# TortoiseEcofin QuickTake Podcast

February 10, 2023

**Welcome to another TortoiseEcofin QuickTake podcast. Thank you for joining us. On this podcast, we are going to discuss a timely topic – what is going with natural gas prices.**

Hello, I am Tortoise Senior Portfolio Manager Rob Thummel.

Last week Punxsutawney Phil emerged from hibernation, saw his shadow, and predicted six more weeks of winter. Will Phil be the predictor that call the bottom for natural gas prices?

We just passed the halfway point of winter and natural gas prices in the U.S. and Europe have plunged by almost 80% from summer 2022 highs. This is good news for consumers of natural gas. Lower natural gas prices are also helpful in the global fight against inflation.

However, many are asking several natural gas related questions that I will address in this podcast.

To get started, what caused the historic rise in natural gas prices in the first place?

Russia's invasion of Ukraine on February 24, 2022 caused an immediate spike in European natural gas prices and a gradual rise in U.S. natural gas prices throughout 2022. Natural gas instantly evolved into a global market as Europe searched for alternatives to replace approximately 40% of its natural gas supply that had been previously imported from Russia for decades. U.S. natural gas producers immediately responded increasing liquified natural gas or LNG volumes to Europe with approximately 70% of all LNG cargoes being directed toward Europe throughout 2022. Through November 2022, U.S. LNG exports to Europe increased by 4 billion cubic feet per day or almost 3x higher than a year earlier. Even with the extraordinary efforts of the U.S., the short-term challenge of immediately replacing almost 15 billion cubic feet per day of natural gas imported from Russia resulted in a surge in European natural gas prices to almost $100 per thousand cubic foot in August 2022. Daily U.S. natural gas prices followed European prices higher peaking at almost $10 per unit in August which is typically the period when natural gas inventories are building before the winter heating season begins.

So, why did natural gas prices fall so quickly?

U.S. prices declined as natural gas inventories increased due to rising natural gas production and lower than expected demand.

Prices started to decline when the re-opening of Freeport LNG experienced delays. Freeport LNG which converts approximately 2% of daily U.S. natural gas production into LNG closed in June of 2022 due to an expected fire. Initially, the facility was expected to resume full operations by late 2022. However, Freeport remains closed today and is not expected to become fully operational until April 2023.

In the meantime, U.S. production volumes rose to record levels in 2022 due to higher demand for LNG as the U.S. became the world's largest LNG exporter in 2022.

So lower natural gas demand due to the Freeport LNG outage coupled with record U.S. natural gas production levels resulted in natural gas inventories shifting from below average to average levels by prior to the beginning of the winter heating season in October. Warmer than normal weather in 2023 including a rare increase in weekly natural gas

© 2023 TortoiseEcofin 

inventories in January has elevated natural gas inventories levels to 7% above the 5-year average. As a result, U.S. natural gas prices have experienced the most significant peak to trough decline since 2008/2009.

In Europe, fears of a looming natural gas crisis during the winter resulted in stockpiling of natural gas throughout the summer of 2022. European natural gas storage levels were 30% of capacity in April of 2022 rising to over 90% of capacity by October. Unseasonably warm weather throughout Europe to start the winter heating season resulted in natural gas inventories rising to 95% of capacity by November. Today, inventories remain much higher than normal at over 80% of capacity. Higher inventories supported by a steady stream of LNG imports primarily from the U.S. and encouragement by the European Union for members to voluntarily cut natural gas use by 15% during the winter have led to a steep decline in European natural gas prices as well.

What is our outlook for prices in 2023?

Assuming normal weather for the remainder of winter in other words no polar vortex, U.S. natural gas prices likely remain around $3 dollar per unit plus or minus 50 cents for the remainder of 2023. Forecasts for natural gas supply and demand through the beginning of the next heating season in October of 2023 suggest that natural gas inventories could exceed 4.0 trillion cubic feet, the highest level of inventories since 2016. U.S. natural gas production volumes are forecasted to surpass 2022 records rising by as much as 1 billion cubic feet per day. However, no new U.S. LNG export capacity is expected to be added. The next wave of U.S. LNG supply comes in 2024 when Golden Pass and Corpus Christi Stage III add at least 2 bcf/d of demand to the natural gas market. Coal to natural gas switching in excess of 1 bcf per day and the potential for lower U.S. natural gas production could occur to reduce inventories and increase price levels.

We expect European natural gas prices to remain at a multiple of U.S. prices probably at least 4 or 5x. European inventory levels will be much higher than last year. However, Europe will continue to rely on U.S. LNG to keep inventories replenished. In the first quarter of 2023, Europe will have to replace an additional 7 bcf/d of Russia gas that was a key source of supply prior to the Ukrainian invasion in February of last year. Natural gas has become a global commodity. LNG demand from China is forecasted to rise by double digits in 2023 after declining the previous year. In 2023, Europe will have to compete with Asia for global LNG volumes which will likely keep European natural gas prices elevated.

To sum it up, what does this outlook for natural gas prices mean for stocks in the energy sector?

In general, energy stocks display a low correlation to natural gas prices - around 0.25 or so.

From a fundamental perspective, cash flows of natural gas producers are most sensitive to changes in natural gas prices. The largest natural gas-oriented producers such as EQT, Southwestern, Chesapeake, Antero, and Coterra have significantly reduced debt over the past several years so these companies are better equipped to deal with low prices.

The core cash flows generated by energy infrastructure companies are minimally impacted by changes in natural gas prices. Natural gas pipeline operators like Williams, Kinder Morgan, and Enbridge are expected to have minimal variation in EBITDA due to declines in natural gas prices. The steady nature of cash flow from these entities is evident in recent announcement of dividend increases for these companies. Williams increased its dividend by 5%, Enbridge raised its dividend by 3% and Kinder Morgan is expected to increase its cash payout next quarter highlighting the resilience of these business models to changes in natural gas price as well as commodity prices in general.

Finally, the largest operator of U.S. LNG infrastructure is Cheniere Energy. Cheniere's primary business model is a fee-for-service. In fact, 90 to 95% of Cheniere's cash flow is linked to multi-decade contracts with global investment grade rated customers to liquify stated volumes natural gas at a stated price. Cheniere retains a small amount of capacity for commercial purposes. When European natural gas prices trade at multiples of U.S. prices, Cheniere generates additional cash flow from the difference in prices. This occurred in 2022. In 2023, natural gas prices are forecasted to be lower and the spread between European and U.S. prices is expected to narrow so Cheniere will likely have a lower contribution from its commercial activities in 2023 compared to 2022. However, we see the value in Cheniere to be its multi-decade contracts. Lower natural gas prices in the U.S. will likely boost global LNG demand and could result in additional long term contracts boosting Cheniere's free cash flow per share run rate.

If you have additional questions regarding natural gas prices or any other topics in the energy sector, please let us know.

Thanks for listening and have a great day!

**Thank you for joining us. And stay tuned for our next episode. Have topics you want covered or other feedback to share? Write us at info@tortoiseecofin.com.**

**Earnings Before Interest, Taxes, Depreciation and Amortization** (**EBITDA**) is a non-GAAP measure used to provide an approximation of a company's profitability. This measure excludes the potential distortion that accounting and financing rules April have on a company's earnings; therefore, EBITDA is a useful tool when comparing companies that incur large amounts of depreciation expense because it excludes these non-cash items which could understate the company's true performance.

**Liquefied Natural Gas** (**LNG**) is natural gas that has been cooled to a liquid state for shipping and storage - the volume in this state is about 600 times smaller than in its gaseous state, able to transport for much longer distances when pipeline transport is not feasible.

***Disclaimer:*** *Nothing contained in this communication constitutes tax, legal, or investment advice. Investors must consult their tax advisor or legal counsel for advice and information concerning their particular situation. This podcast contains certain statements that may include "forward-looking statements." All statements, other than statements of historical fact, included herein are "forward-looking statements." Although we believe that the expectations reflected in these forward-looking statements are reasonable, they do involve assumptions, risks and uncertainties, and these expectations may prove to be incorrect. Actual events could differ materially from those anticipated in these forward-looking statements as a result of a variety of factors. You should not place undue reliance on these forward-looking statements. This podcast reflects our views and opinions as of the date herein, which are subject to change at any time based on market and other conditions. We disclaim any responsibility to update these views. These views should not be relied on as investment advice or an indication of trading intention. Discussion or analysis of any specific company-related news or investment sectors are meant primarily as a result of recent newsworthy events surrounding those companies or by way of providing updates on certain sectors of the market. Through our family of registered investment advisers, we provide investment advice to related funds and others that includes investment into those sectors or companies discussed in these podcasts. As a result, we stand to beneficially profit from any rise in value from many of the companies mentioned herein including companies within the investment sectors broadly discussed.*

© 2023 TortoiseEcofin