



# The Role of U.S. Shale Gas in Trade Wars amid COVID-19: Comparing U.S. Pressures Against Nord Stream 2 in Europe and On Demands on LNG Sales to Asia

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# U.S. Pressures on LNG Purchases



United States President Donald Trump at the Cameron LNG's gas terminal in Hackberry, Louisiana in May 2019.

Trump is keen to see the U.S. conquer the global market for LNG, and is opposed to Nord Stream 2.

*"We're protecting Germany from Russia, and Russia is getting billions and billions of dollars in money from Germany,"* Trump said in June 2019.

He argues the pipeline makes Berlin "a hostage of Russia."

The U.S. Congress is threatening companies working on the pipeline project with sanctions.

*Der Spiegel*

*November 14, 2019*

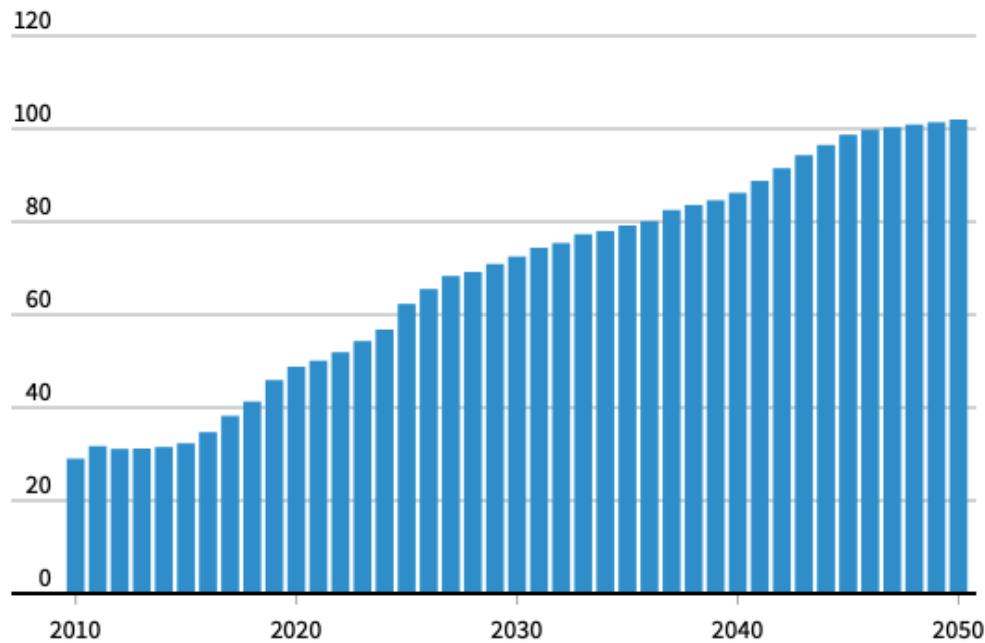
Foto: Evan Vucci/ AP

# LNG share of world natural gas trade projected to rise

Liquefied Natural Gas (LNG) usage expected to rise as China and India boost imports

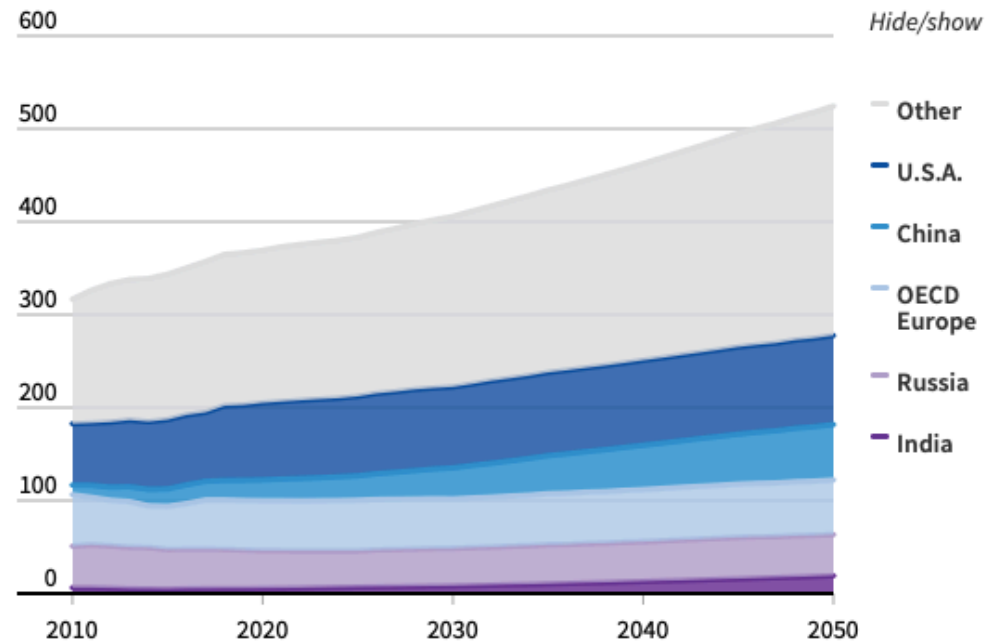
## FORECASTED GLOBAL LNG GROWTH

In billion cubic feet per day (bcfd)



## FORECASTED GLOBAL NATURAL GAS GROWTH

In billion cubic feet per day (bcfd)



Sources: U.S. Energy Information Administration; International Group of Liquefied Natural Gas Importers; Reuters  
By Ashlyn Still | REUTERS GRAPHICS

<https://tmsnrt.rs/2WQleS4>

## US LNG exports by destination January-May 2020

### May regional US exports

Total: 182.5 Bcf

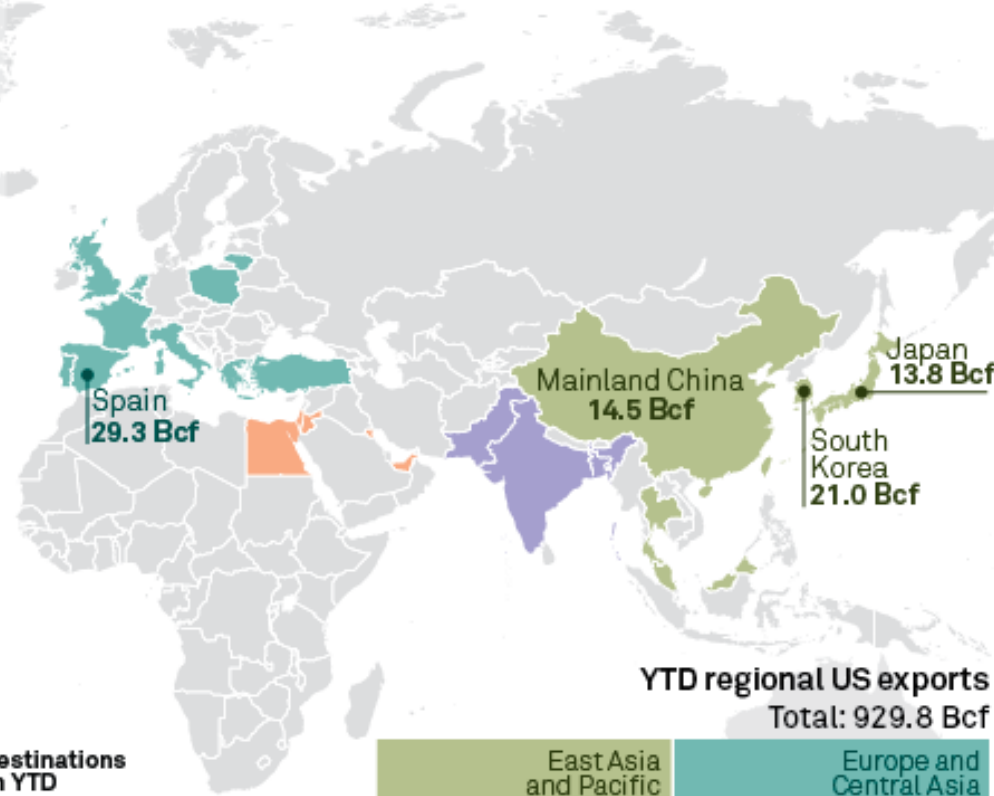
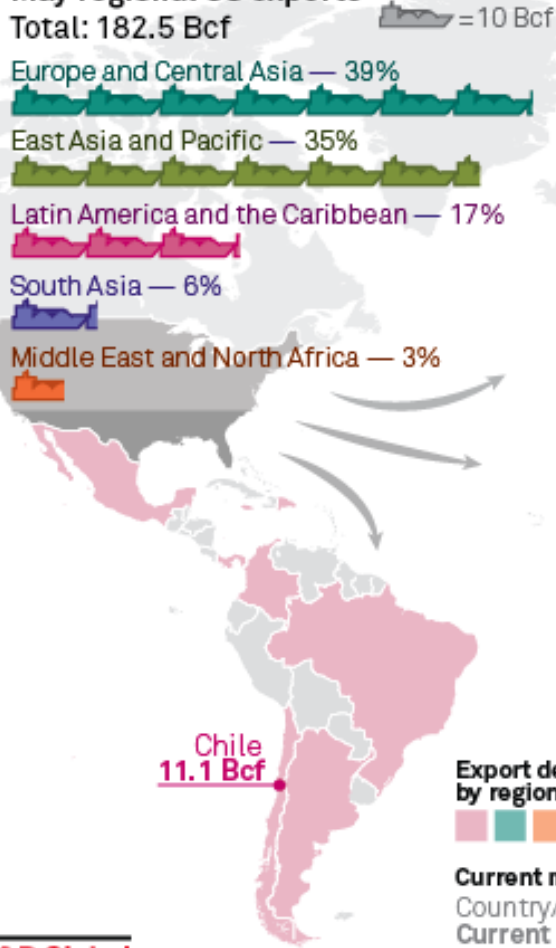
Europe and Central Asia — 39%

East Asia and Pacific — 35%

Latin America and the Caribbean — 17%

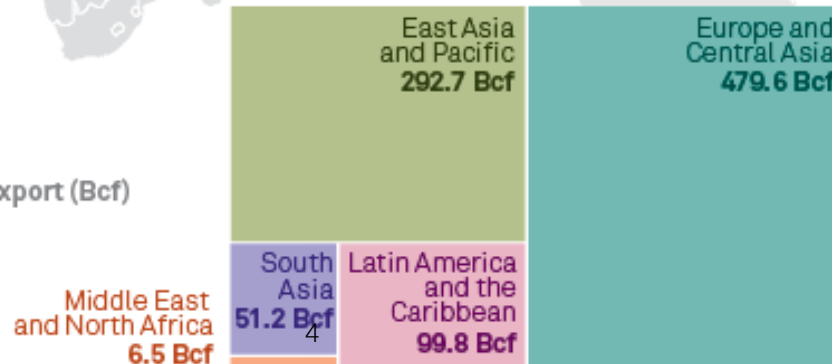
South Asia — 6%

Middle East and North Africa — 3%



### YTD regional US exports

Total: 929.8 Bcf



1. COVID-19 Impact
2. Relations with U.S.
3. Alternative options

**S&P Global**  
Market Intelligence

Data compiled July 15, 2020.  
Map credit: Elizabeth Thomas  
Source: U.S. Department of Energy

# Comparing U.S. Pressures on LNG

## Across the Pacific: Asian Customers

1. Pressures received: Direct demands, trade agreements, review of demands and sanctions on China - tech (semiconductors, 5G), military troop reduction as option
2. Highlights: Cost-competitiveness compared to alternatives (Qatar, Australia)

## Across the Atlantic: (potential) European Customers (Nord Stream 2 users)

1. Pressures received: Indirect rhetoric, joint statement, confirmed military troop reduction, sanctions on Russia
2. Efforts within the U.S. domestic politics to stop the Nord Stream 2 project

**What determines country responses  
to U.S. Shale Gas Purchase Pressures?**

# Components to Country Responses

1. Form of U.S. Pressures: Trade Agreements
2. Cost: Price Competitiveness of the Supplier
3. Geographical Location
4. Political Risk: Variance in geopolitical settings and diplomatic relations
5. Vulnerability: Variance in energy policy/energy mix



# U.S.-EU Joint Statement & U.S.-China Trade Deal

July 25, 2018



President Donald Trump and European Commission President Jean-Claude Juncker deliver a joint statement on trade in the Rose Garden of the White House in Washington, D.C.

Win McNamee/Getty Images

January 15, 2020



United States President Donald Trump stands with Chinese Vice Premier Liu He after signing “phase one” of the U.S.-China trade agreement in the East Room of the White House in Washington, D.C. Foto: Kevin Lamarque/Reuters



# U.S.-Japan Trade Deal

September 25, 2020



President Donald Trump shakes hands with Japanese Economy Minister Toshimitsu Motegi and Japanese PM Shinzo Abe greets U.S. Trade Representative Robert Lighthizer after announcement of a preliminary trade pact, in Biarritz, France, Aug. 25, 2019. Photo: Reuters



Japanese Prime Minister Shinzo Abe and U.S. President Donald Trump signed a joint statement on their trade deal on the sidelines of the United Nations General Assembly. Photo: Reuters

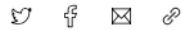
Nord Stream 2 Troubles

## An Uncertain Future for the German-Russian Pipeline

Threats of sanctions from the U.S. have put a stop to the construction of the Nord Stream 2 natural gas pipeline from Russia to Germany. The multibillion-euro project is now at risk, and leading German politicians are not amused.

By Markus Becker, Frank Dohmen, Andreas Flammang, Peter Müller, Ralf Neukirch, René Pfister, Jan Puhl, Christoph Schult, Gerald Traufetter, Severin Weiland und Sabrina Winter

28.08.2020, 18.23 Uhr



**U.S. President Donald Trump and German Chancellor Angela Merkel at the United Nations in New York in 2019: "We can't accept that."**

Foto: Guido Bergmann / DPA

Navalny Poisoning

## Germany Debates Halting Contentious Russian Pipeline Project

Leading politicians in Germany from all mainstream parties are demanding that construction on the natural gas pipeline Nord Stream 2 be suspended as a result of the poisoning of Alexei Navalny. But Merkel's government is so far resisting such calls.

By Alexander Chernyshev, Matthias Gebauer, Christina Hebel, Valerie Höhne, Peter Müller, Marcel Rosenbach, Christoph Schult und Fidelius Schmid

04.09.2020, 20.34 Uhr

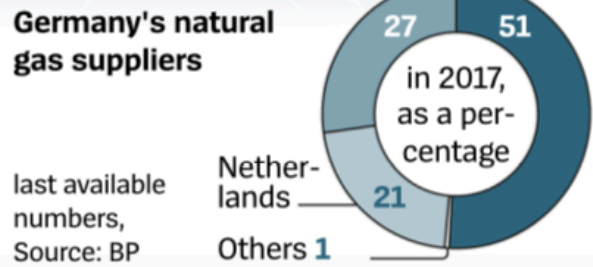
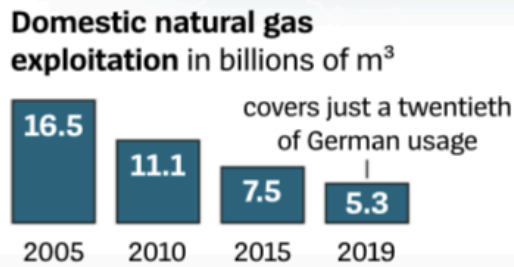
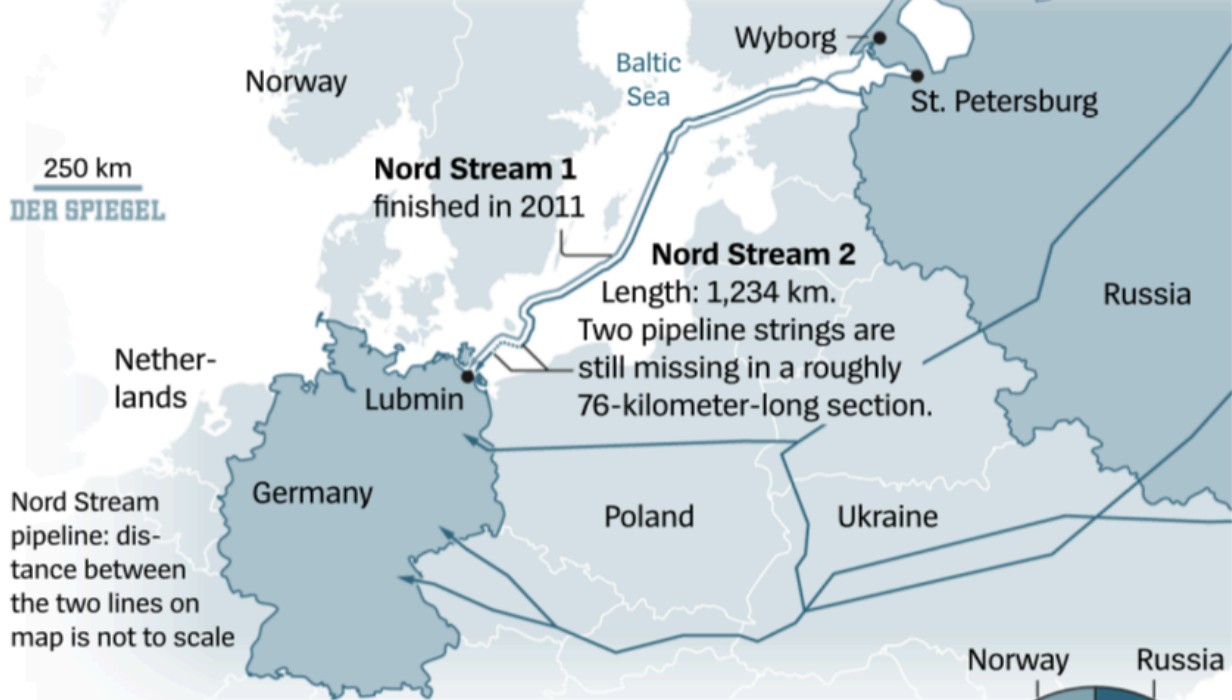


**Chancellor Merkel and President Putin in Moscow in January: "There are now very serious questions that only the Russian government can and must answer."** Foto: SERGEY GUNEEV / SPUTNIK / KREMLIN / EPA-EFE/ REX



# Pipeline Poker

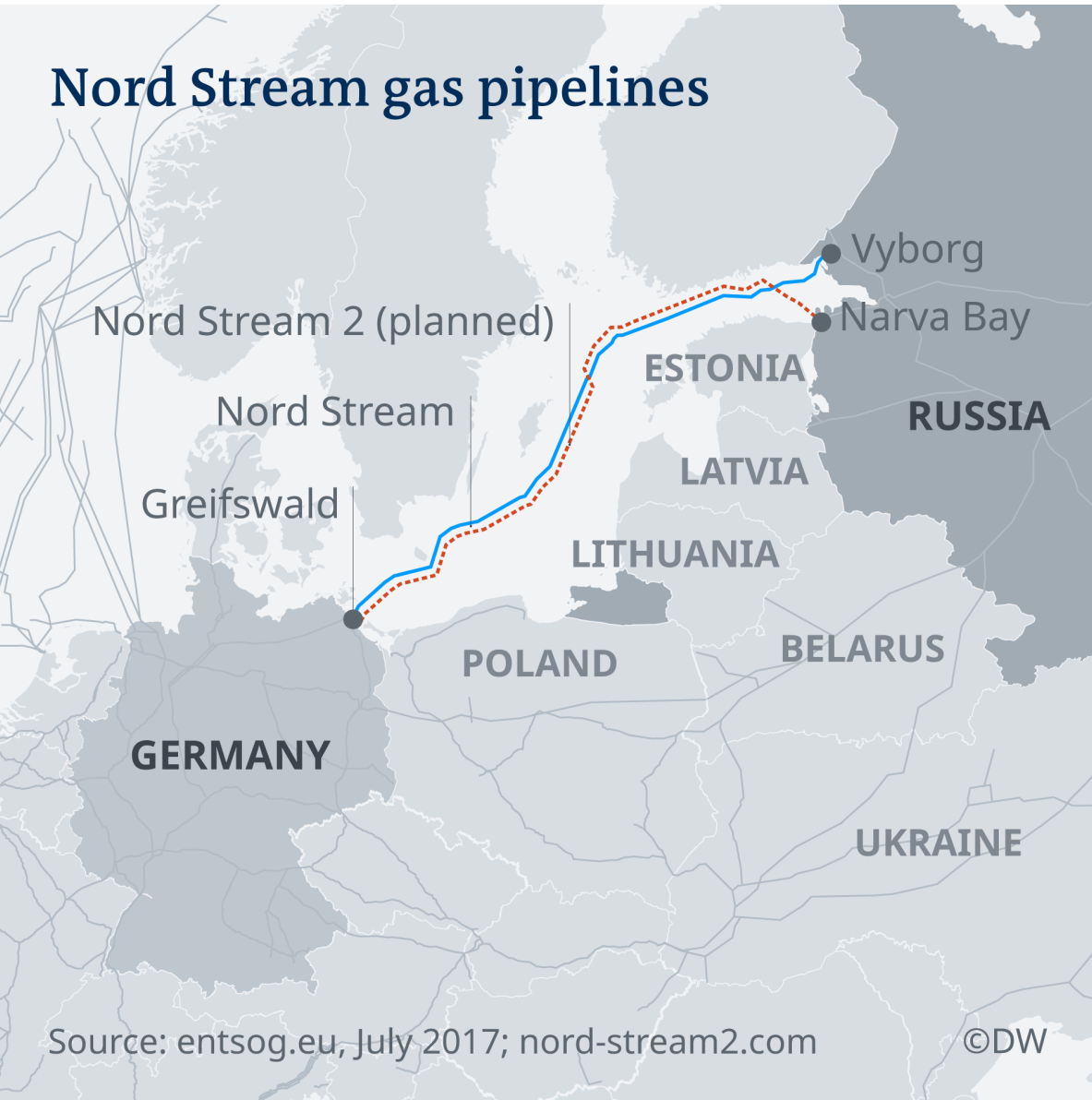
The most important pipelines for natural gas from Russia



**The landfall facility for the Nord Stream 2 pipeline in Lubmin in the eastern state of Mecklenburg-Western Pomerania in Germany. Only 294 kilometers of construction still remain until the project will be completed.** Foto: Paul Langrock/ DER SPIEGEL

**'Germany Debates Halting Contentious Russian Pipeline Project,' *Der Spiegel* International, September 4, 2020.**

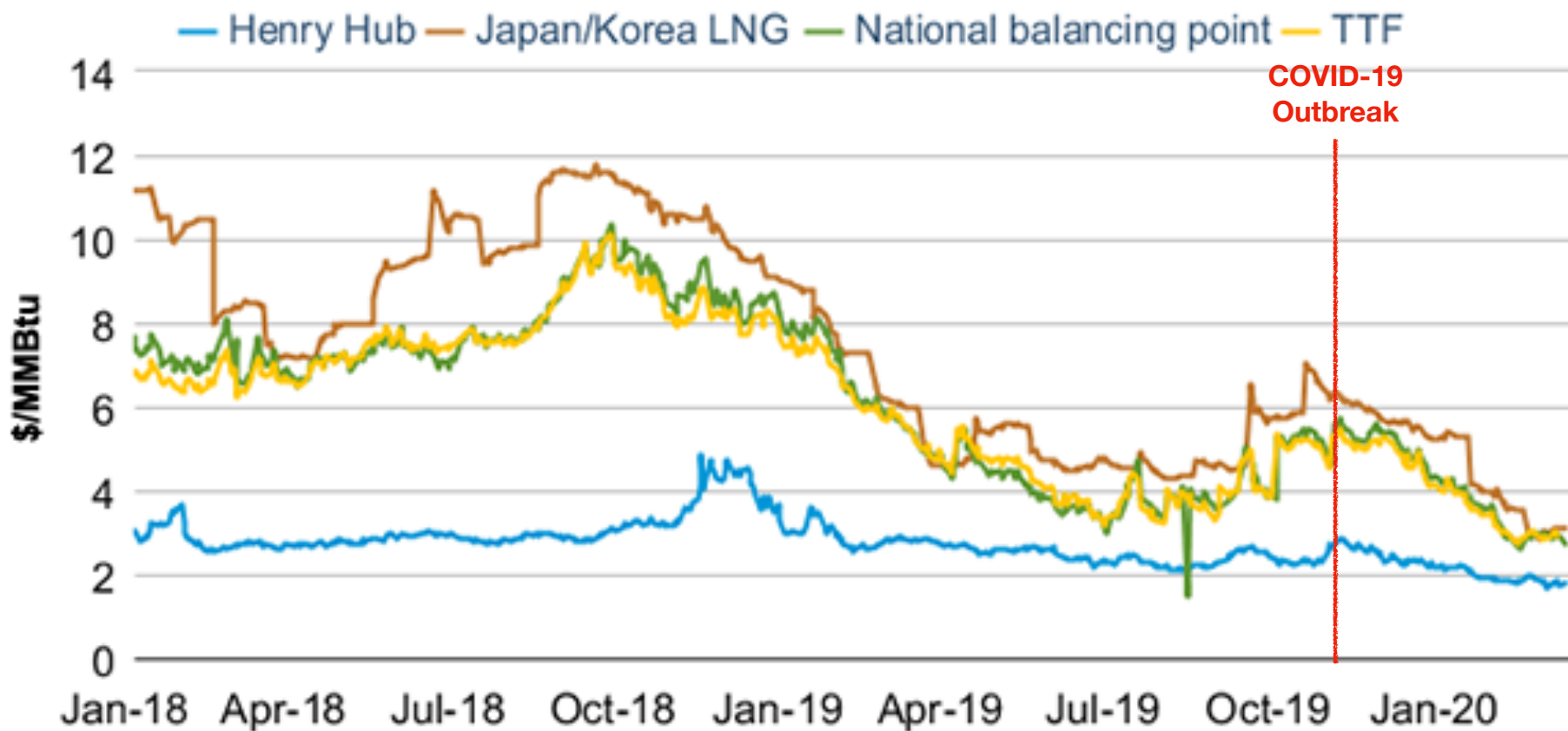
# Nord Stream gas pipelines



© picture-alliance/dpa/J. Büttner

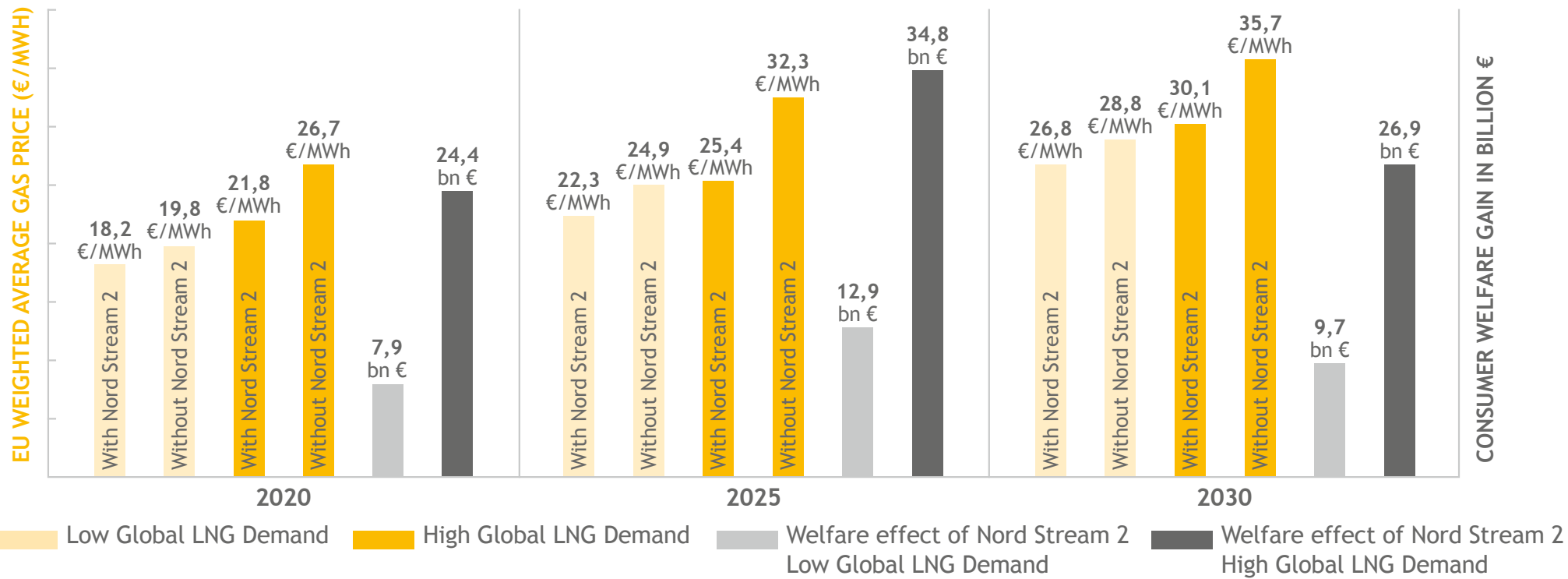


# International Natural Gas Prices



Source: EIA

# Impact of Nord Stream 2 on EU-28 Price Levels and Consumer Welfare



Source: ewi Energy Research & Scenarios GmbH, Germany (ewi ER&S – TIGER model)

By Dr. Harald Heckling and Florian Weiser



COUNTRY	PIPELINE NAME	OFFSHORE vs. ONSHORE	LENGTH (km)	DIAMETER (inches)	CAPACITY (bcma)	TOTAL COST €	COST € per 1 km	ESTIMATED COST* €	ESTIMATED COST* € per 1 km
Baltic Sea	NORD STREAM 1 (two lines)	offshore	1224	48 each line	27.5 each line	7.4 - 8.8 bln	3.4 mln / per line	4.1 - 5.3 bln	3.36 - 4.32 mln
Baltic Sea	NORD STREAM 2 (two lines)	offshore	1230	48 each line	27.5 each line	9.5 - 10.0 bln	3.86 mln / per line	4.1 - 5.3 bln	3.36 - 4.32 mln
Russia	GRYAZOVETS - VYBORG	onshore	917	56	55	4.5 bln	4.9 mln	1.8 - 2.31 bln	1.96 - 2.52 mln
Russia	GRYAZOVETS - UST-LUGA	onshore	920	56	55	3.2 bln	3.5 mln	1.8 - 2.32 bln	1.96 - 2.52 mln
Germany	NEL	onshore	440	56	20	1.0 bln	2.3 mln	0.86 - 1.10 bln	1.96 - 2.52 mln
Germany	OPAL	onshore	470	55	35	1.0 bln	2.1 mln	0.90 - 1.16 bln	1.92 - 2.47 mln
Germany	EUGAL**	onshore	480	56	55 - 35.4	3.1 - 4.0 bln	3.8 - 4.9 mln	1.63 - 2.1 bln / per line	1.96 - 2.52 mln / per line
Czechia	GAZELLE	onshore	166	56	33	400 mln	2.4 mln	325 - 418 mln	1.96 - 2.52 mln
Poland - Lithuania	GIPL Gas Interconnector	onshore	562	28	2.3	471 - 558 mln	0.84 - 0.99 mln	550 - 708 mln	0.98 - 1.26 mln
Poland - Slovakia	GIPS Gas Interconnector	onshore	164	39	4.7 - 5.7	269 mln	1.6 mln	224 - 288 mln	1.36 - 1.75 mln
Denmark - Poland	BALTIC PIPE (offshore only)	offshore	275	36	10	442 mln	1.6 mln	346 - 445 mln	1.26 - 1.62 mln

BLACK colour indicate existing projects, BLUE colour indicates projects planned and/or under construction, GREEN colour indicates estimated cost, RED colour indicates cost which doesnt match the results obtained by using the ratio

\* estimated cost based on the calculation of €35-45,000 per 1 inch per 1 km of pipeline

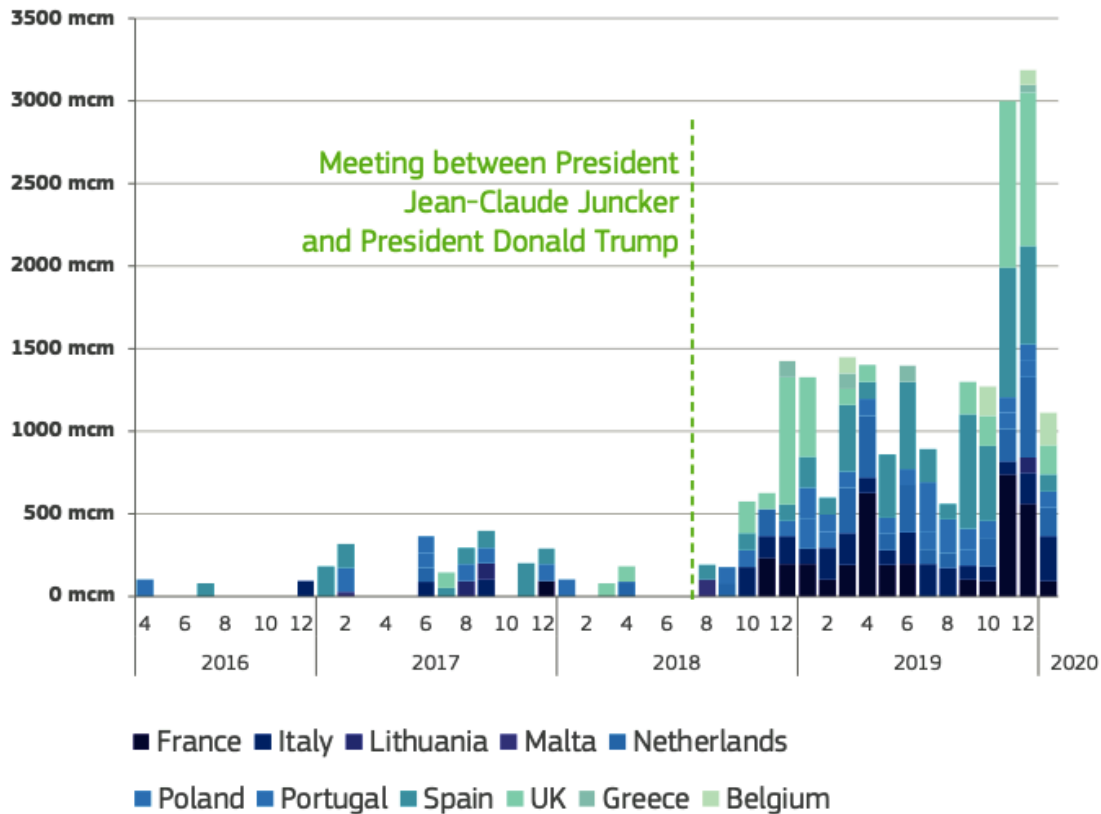
\*\* EUGAL gas pipeline in Germany, with two strings running in parallel as far as Weißbach, then one string to the Czech-German border, has different capacities at entry and exit points

#### ALTERNATIVE ROUTES

Russia - Latvia - Lithuania - Poland - Germany	ALTERNATIVE 1 Ust-Luga - Greifswald	onshore	1400	56	55	x	x	2.7 - 3.5 bln	1.96 - 2.52 mln
Russia - Belarus - Poland - Germany	ALTERNATIVE 2 Yamal - Europe route	onshore	2200	56	55	x	x	4.3 - 5.5 bln	1.96 - 2.52 mln
Russia - Belarus - Poland - Czechia - Austria	ALTERNATIVE 3 Gryazovets - Baumgarten	onshore	2350	56	55	x	x	4.6 - 5.9 bln	1.96 - 2.52 mln

Piotr Przybyło, THE REAL FINANCIAL COST OF NORD STREAM 2: economic sensitivity analysis of the alternatives to the offshore pipeline, Economy and Energy Programme, CASIMIR PULASKI FOUNDATION, Warsaw 2019.

# U.S. LNG Exports to the EU after the Trump-Juncker agreement (July 2018)



\* Data until 8 January 2020  
 Source: European Commission.

U.S. LNG Customers:

France  
 Italy  
 Lithuania  
 Malta  
 Netherlands  
 Poland  
 Portugal  
 Spain  
 UK  
 Greece  
 Belgium

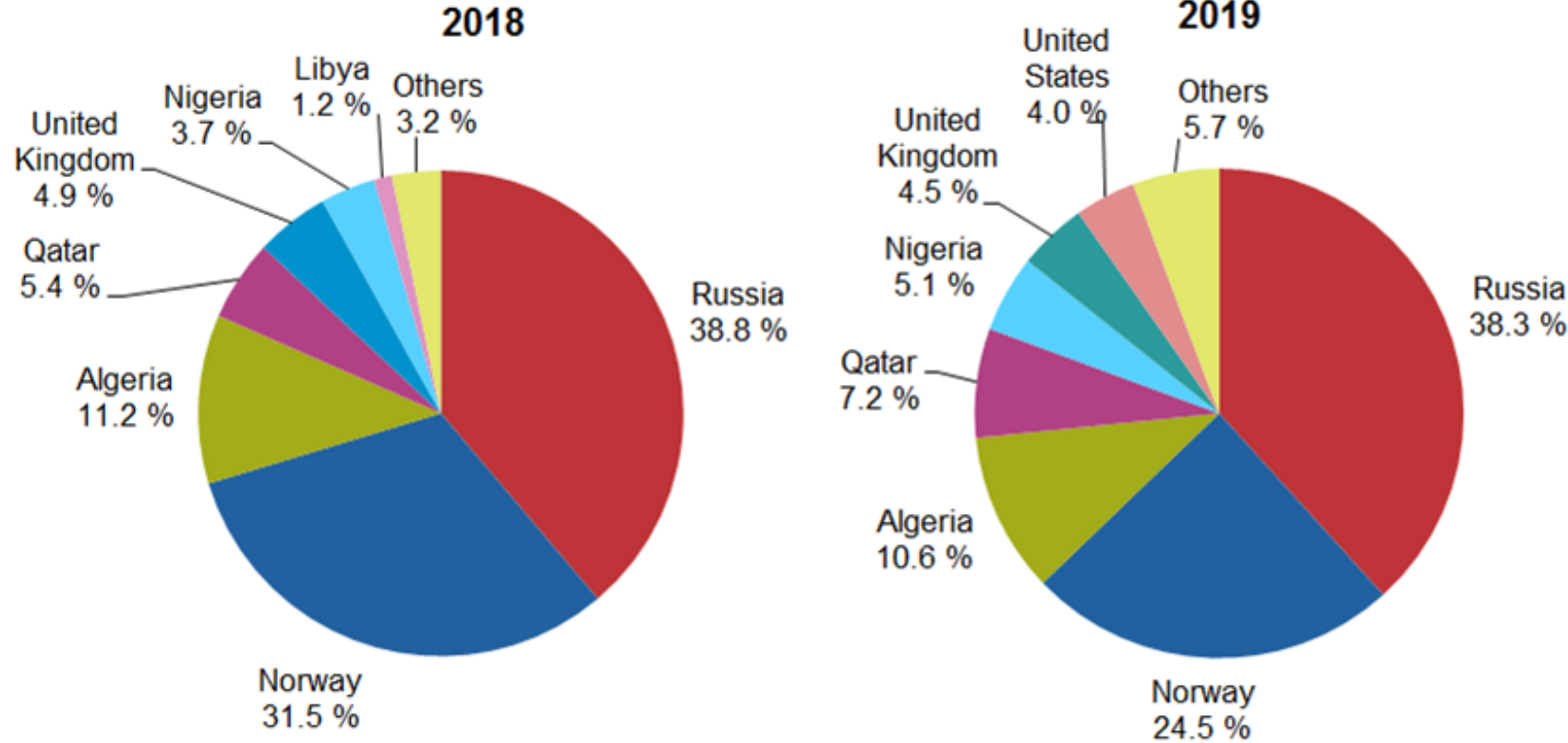
**Nord Stream 2 (Russian PNG) Potential Customers:**

**Germany**  
**Czech Republic**  
**Slovakia**  
**Austria**  
**Italy**

What to consider:  
 Geographical Location  
 Of Countries

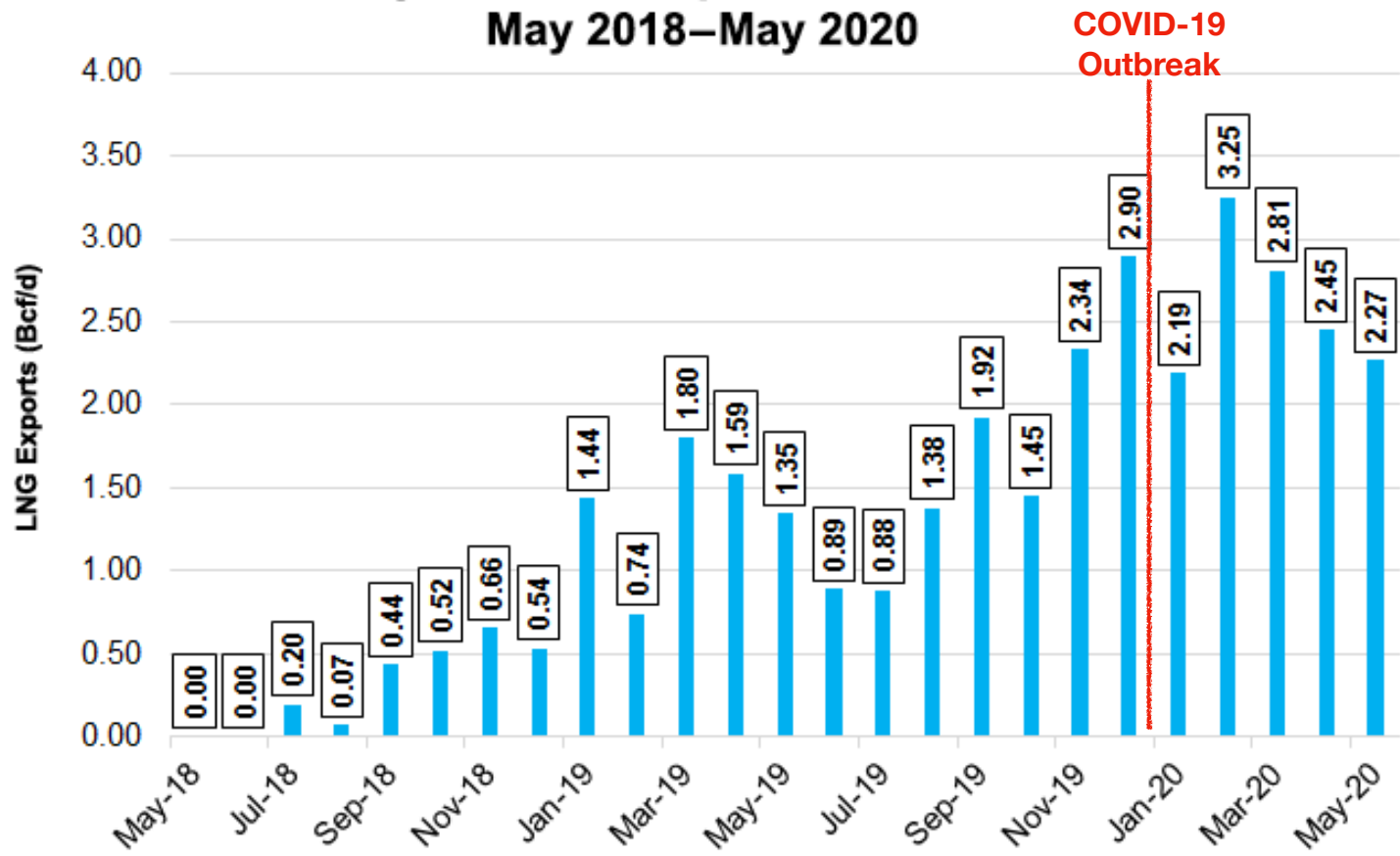
# Extra EU-27 imports of natural gas from main trading partners, 2018 and 2019

(share (%) of trade in value)



Source: Eurostat database (Comext) and Eurostat estimates

# Total Monthly U.S. LNG Exports to EU Member States May 2018–May 2020



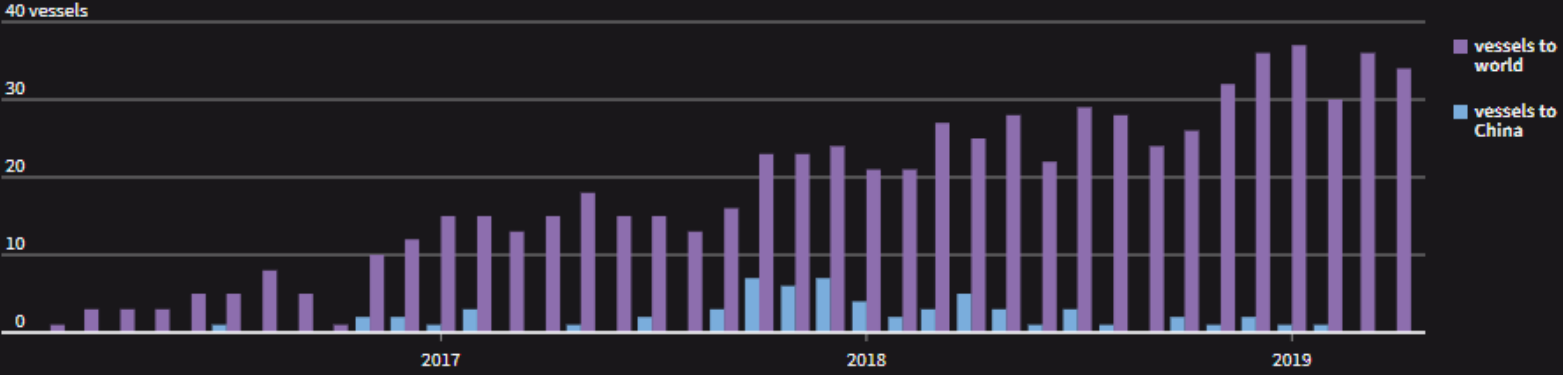
**Note:** EU member states include Belgium, France, Greece, Italy, Lithuania, Malta, Netherlands, Poland, Portugal, and Spain.

Source: EIA, NGI calculations

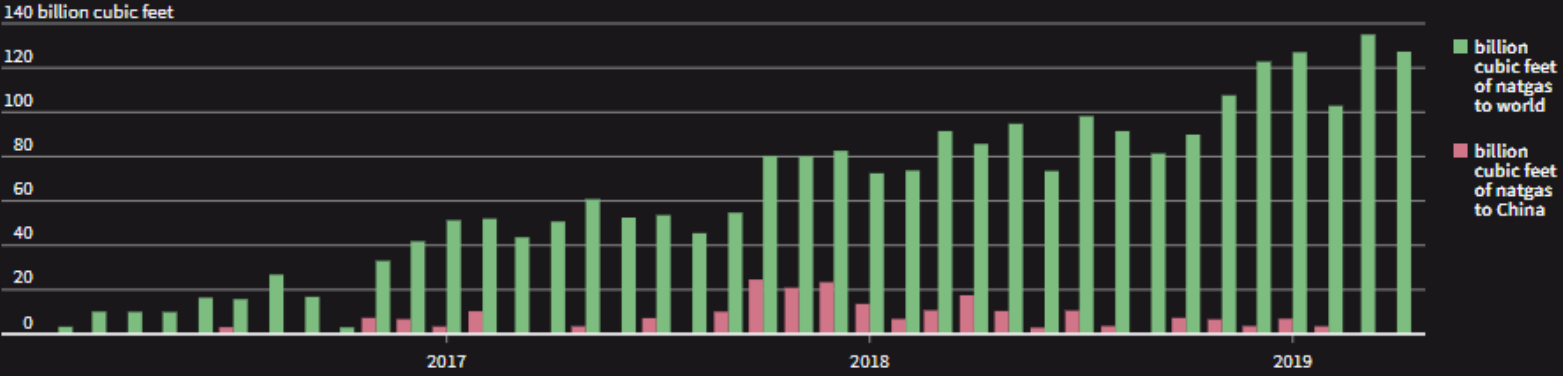
# U.S. LNG shipments to China fall through trade war

The number of vessels carrying liquefied natural gas (LNG) to China from the United States has decreased since the second half of 2018 even as overall U.S. shipments hit new records.

## VESSELS CARRYING LNG



## LNG SHIPMENTS



Source: U.S. Department of Energy; Refinitiv Eikon ship tracking data  
Stephanie Kelly | REUTERS GRAPHICS

# Responses to U.S. Pressures on LNG

## Across the Pacific: Asian Customers

1. Signed trade agreements, cooperation with the U.S. on countering China on tech (i.e., supply ban on chips)
2. Diversification of sources based on cost
3. LNG carrier preferred (in tandem with production of carriers)
4. Mitigating political risks by energy purchase
5. Energy mix and industrial policy (nuclear phase-out policies, renewable energy)

## Across the Atlantic: European Customers (NordStream 2)

1. Signed joint statement, compliance with U.S. sanctions on Russia and considerations on elevating sanctions on Russia
2. Nord Stream 2 outweighs U.S. offers in price competition - debates ongoing within Europe after Navalny poisoning
3. U.S. option (LNG carrier) more popular among Western Europe, PNG across Northern, Central and Eastern Europe
4. Resisting U.S. pressures on various issues, particularly on data and digital trade
5. Paris Agreement pushing for renewable energy



Thank you.

有り難うございました。

Comments, Questions:

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