

THE TUMULTUOUS 2022:

# HOW HAS RUSSIA'S AGGRESSION ON UKRAINE IMPACTED THE 3 SEAS AND REST OF EU-27 COUNTRIES?

A 2022 VERSUS 2021 COMPARISON

SOURCE: OWN CALCULATIONS BASED ON EUROSTAT DATA



**3SEAS EUROPE**

NEWS FROM CENTRAL EUROPE AND THE 3SEAS INITIATIVE





# HIGH-LEVEL SNAPSHOT

The Three Seas Initiative comprises of 12 EU countries:  
Austria, Bulgaria, Croatia, Czechia, Estonia, Hungary,  
Latvia, Lithuania, Poland, Romania, Slovakia, Slovenia.

Together, the Three Seas countries make up:

25% of the EU's population

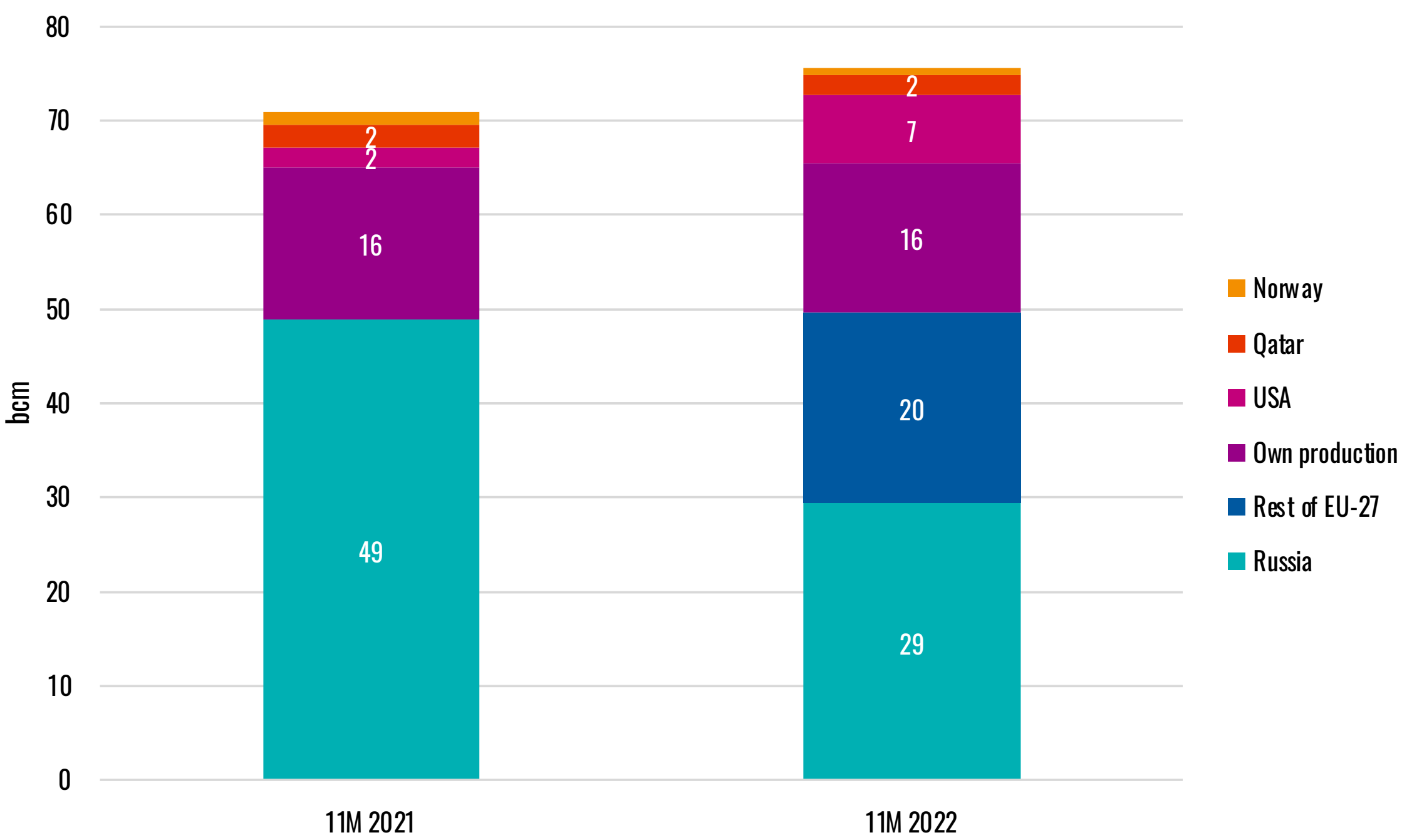
14% of the EU's GDP

23% of the EU's energy consumption

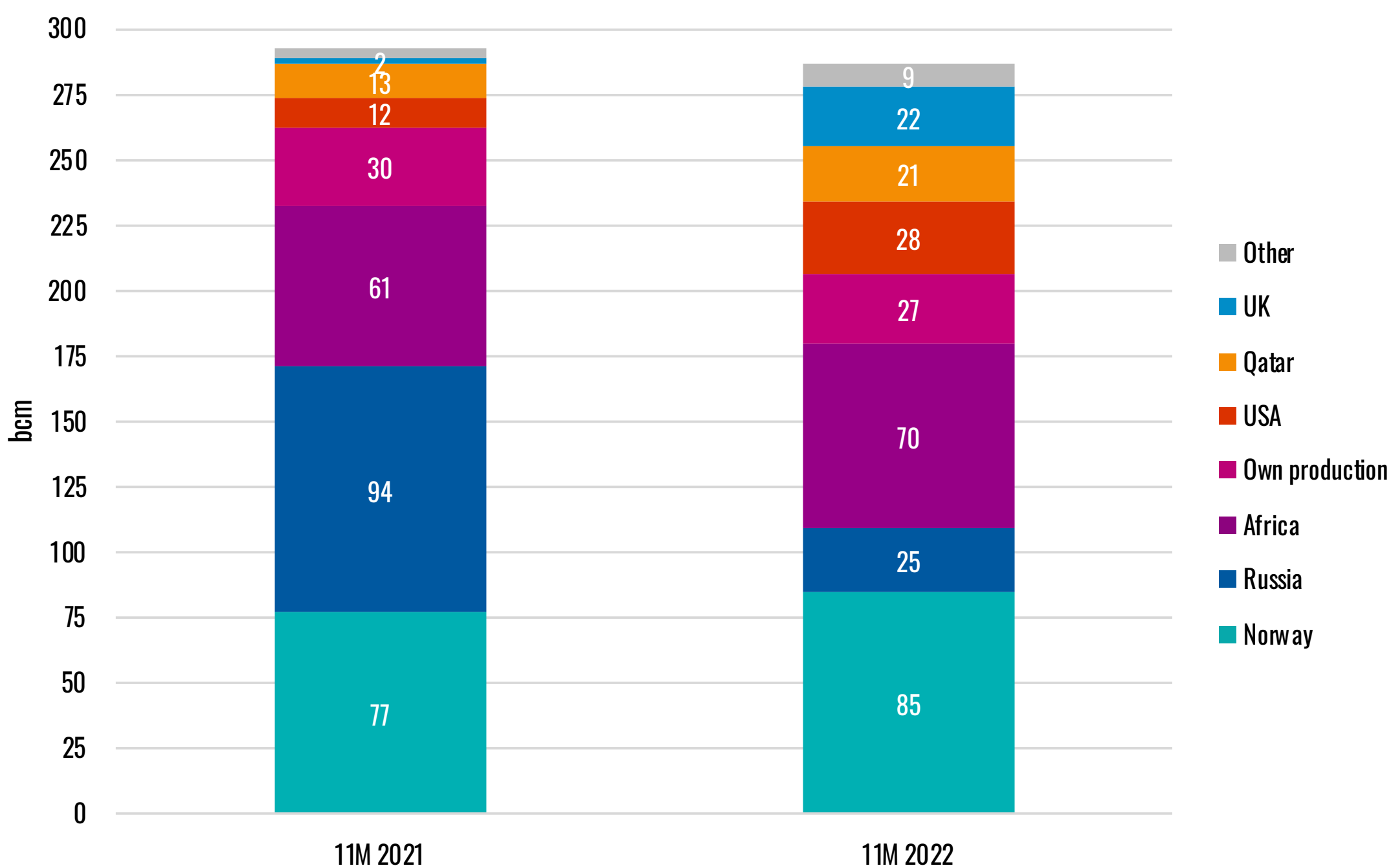


# NATURAL GAS SUPPLY BY GEOGRAPHY (11 MONTHS OF 2022 VS 11 MONTHS OF 2021)

Natural gas supply by geography: 3 Seas



Natural gas supply by geography: Rest of EU-27



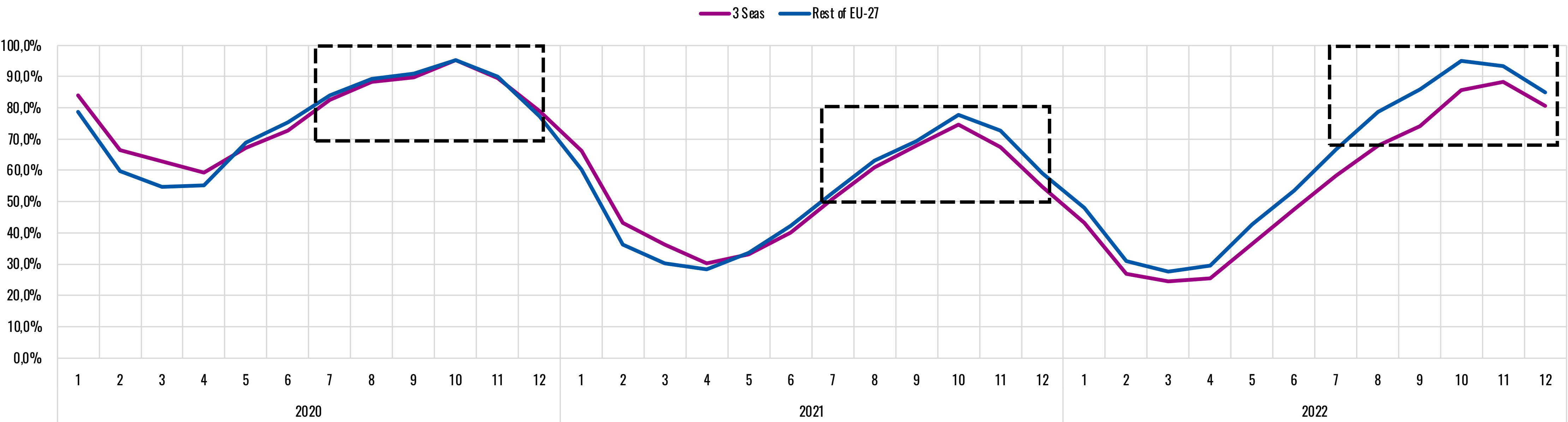
Russia's aggression on Ukraine had a major impact on the natural gas market in the European Union.

Volumes of Russian-origin natural gas delivered to the 3 Seas and the Rest of EU-27 countries dropped by 40% and 74% respectively.

Lost supply from Russia was replenished by the Rest of EU-27 countries with imports from and from Norway, Africa, USA and the UK. In the case of the 3 Seas countries, lost Russian supply was replenished by deliveries from the Rest of EU-27 countries.

# NATURAL GAS STORAGE FILL LEVELS

Monthly average natural gas storage fill levels



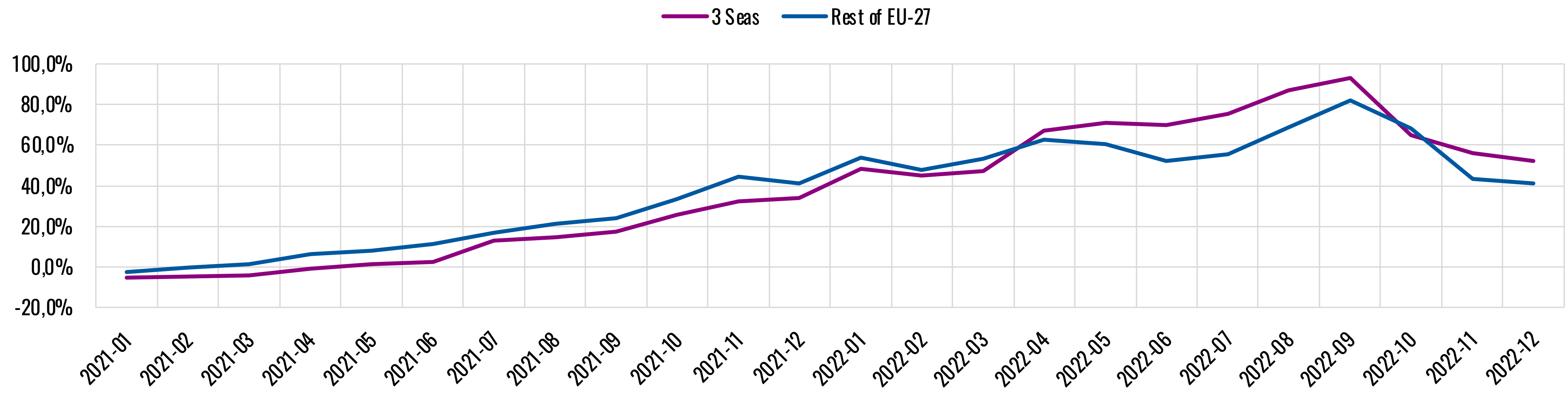
Natural gas supply shocks started in Q3 and Q4 2021, when Russia cut deliveries to storage facilities in certain 3 Seas countries (Czech Republic, Austria) and Rest of EU-27 countries (Germany, Netherlands).

Storage levels in Q3 and Q4 2021 witnessed an unprecedented drop compared to Q3 and Q4 2020.

In Q3 and Q4 2022, storage fill levels recovered and returned to values similar to the ones from Q3 and Q4 2020.

# HICP INFLATION: NATURAL GAS (ANNUAL RATE OF CHANGE)

HICP inflation: natural gas

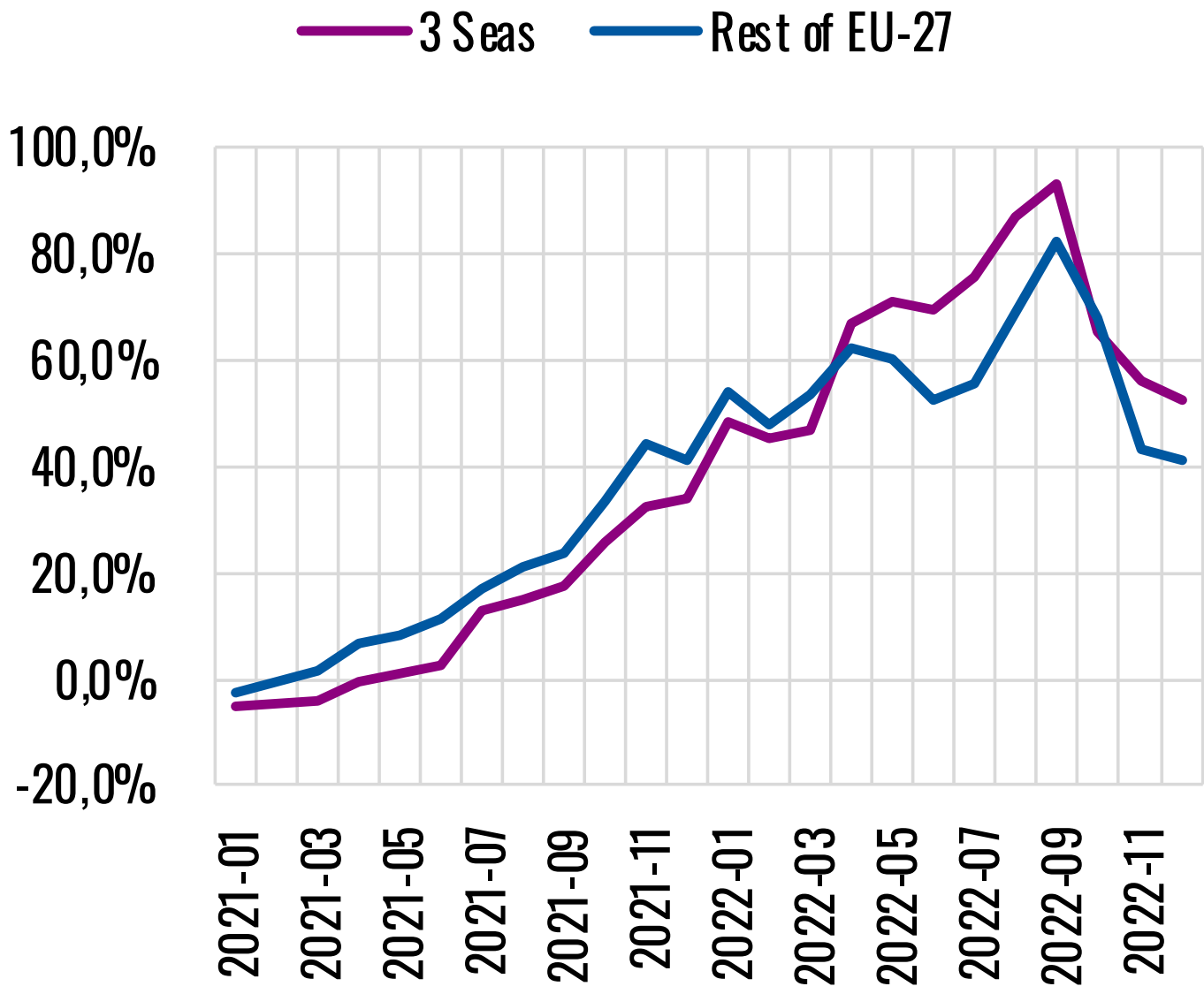


Tight supply of natural gas translated into price shocks in EU's wholesale gas markets...

...leading to intense growth of gas prices to consumers in both the 3 Seas and the Rest of EU-27 countries.

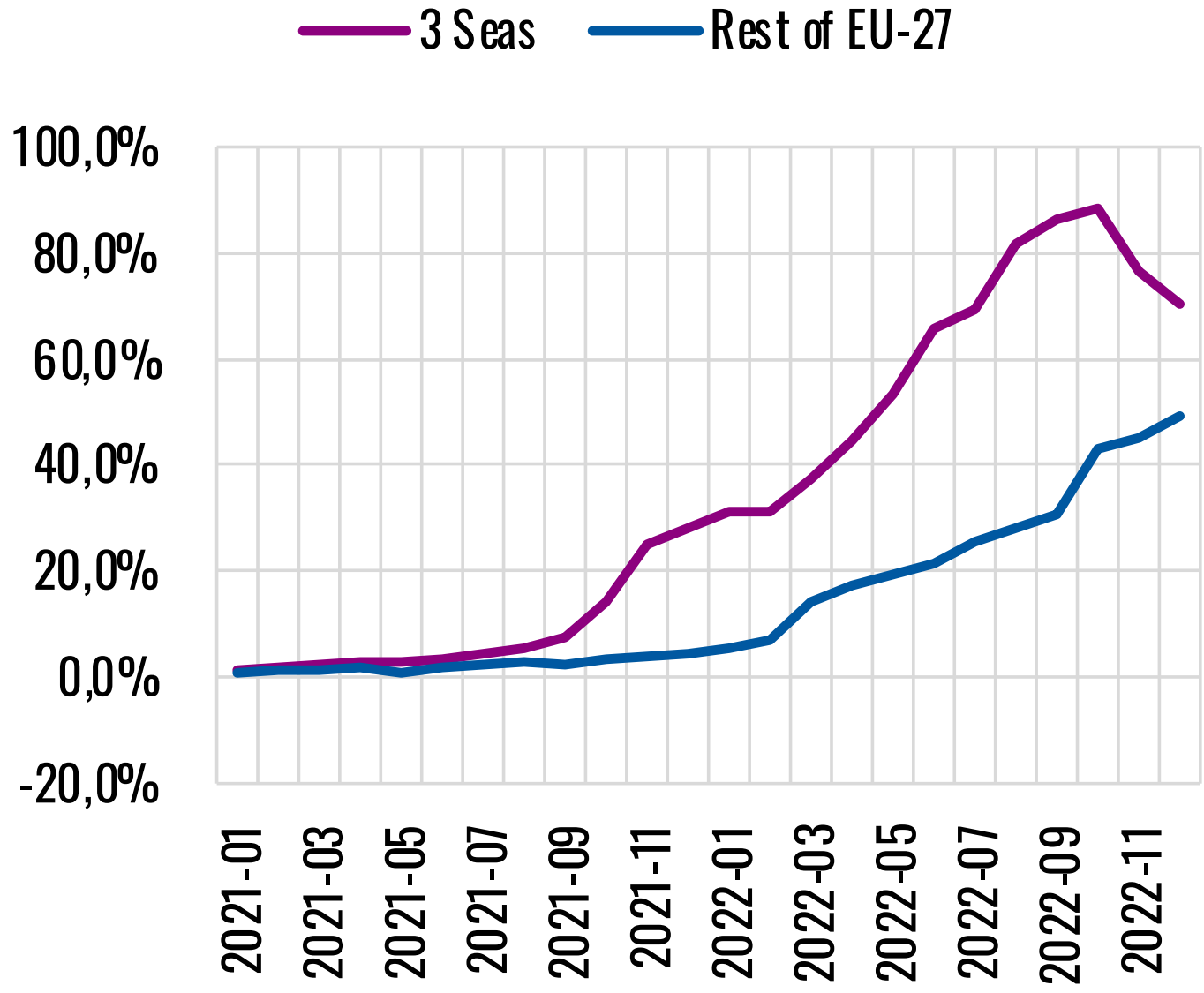
# HICP INFLATION: ENERGY CARRIERS (ANNUAL RATE OF CHANGE)

HICP inflation: natural gas



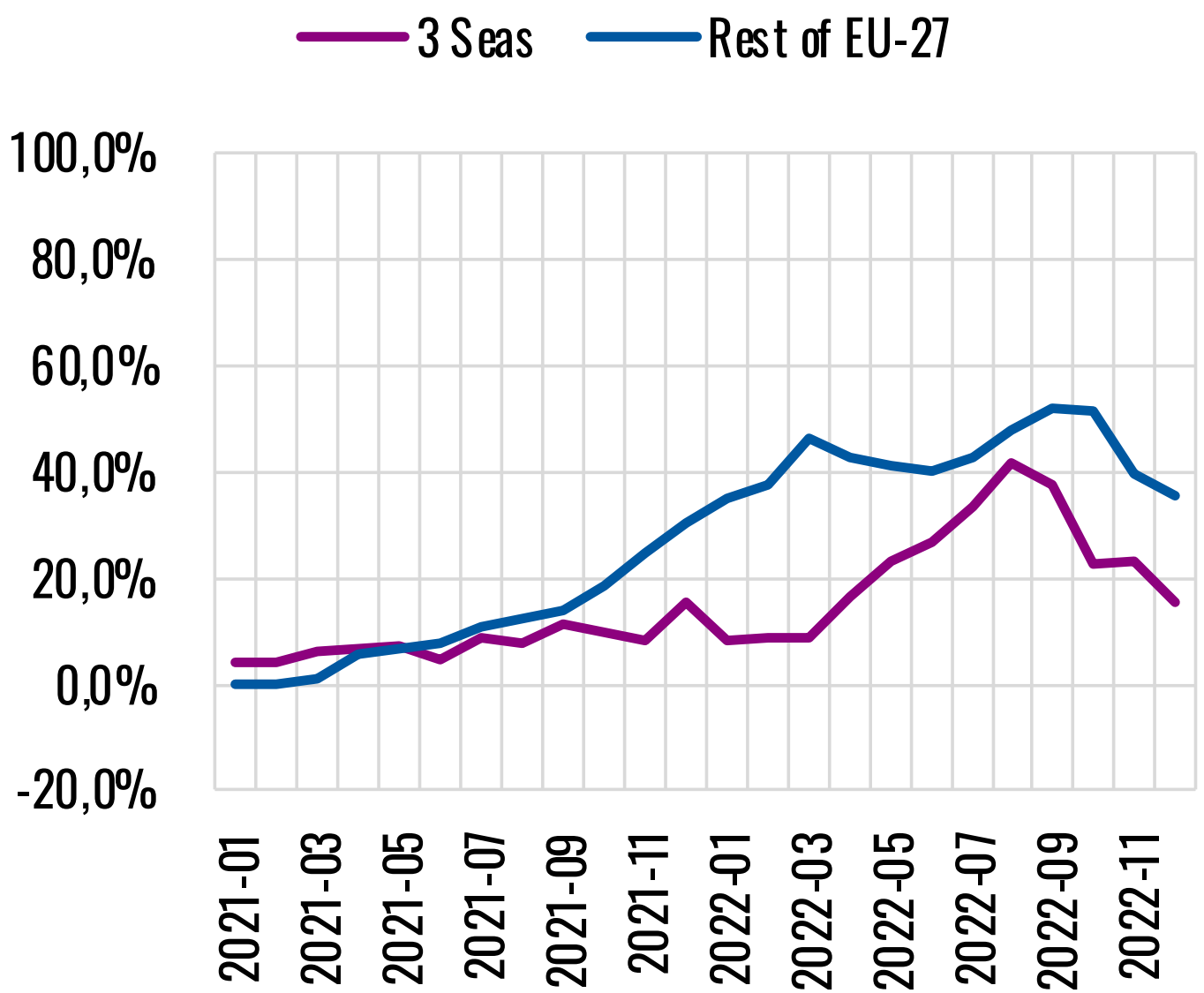
Natural gas prices rose dramatically in the 3 Seas and the Rest of EU-27 countries.

HICP inflation: coal



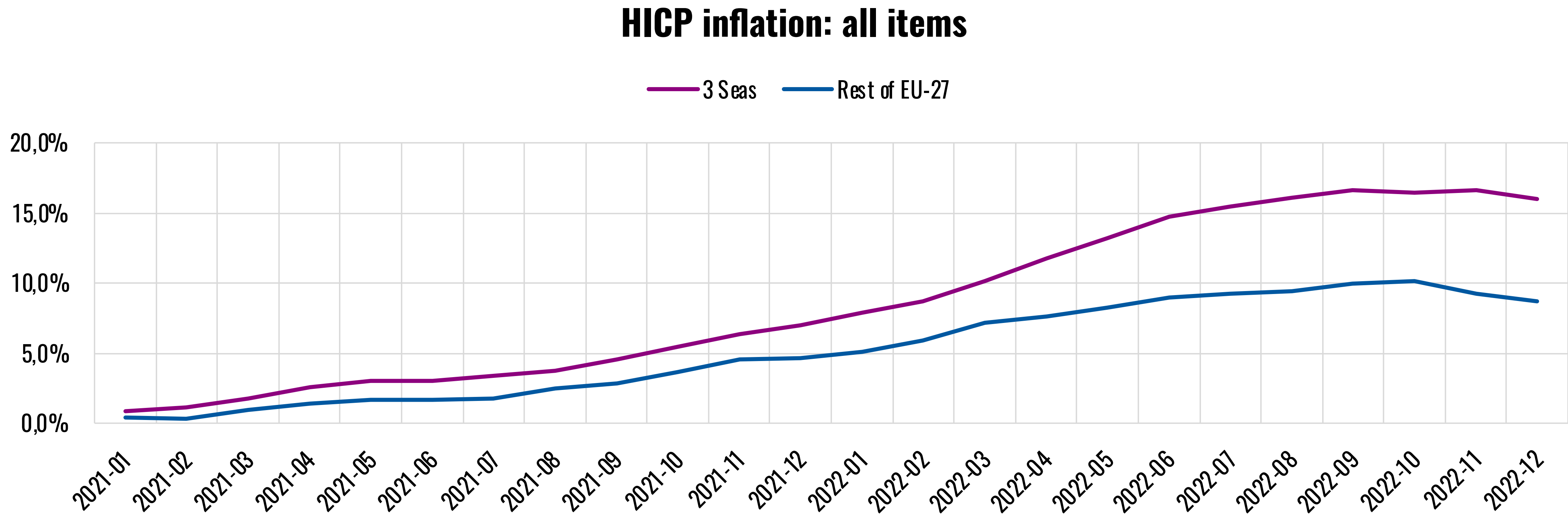
Growth of coal prices in the 3 Seas countries was just as intense, and visibly slower in the Rest of EU-27 countries.

HICP inflation: electricity



On the flipside, electricity prices rose more strongly in the Rest of EU-27 countries than the 3 Seas countries.

# HICP INFLATION: ALL ITEMS (ANNUAL RATE OF CHANGE)



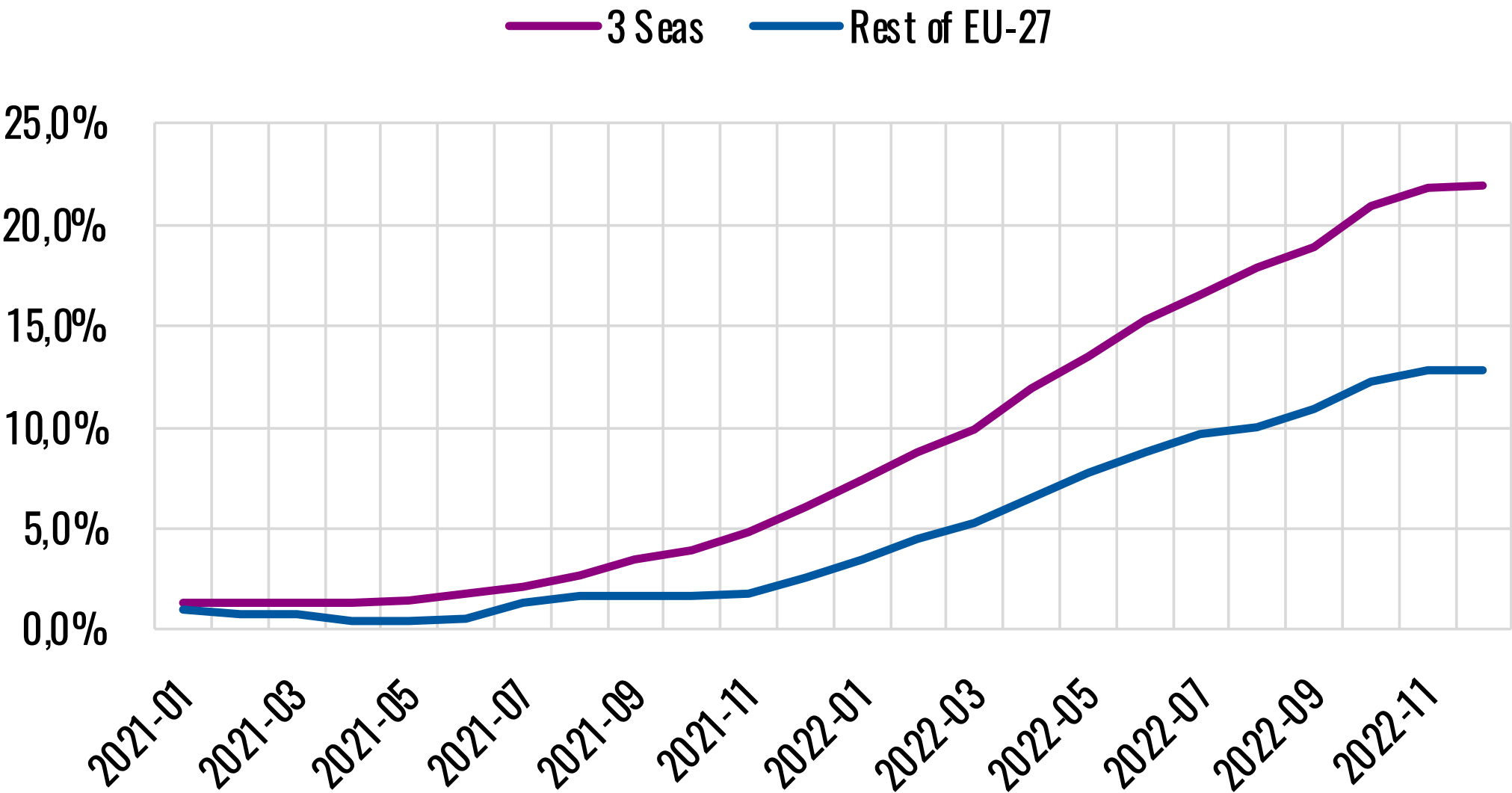
Inflation of energy carriers prices translated into price pressures across most economy sectors.

This led to unprecedented growth in all-items HICP inflation in both the 3 Seas and the Rest of EU-27 countries (although growth rates were much lower than for energy carriers).

All-items HICP inflation rate grew more strongly in the 3 Seas than the Rest of EU-27 countries.

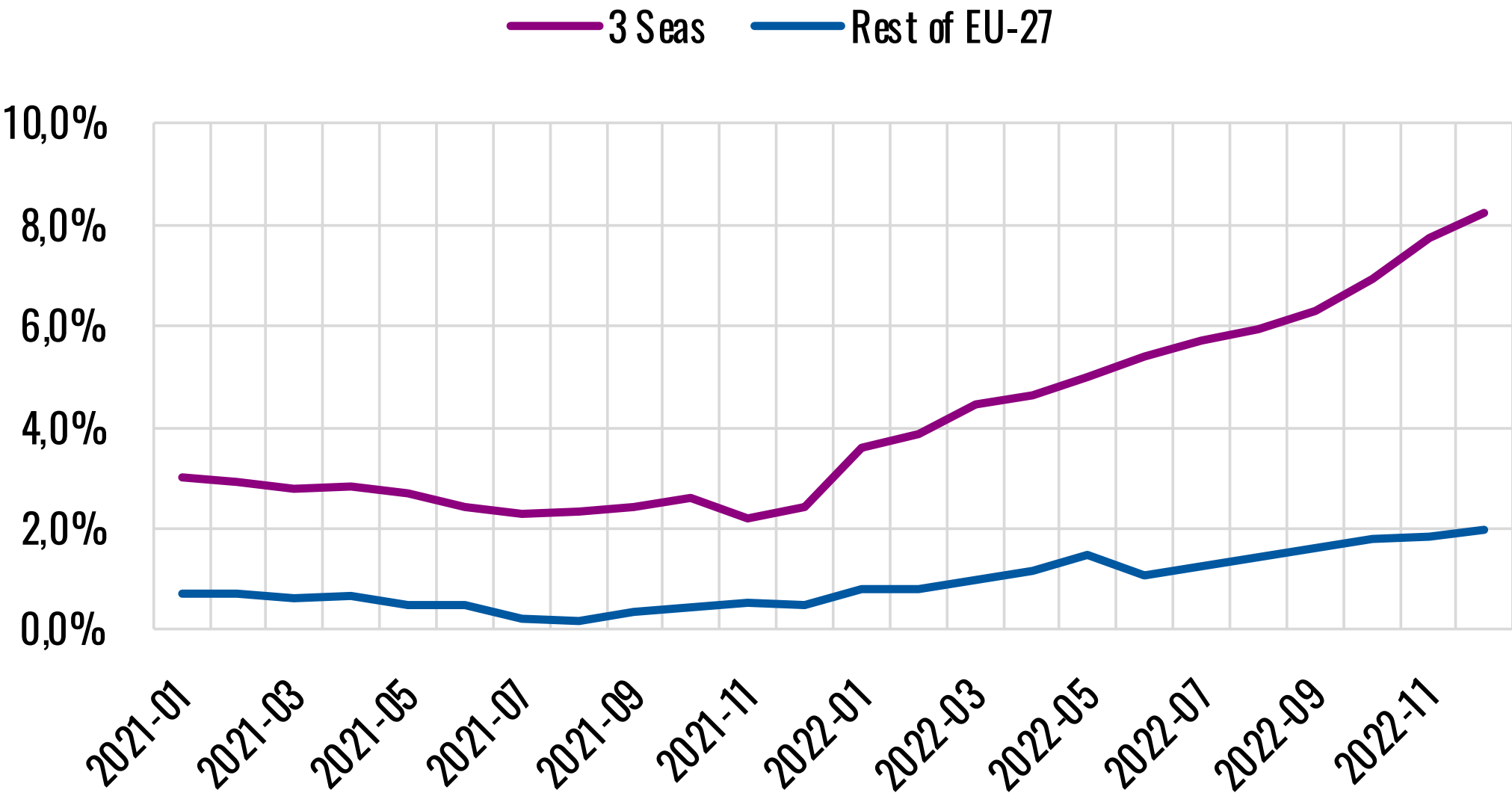
# HICP INFLATION: FOOD AND HEALTH (ANNUAL RATE OF CHANGE)

HICP inflation: food



Inflation of food products grew almost twice as fast in the 3 Seas countries than in the Rest of EU-27 countries.

HICP inflation: health

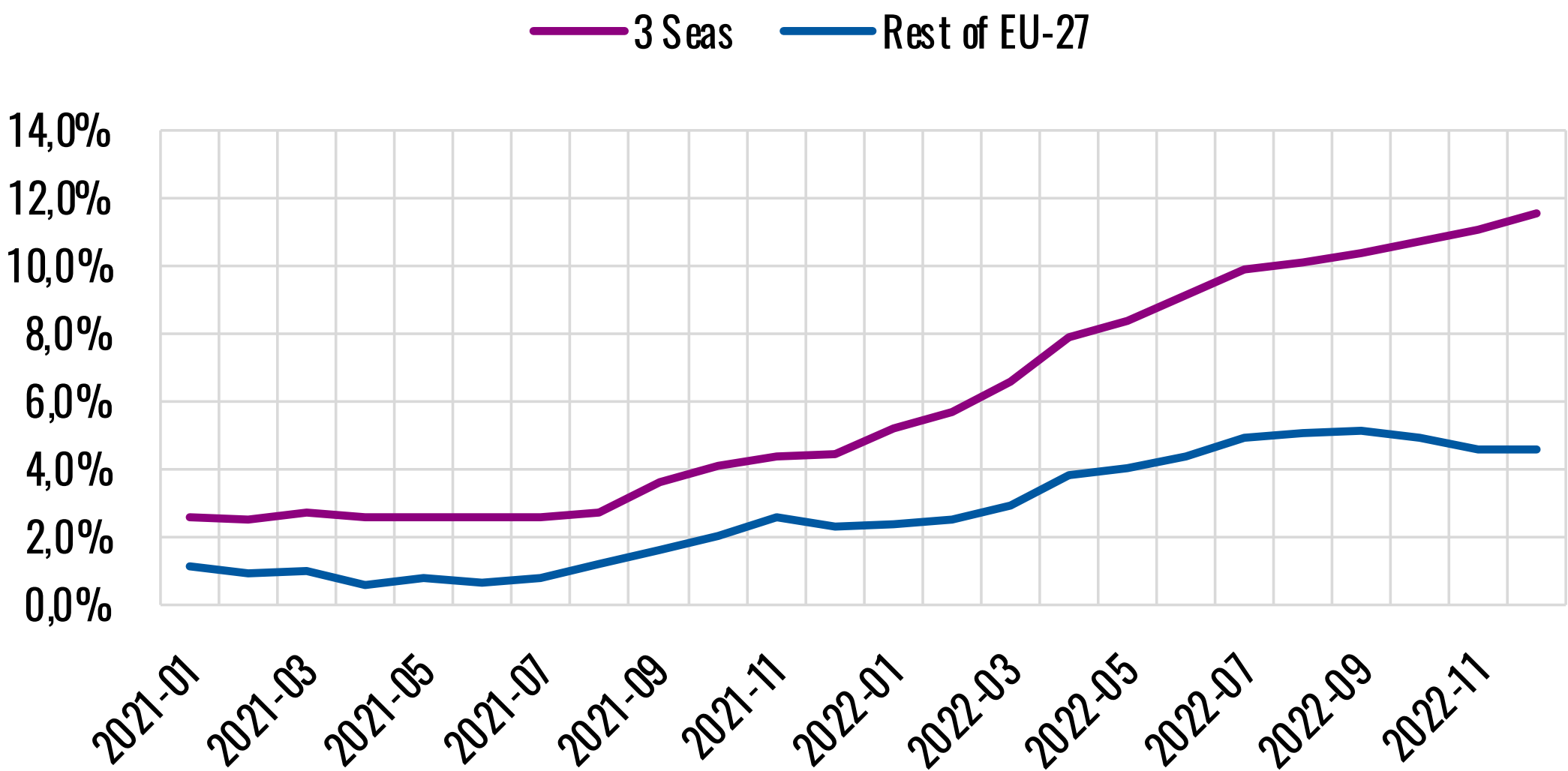


Health expenses inflation growth was much more intense in the 3 Seas countries than in the Rest of EU-27 countries.



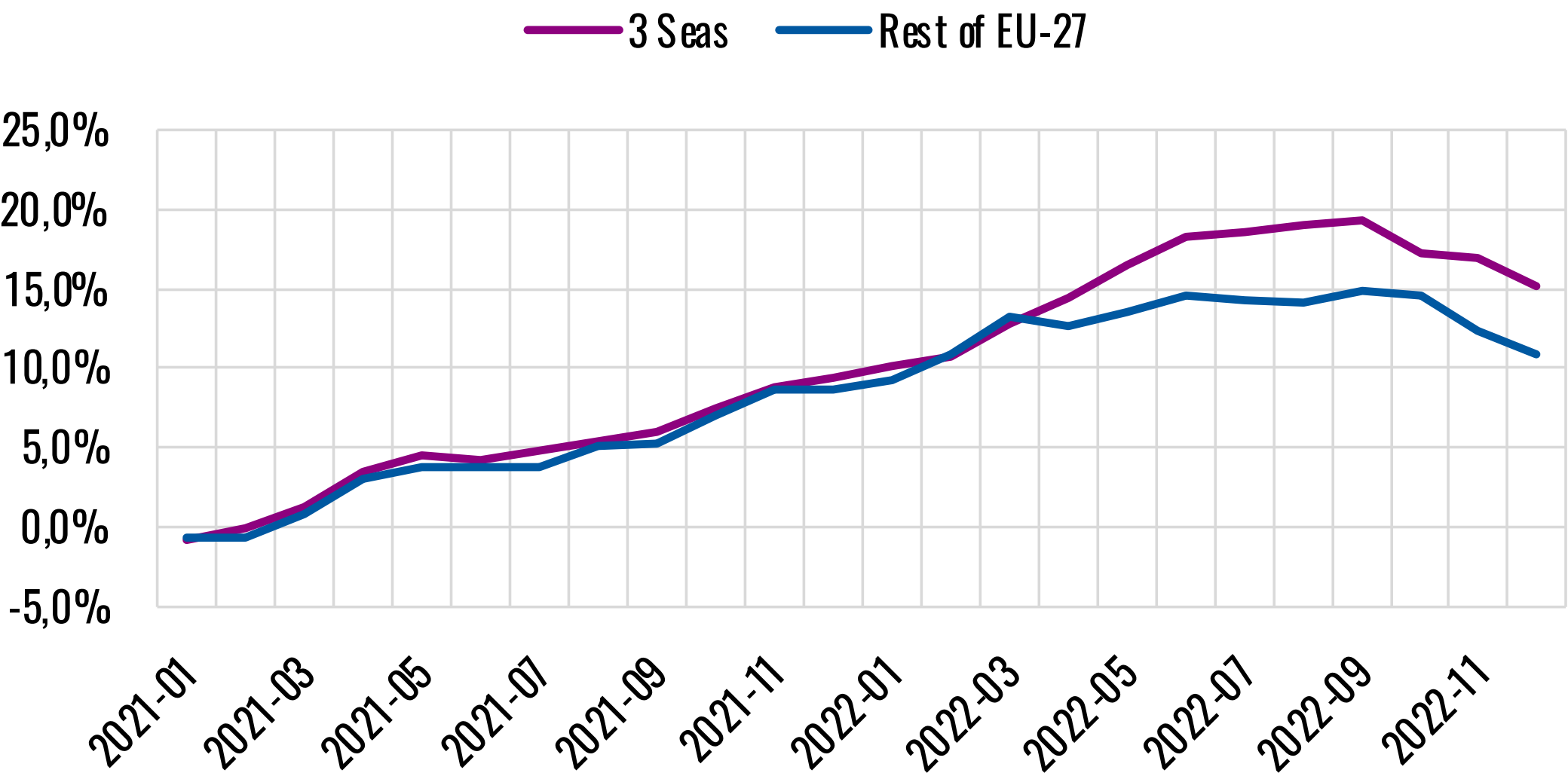
# HICP INFLATION: SERVICES AND INDUSTRIAL GOODS (ANNUAL RATE OF CHANGE)

HICP inflation: services



Inflation of services prices was much more prominent in the 3 Seas countries than in the Rest of EU-27 countries.

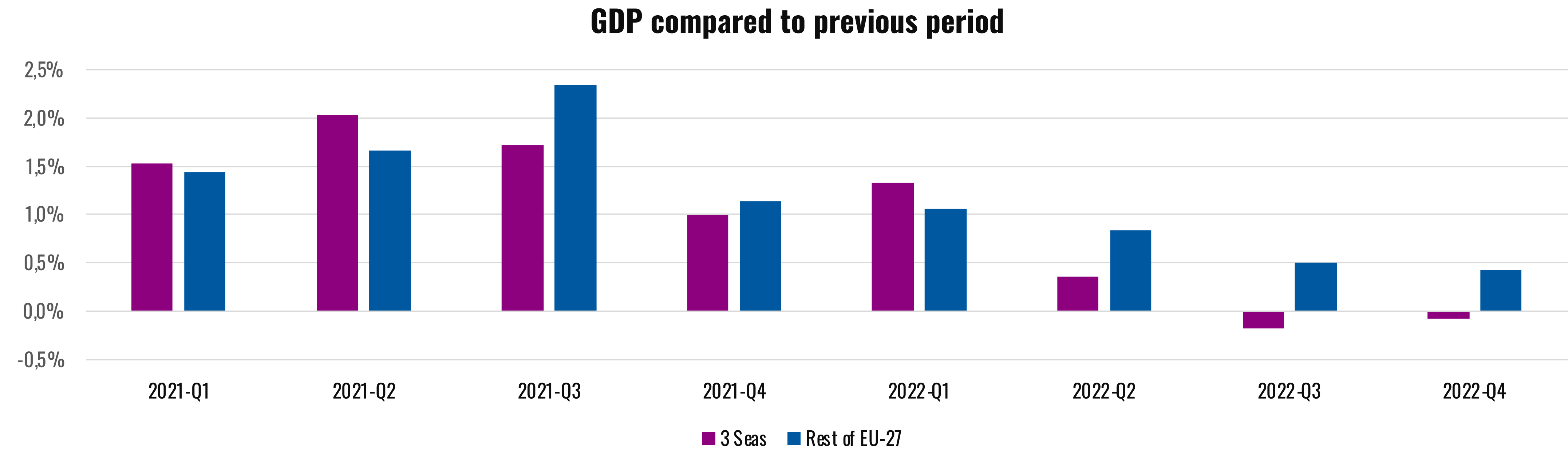
HICP inflation: industrial goods



Industrial goods in both areas followed a very similar trajectory.



# GROSS DOMESTIC PRODUCT



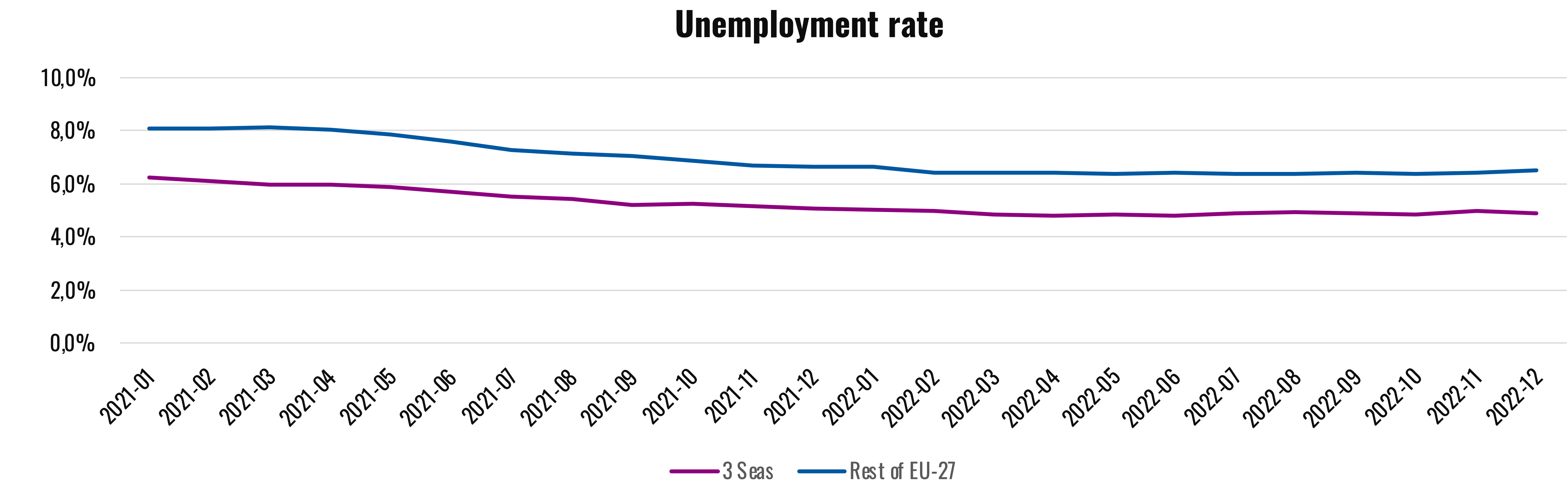
Strong inflation in both the 3 Seas and the Rest of EU-27 countries...

...stifled GDP growth from one quarter to another in 2022.

Decline in GDP growth rates was steeper in the 3 Seas countries than in the Rest of EU-27 countries. The 3 Seas countries experienced negative GDP growth in Q3-Q4 2022



# UNEMPLOYMENT RATE



Despite high inflation and tanking GDP across 2022...

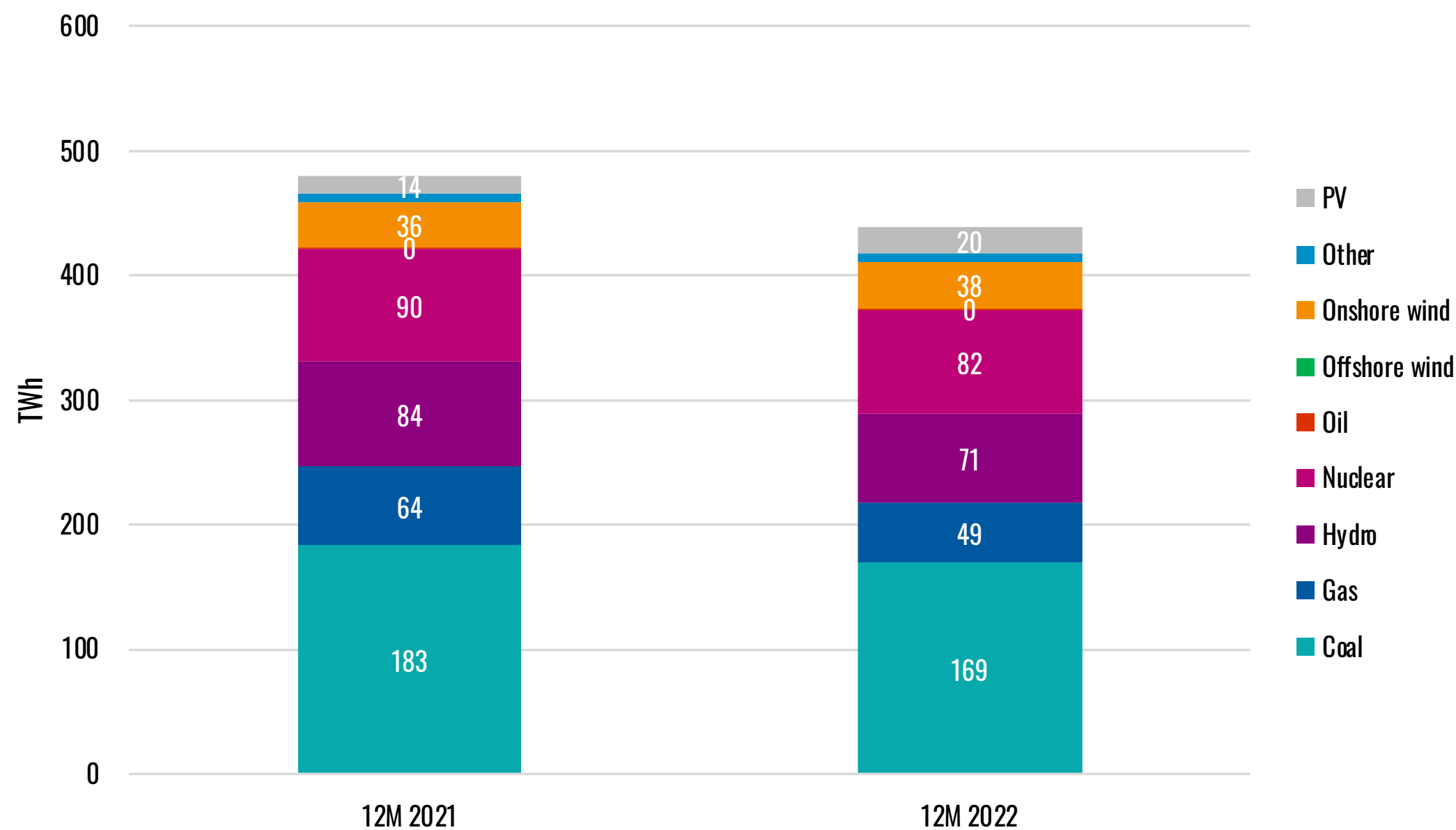
...unemployment rates remained stable (and lower than in 2021).

Unemployment in the 3 Seas countries was consistently lower than in the Rest of EU-27 countries.

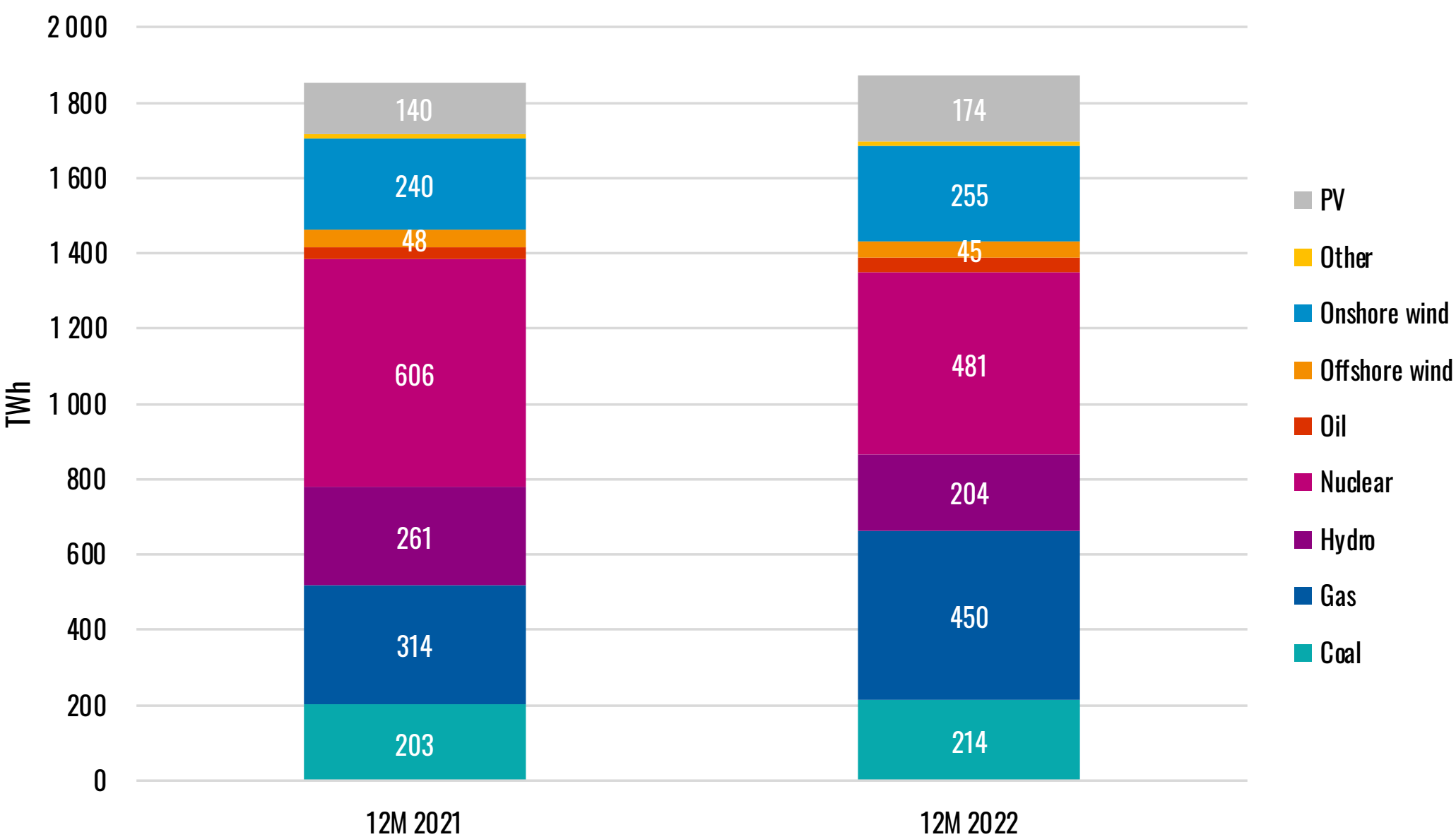


# ELECTRICITY GENERATION VOLUMES

Electricity generation mix: 3 Seas



Electricity generation mix: Rest of EU-27



Price shocks in the energy carriers markets impacted the electricity generation mix in both the 3 Seas and the Rest of EU-27 countries.

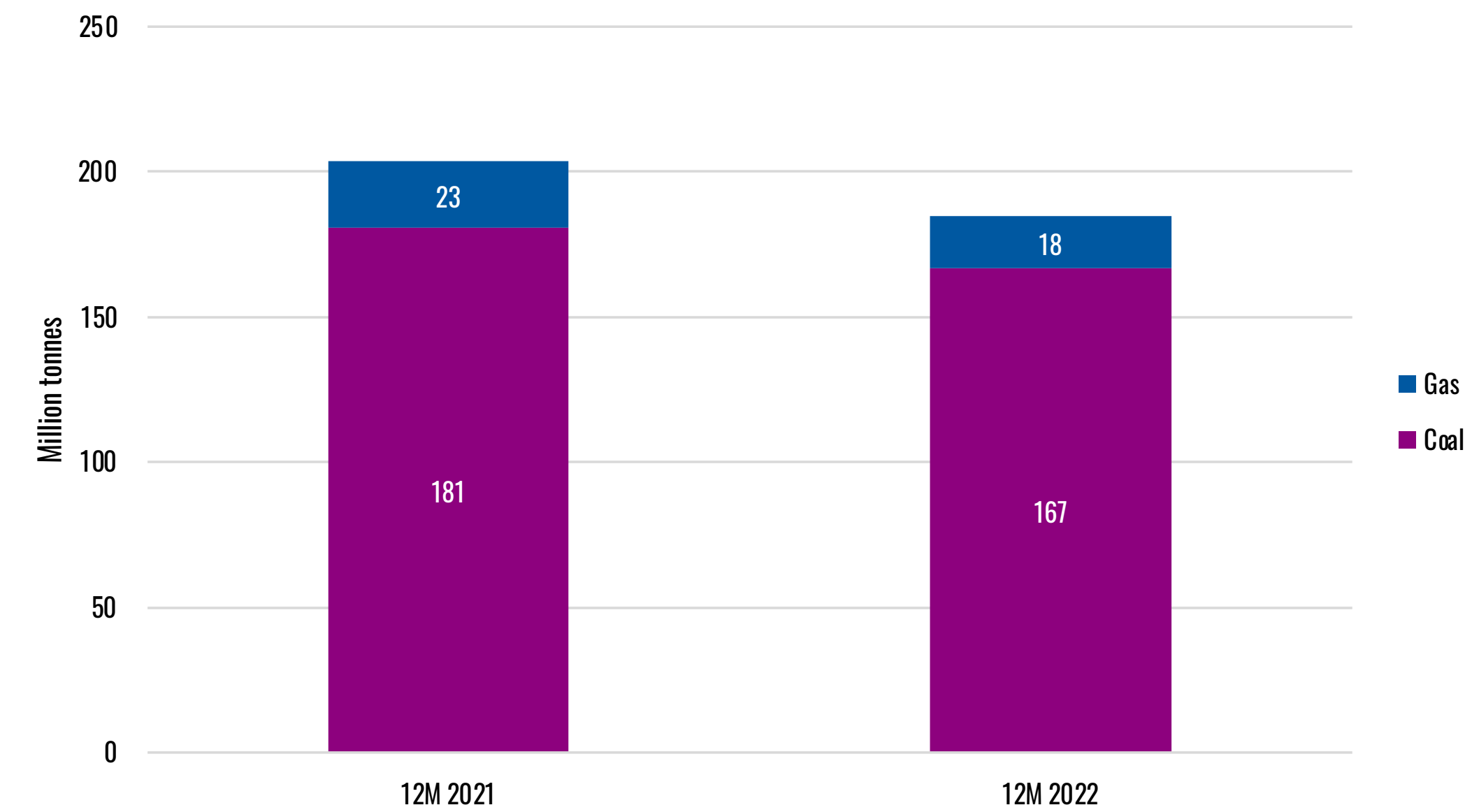
While the 3 Seas countries decreased their coal and gas-based electricity generation...

...the Rest of EU-27 countries witnessed more electricity from coal and natural gas.

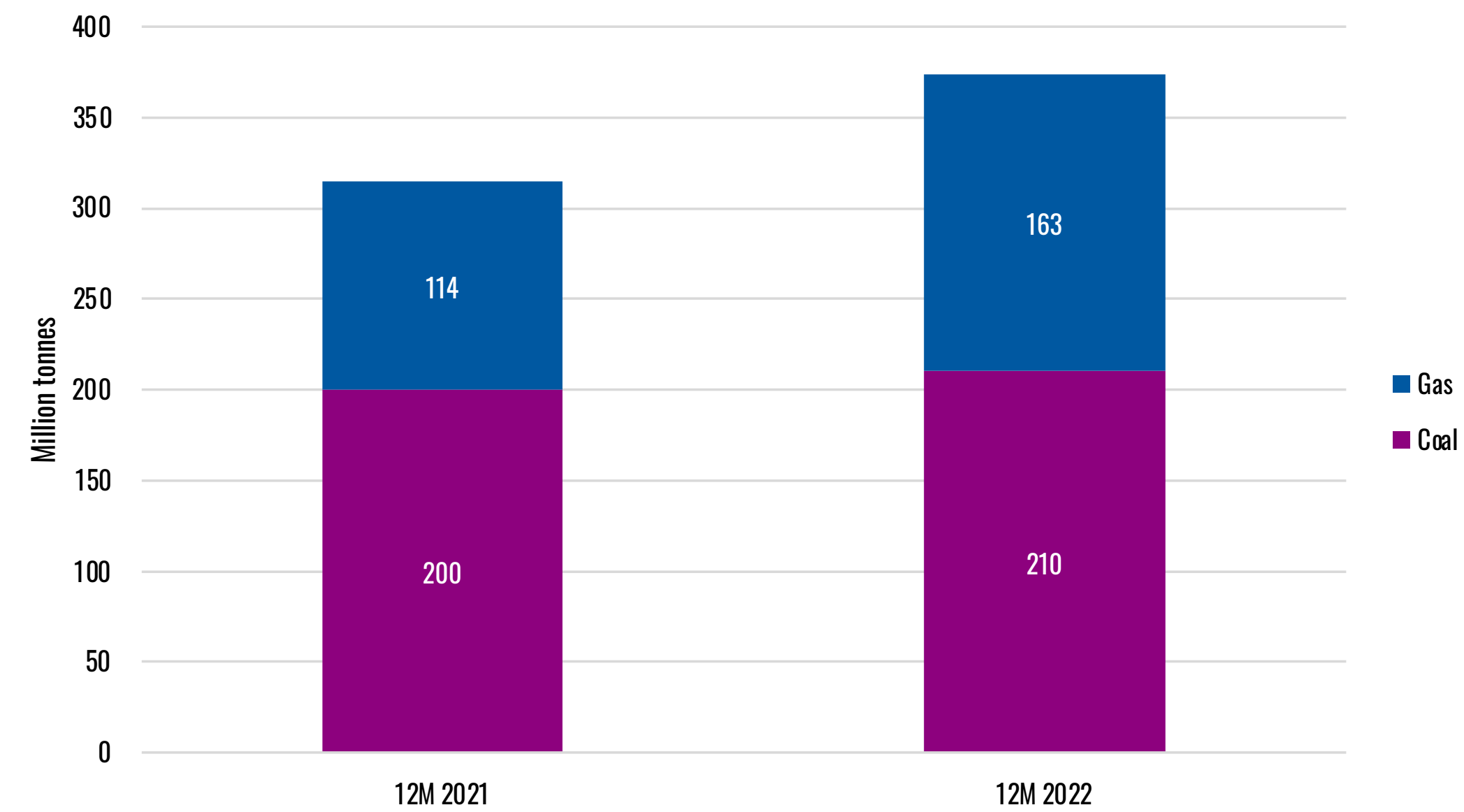


# CO2 EMISSIONS FROM ELECTRICITY GENERATION (OWN ESTIMATES)

CO2 emissions from electricity generation: 3 Seas



CO2 emissions from electricity generation: Rest of EU-27



Changes to the electricity generation mix of the 3 Seas and the Rest of EU-27 countries observed in 2022...

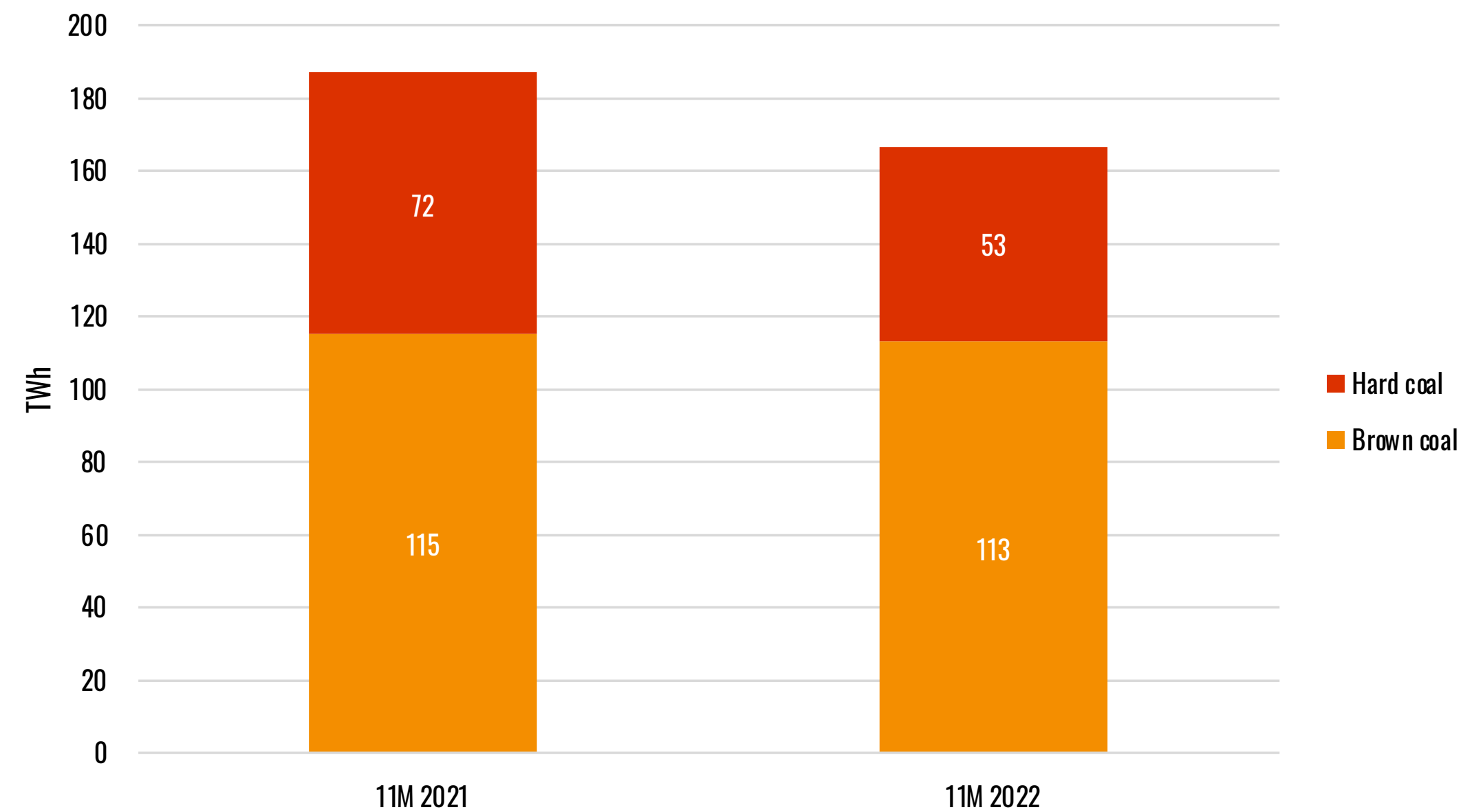
...translated to changes in electricity generation-related CO2 emissions.

While the 3 Seas countries emitted 9% less CO2 than in 2021, CO2 emissions in the Rest of EU-27 countries increased by 18%.



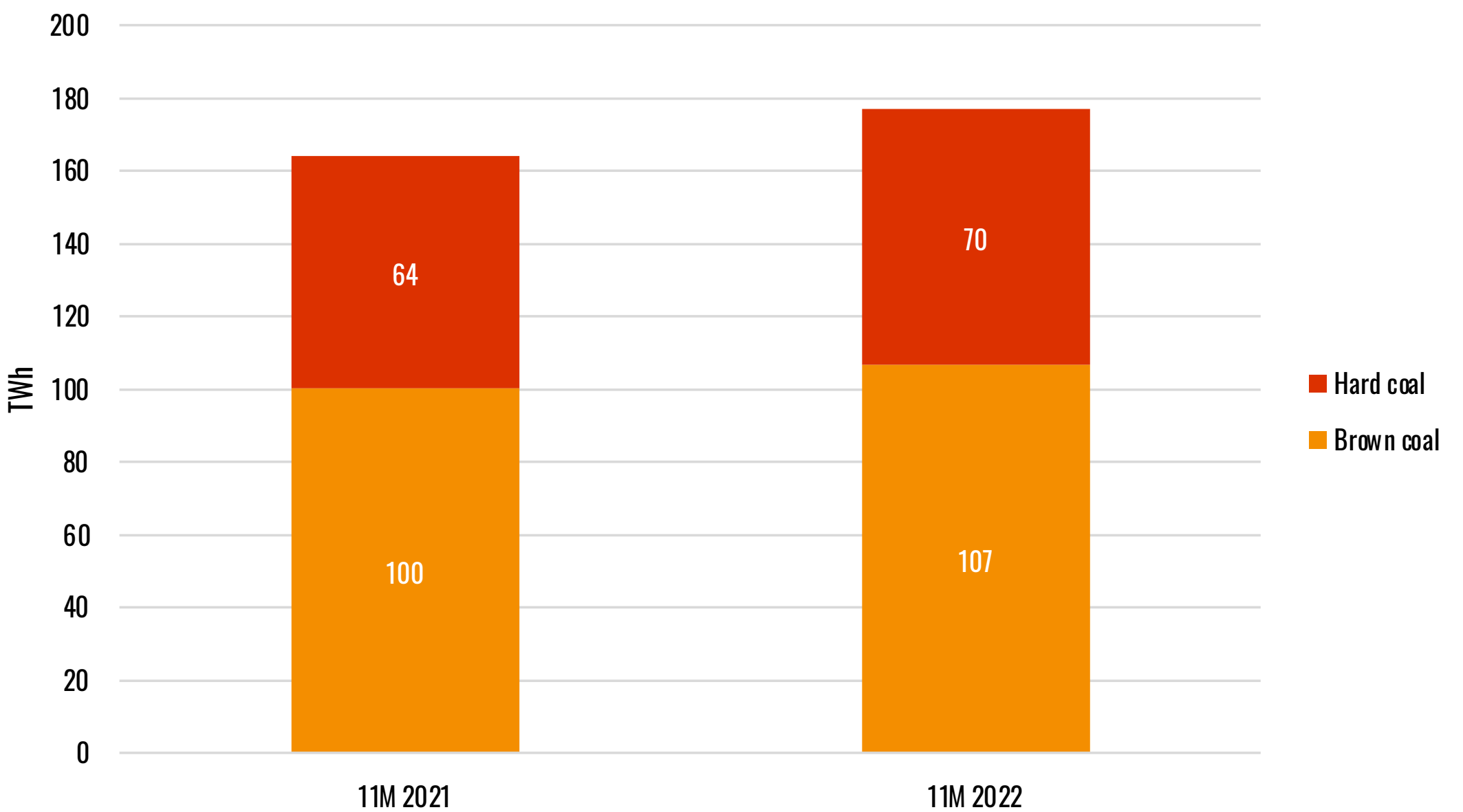
# USE OF COAL IN THE ECONOMY (ELECTRICITY AND OTHER SECTORS)

Use of coal in the economy: 3 Seas



Compared to 2021, the economies of the 3 Seas countries used 11% less coal...

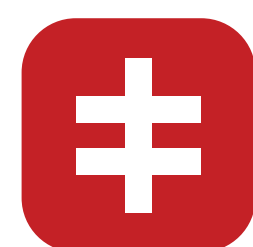
Use of coal in the economy: Rest of EU-27



...whereas the economies of the Rest of EU-27 countries used 8% more coal than in 2021.



**The report for 3SeasEurope was prepared by experts of the Jagiellonian Institute**



I N S T Y T U T  
J A G I E L L O Ń S K I