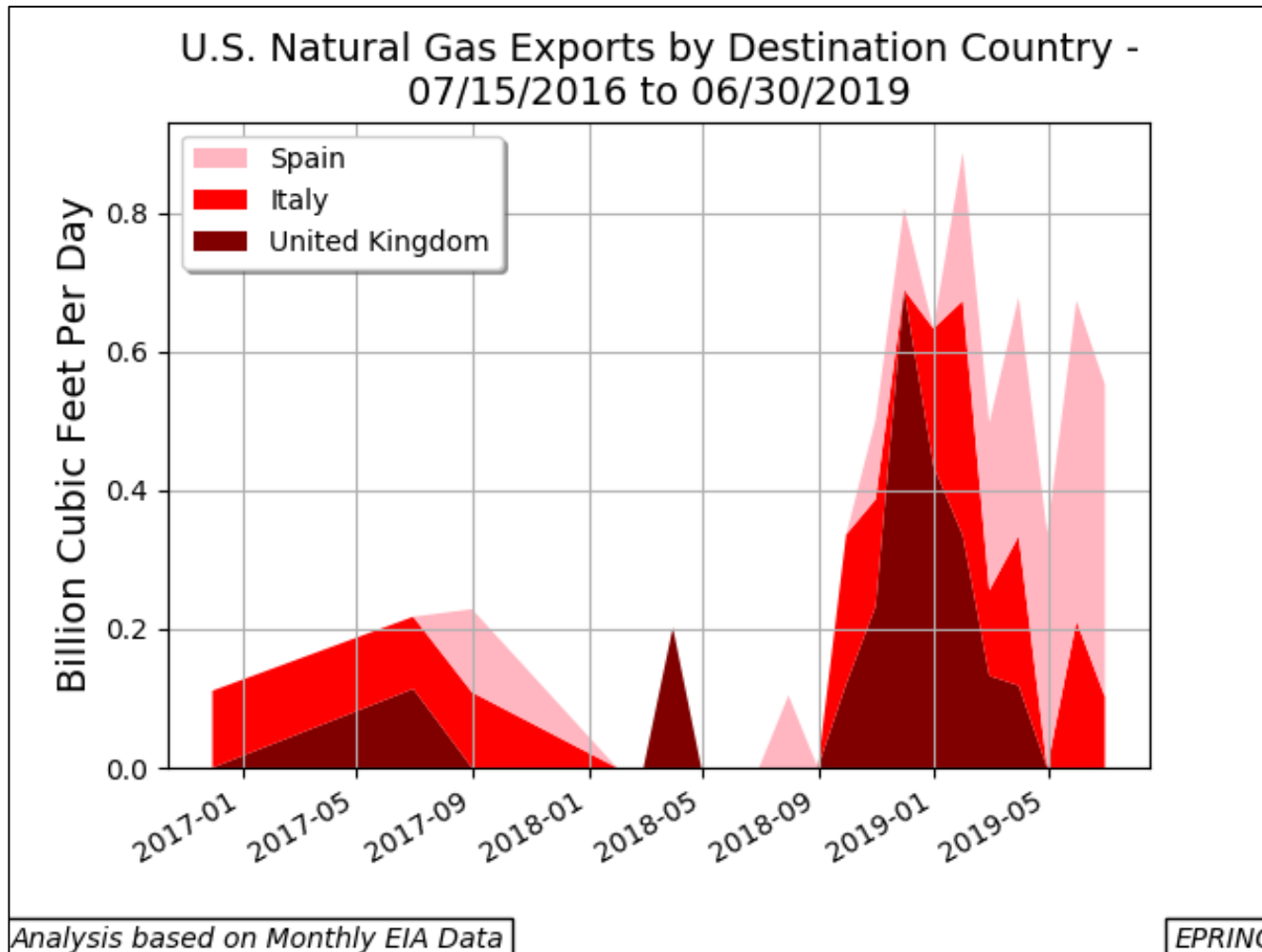


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Suez EU-bound LNG has decreased ...



Some US LNG EU-bound ...



Thank you!

Questions?



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