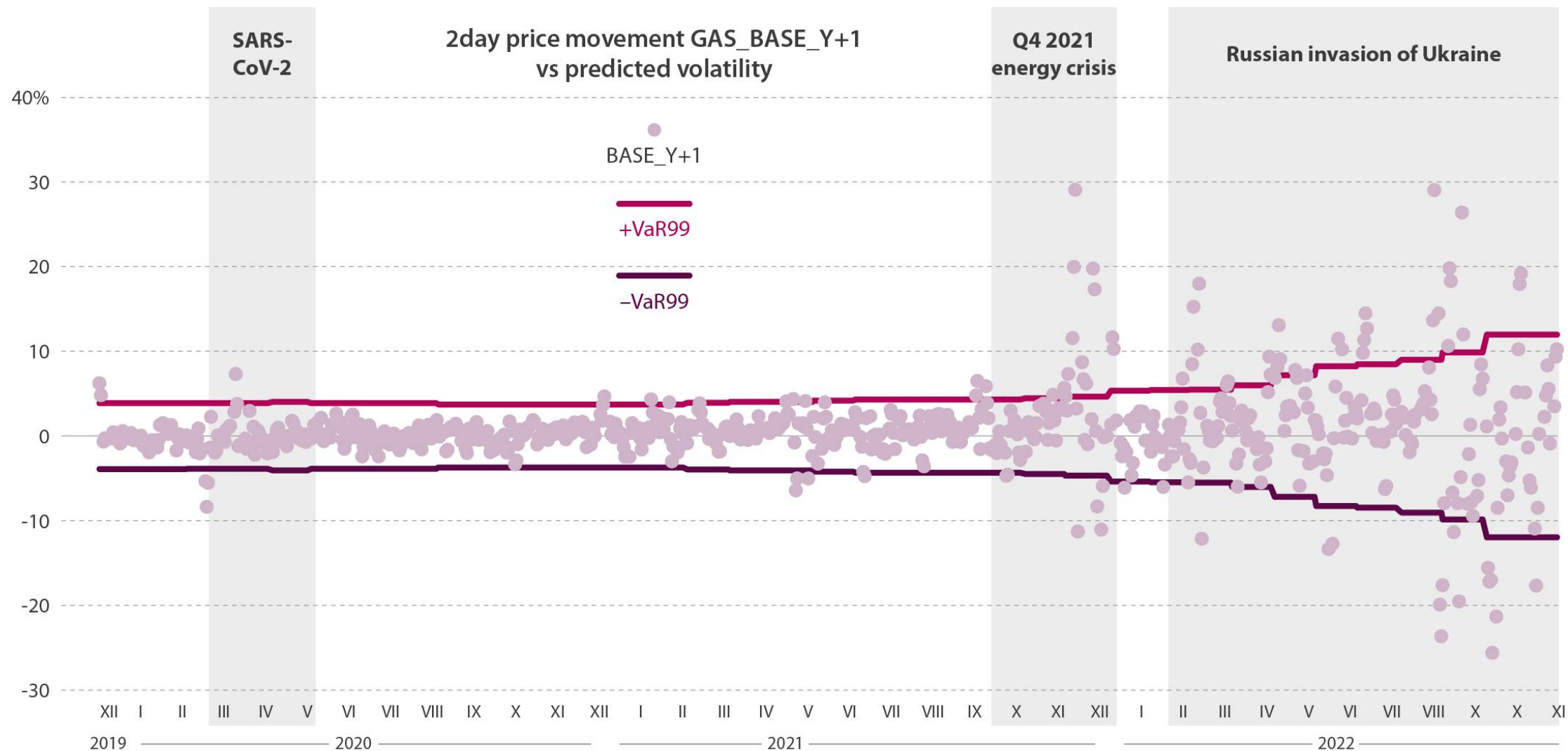


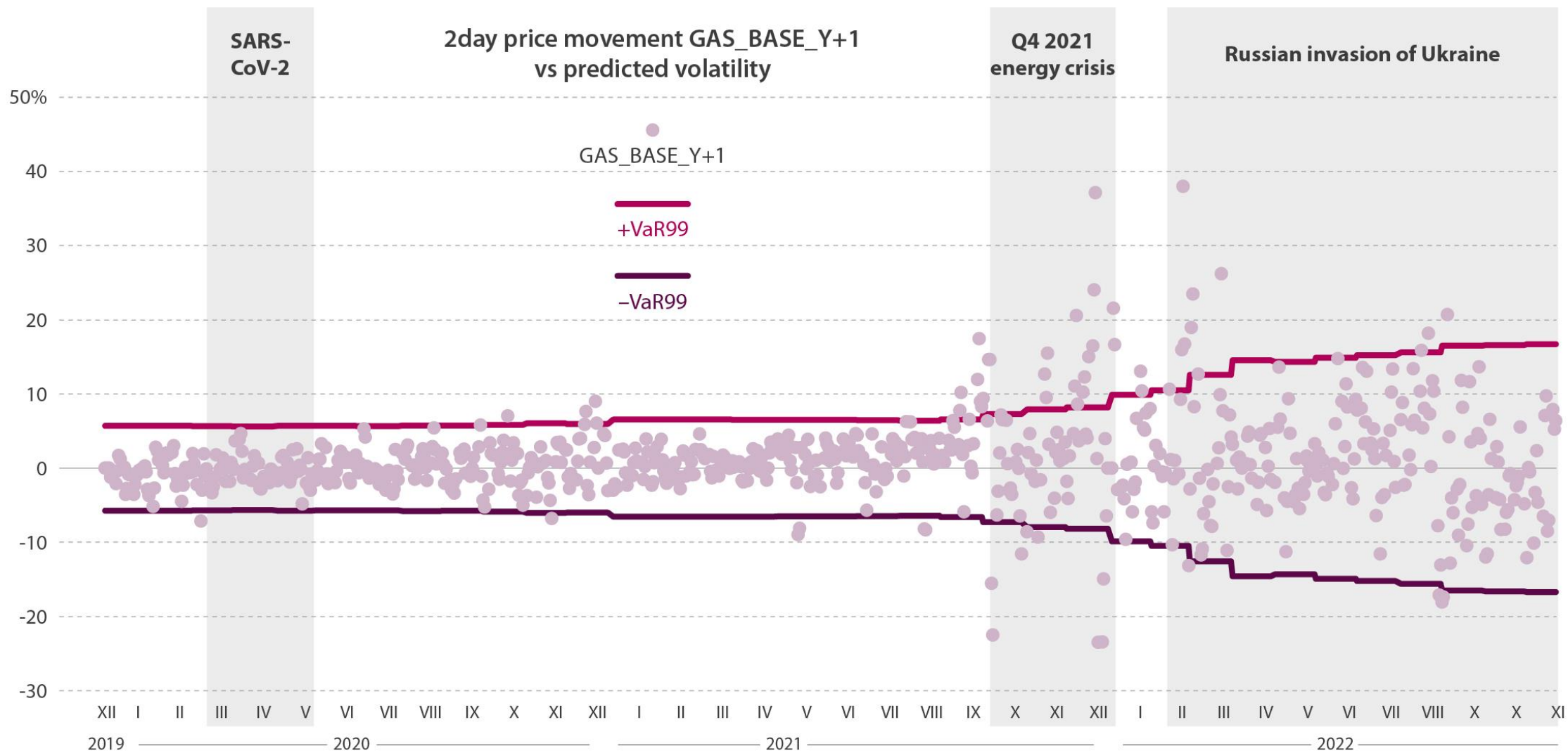
A large, intricate network map of Poland, where the country's outline is filled with a dense web of white lines and nodes, representing a complex network structure. The map is centered on a dark background.

MARKET UPDATE AND UPCOMING CHALLENGES FOR THE POLISH MARKET

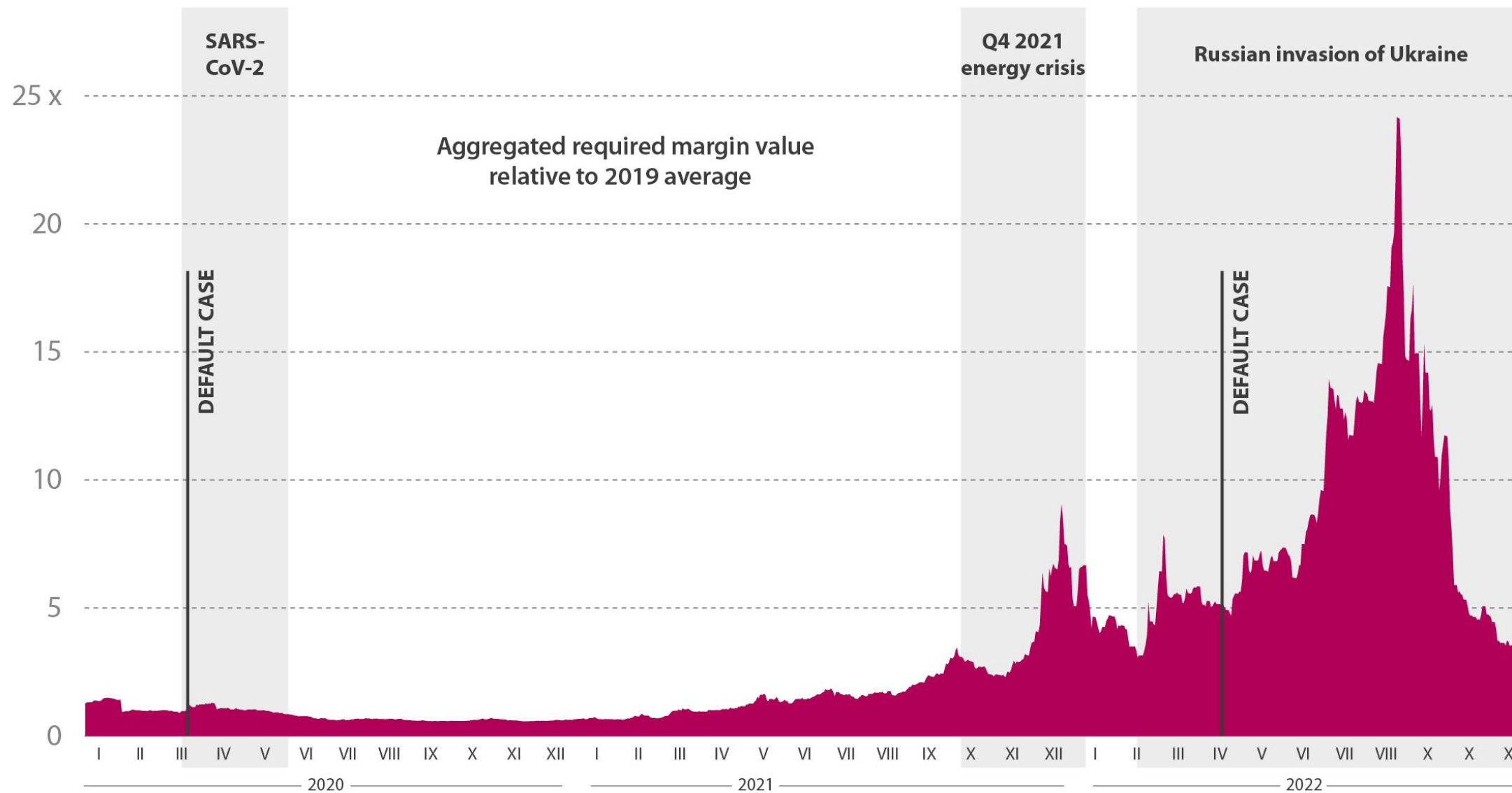
Is it still black swan season or is it already highly volatile market?



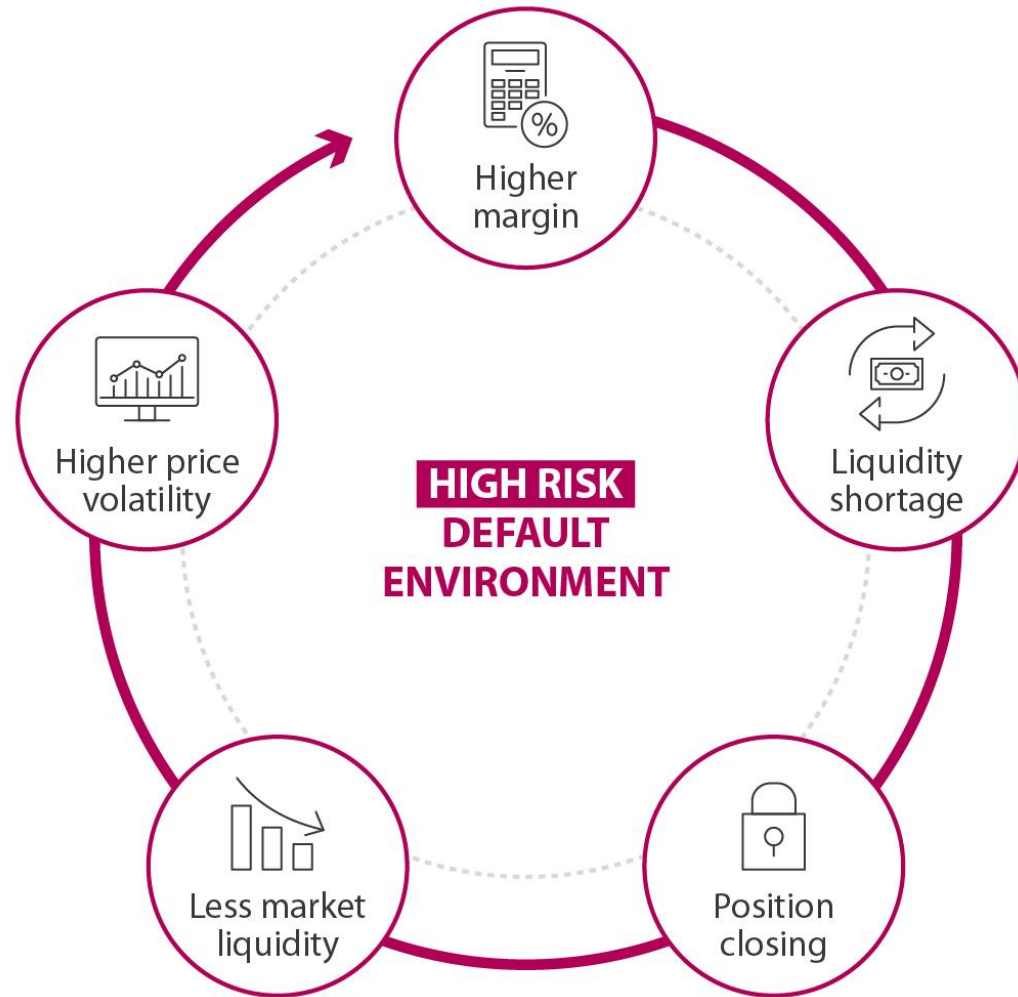
Is it still black swan season or is it already highly volatile market?



Impact of SARS-CoV-2 vs Russian invasion of Ukraine



Liquidity – Volatility spiral





SARS-CoV-2

- globally applied financial aid packages
- minor energy companies targeted solutions



Russian invasion of Ukraine

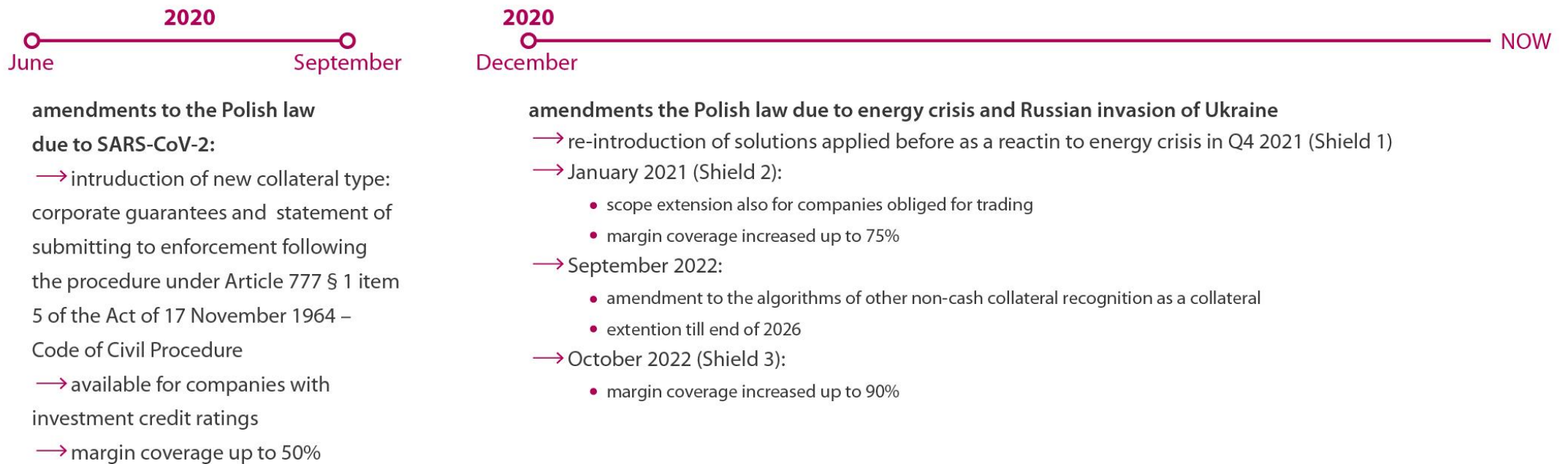
- Extreme market movements turned into unprecedented liquidity squeeze (estimated aggregate value of 1 to 1,5 tn Euro)
- Big names in big troubles:
 - Uniper, Centrica bank loans
 - ČEZ credit agreement with the government
 - Axpo, Fortum receiving government financial guarantees
 - German Federal Government credit lines (KfW) for energy companies
- EFET position on need of liquidity support for energy markets
- EACH papers and position letters
- Joint paper on extending eligible non-cash collateral (EFET, EACH, Europex, Eurelectric, Eurogas):
 - EUA
 - Bank guarantees



IRGiT standard solutions such as Bank guarantees as well as EUA and PMOZE_A as a soft landing in first phase of liquidity shock



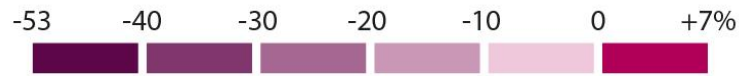
Polish legislation – government level act changes reflected in IRGiT rulebook



Decrease in gas consumption in Poland and the European Union

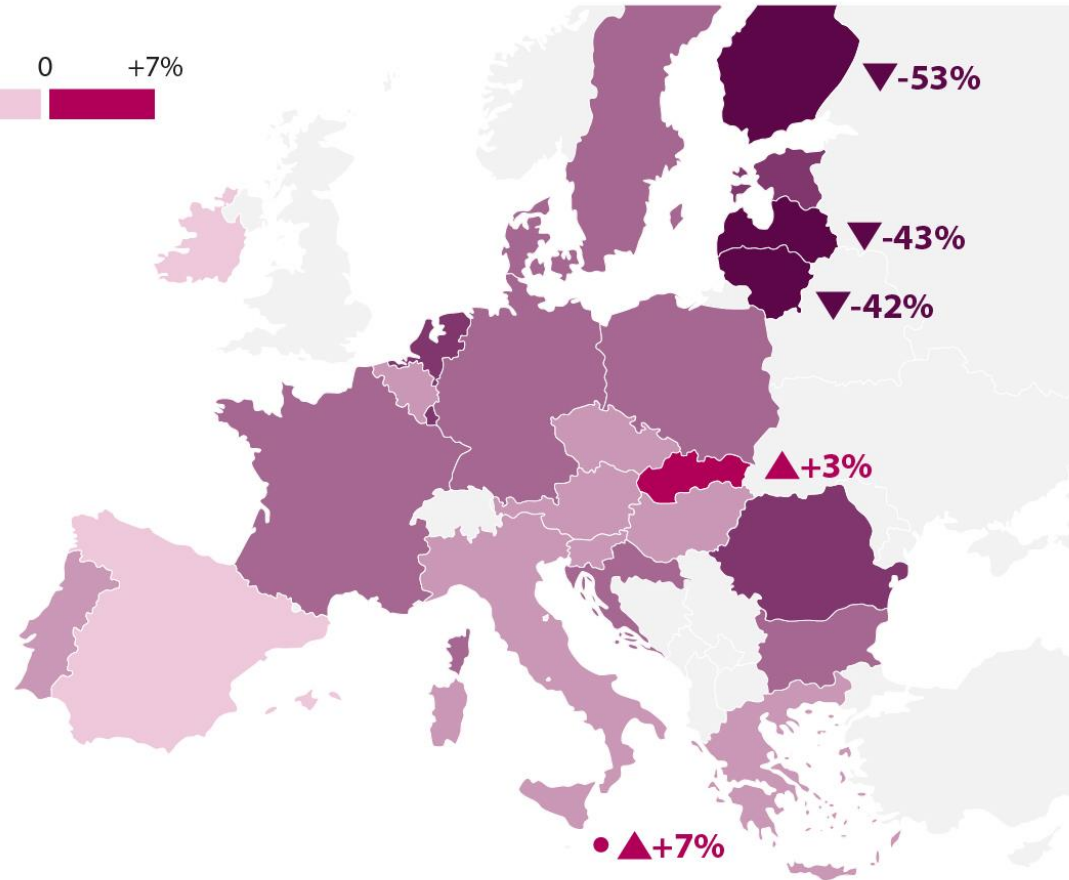
CHANGE IN GAS CONSUMPTION IN THE EUROPEAN UNION COUNTRIES

(August–November 2022 vs. average consumption in the same months in 2017–2021, source: Eurostat)



Gas is not used in Cyprus

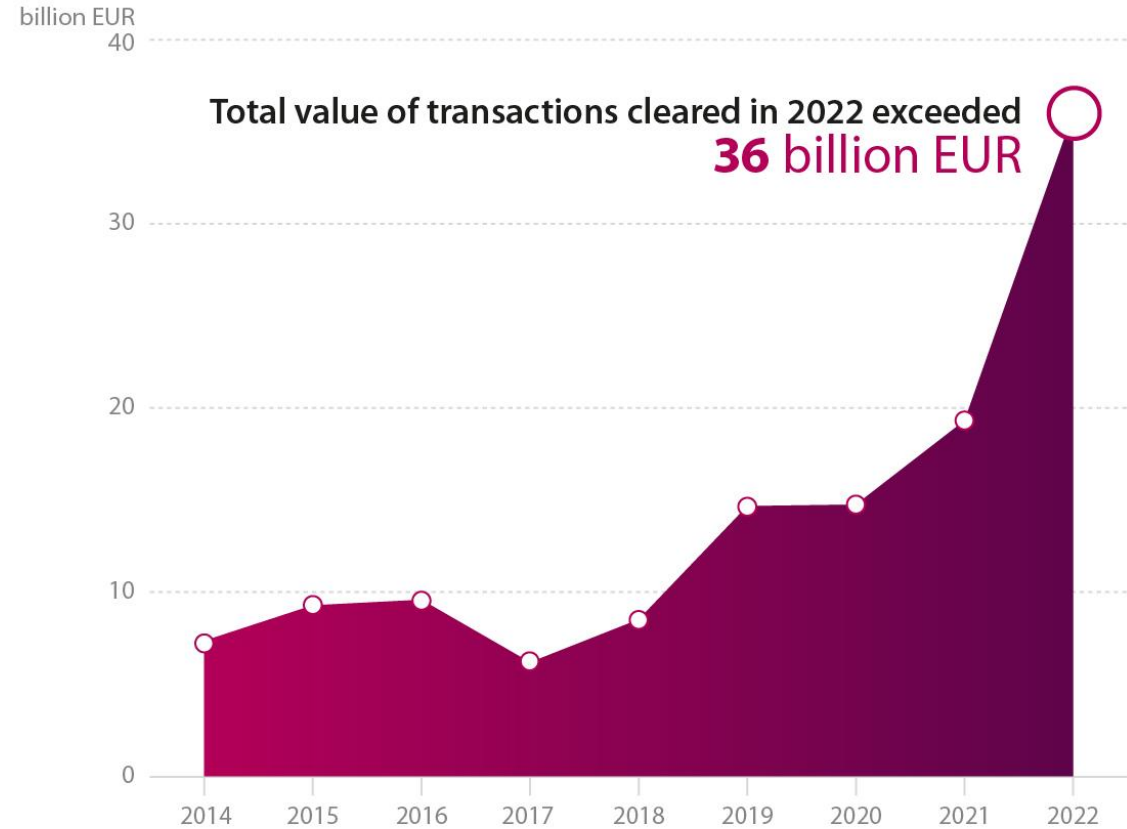
Natural gas consumption in the EU decreased by 19.3% between August 2022 and January 2023 compared to the average gas consumption for the same months (August-January) in 2017-2022.



VOLUME OF TRADES CLEARED



VALUE OF TRADES CLEARED



TGE&IRGiT develops the "green" exchange offer



Due to the increased share of RES generation and auto-production, mainly prosumer, the current structure of forward products divided into 24-hour BASE products and 15-hour PEAK peak profile seems insufficient for the needs of the market in the near future.



Long-term products, especially during peak hours, do not fully meet the needs resulting from the generation of photovoltaic sources.



There is a strong demand to cover the price risk in the evening peak hours and the situation when it is necessary to dynamically cover the needs of the energy system by conventional sources.



The daily DAM indices currently published maintain their informative value, however, in the context of intensifying changes in the energy sector and the growing share of renewable sources, in particular wind and photovoltaic sources, solutions adapted to the new mix should be sought.



From this point of view, it is important to introduce solutions based on the determination of standard profiles by specifying the expected hourly production for an average day in a given month, on the basis of which it is possible to create a corresponding price index.



After consultation with the market participants, TGE consider to implement new long-term instruments dedicated to RES, which will be listed in parallel to the products present on the OTF platform, i.e. BASE, PEAK and OFFPEAK.



NEW PRODUCTS PLANNED TO BE IMPLEMENTED



lowPeak – long-term instrument

- trading hours: 8-17.

highPeak – long-term instrument

- trading hours: 18-22.



Delivery period only on working days on a weekly, monthly and quarterly bases throughout the year.

NEW INDEXES



TGeONSHOREm – averaging electricity prices using weights defining the hourly profile of electricity generation from onshore wind sources in Poland.



TGePvm – averaging electricity prices using weights defining the hourly profile of electricity generation from photovoltaic sources in Poland.



TGeBASEm – the arithmetic mean of the volume-weighted averages of the hourly DAM prices.



TGeBASE_Wavg – the average monthly price on the DAM weighted by the trading volume.

EXPECTED BENEFITS FROM THE IMPLEMENTATION

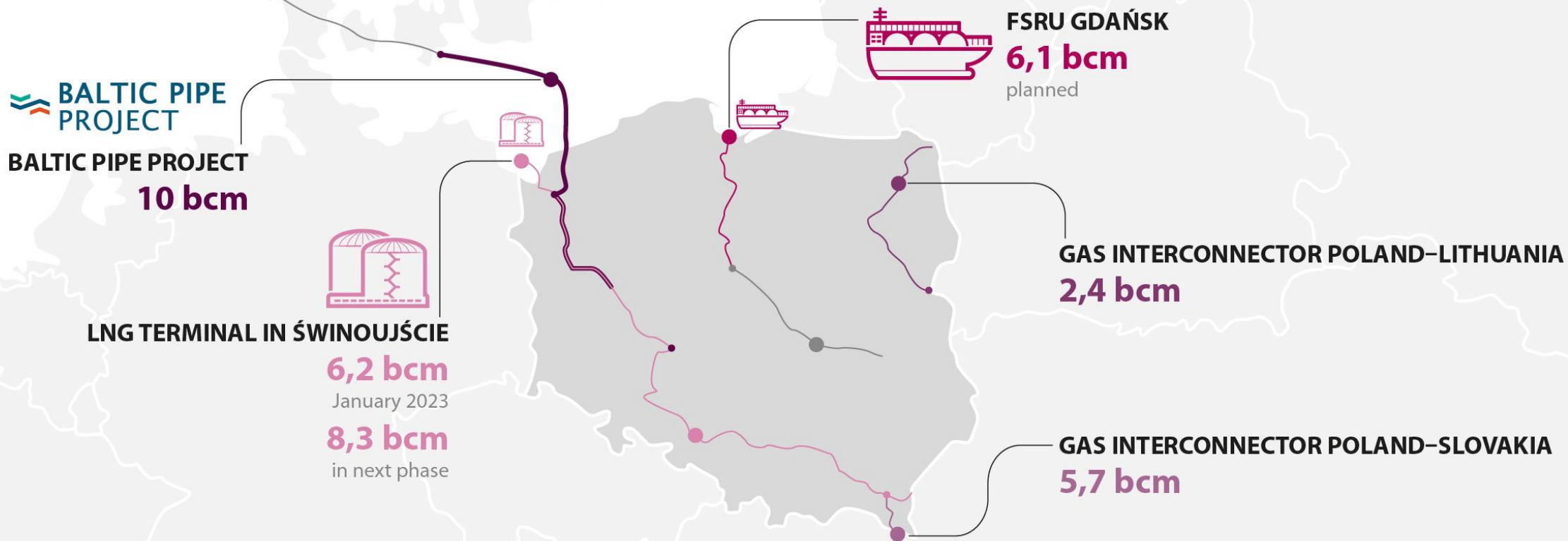
» Improving the liquidity of the group of long-term products at peak time.s

» Reducing the cost and risk of securing contract positions.

» Peak hour products better suited to PV generation.

» More complete market information on the prices of the changing demand profile and the situation in the National Power System.

New infrastructure – new opportunities on the gas market



» In 2022 supplies of Russian gas to Poland ended.



THANK YOU!

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