

RCB BANK Trust & Wealth Management

EUROPE'S ENERGY CRISIS

Since the early months of the Russia-Ukraine war, an energy crisis has been brewing in Europe that is having widespread consequences across the globe. Reduced natural gas flow from Russia to Europe forced many European countries into a scramble to build their energy reserves before the winter hits. This situation arose after Europe's economic sanctions against Russia following its invasion of Ukraine led Moscow to retaliate by restricting its natural gas flow to Europe to roughly one-tenth of the amount exported earlier in the year. Natural gas flows in the Nord Stream pipeline, which carries gas from Russia to Germany, have been completely cut off since August. The lack of Russian natural gas is very problematic for Europe since close to 40% of the region's natural gas consumed in 2021 came from Russia, according to the International Energy Agency (IEA).

European Union (EU) countries turned to purchasing liquified natural gas (LNG) on the global spot market this summer to mitigate their reliance on Russian energy. According to J.P. Morgan, European LNG imports averaged 6.5 billion cubic meters (bcm) per month during the first seven months of the year, compared to a monthly average of 1.9 bcm during 2019 and 2020. Europe's increased demand for LNG in the global spot market led to LNG prices skyrocketing in Europe and doubling in Asia and the U.S. The Title Transfer Facility (TTF) LNG price, the European benchmark price for LNG, reached €311 per megawatt hour (Mwh) in August, up 255% compared to €87.50 Mwh the day before Russia invaded Ukraine. The August TTF LNG price was more than three times higher than the five-year average. LNG prices have fallen to under €150 Mwh since the August peak due to warmer weather reducing demand and many European nations' deciding to fill their gas storage facilities at a quicker pace than in recent years. EU countries are also ramping up their use of other forms of energy, such as coal, to help plug the energy supply gap. There have been discussions about using more nuclear and renewable energy but increasing capacity for those forms of energy takes longer.

EUROPE'S RESPONSE

EU countries have pledged around \$700 billion to help citizens and businesses deal with soaring energy costs, amounting to roughly 80% of the the EU's \$857 billion COVID-19 stimulus package. The EU also proposed implementing a temporary price cap on LNG imports to limit the economic damage from unprecedented high prices. However, some EU countries have criticized the price cap idea because it could jeopardize their gas supply. Germany argued that a price cap may lead to gas suppliers redirecting shipments to other countries that will pay a higher price. Warnings from gas companies about redirecting shipments if a price cap is implemented underscored German concerns.

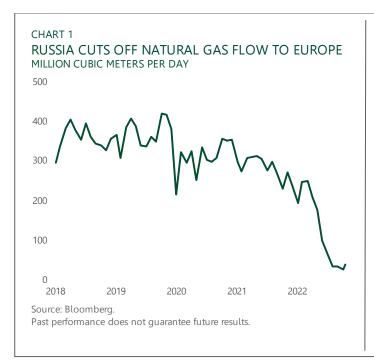
Governments across the European continent are taking drastic steps to reduce energy demand to conserve reserves and hopefully avoid the need for rolling blackouts. Several countries are limiting heating in buildings and houses to a maximum temperature of 66 degrees Fahrenheit. France plans to cut power to water heaters for millions of citizens between noon and 2pm and reduce driving speed limits. Germany banned heating swimming pools.

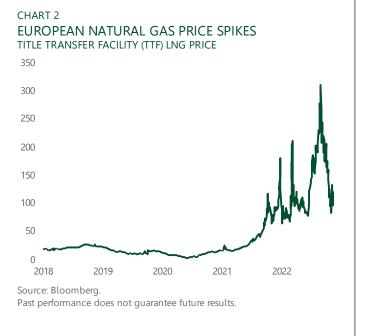
EUROPE'S ENERGY OUTLOOK

Europe's sprint to fill its gas storage has likely put the region in a comfortable position to make it through this winter. The EU's gas storage is 95.3% full, well ahead of their 80% target by November 1, and above the 90% average over 2017-2021. The EU has additional floating storage with around 60 LNG tankers, representing about 10% of the global LNG ships, anchored on its northwest coast waiting to unload. The record number of tankers has created long lines and overwhelmed Europe's regasification facilities, which change LNG from liquid back to gas.

Bloomberg energy analysts estimate that higher LNG prices and a slowing economy will reduce Europe's winter gas demand by around 16% compared to the five-year average. Despite ample storage and potentially reduced winter demand, the IEA warns that a lack of Russian gas could lead to supply disruptions for the EU early next year. The IEA projects storage levels could fall below 30% by next February or March. Storage levels below 30% can cause supply disruptions because the drop in reservoir pressure significantly reduces the withdrawal ability of storage sites.

In the first half of 2023, the EU will face a renewed scramble to refill storage facilities before the winter of 2023. Refilling storage facilities next year will likely be a tougher challenge because the region benefitted from key factors that are unlikely to persist. First, Russian gas flows to Europe were normal during most of the first half of 2022.





The IEA estimates that gas flows from Russia will total 60 bcm in 2022, an amount that is unlikely to be reached next year since Russia dramatically reduced its gas supplies to Europe. Second, China's strict COVID lockdowns and weaker economy reduced its LNG demand and created more LNG availability for the EU. If Russia completely halts gas flows to Europe, and China's LNG demand recovers to 2021 levels, the IEA projects the EU could face an LNG supply shortage around 30 bcm next year. That amount is equivalent to half the gas needed to refill storage facilities to 95% capacity before the winter. Goldman Sachs energy analysts forecast LNG prices will surge higher again next summer as the EU rebuilds their storage and China's demand recovers.

ECONOMIC IMPACT

High energy prices are constraining many areas of the EU economy including consumer spending and manufacturing. Some steel, aluminum, and chemical producers reduced or halted production because high electricity prices made their energy-intensive production unaffordable. The S&P Euro Area Manufacturing Purchasing Managers' Index (PMI) is near a decade low, on par with the level seen during the tail end of the European Debt Crisis in 2012. Bloomberg economists forecast that the economic headwind from higher energy prices and European Central Bank rate hikes could push the EU economy into a mild recession from the fourth quarter through early 2023. Bloomberg's Chief Economist Anna Wong projects that a mild European recession could spill over to the global economy and reduce U.S. economic growth by 0.3% next year. A more severe European recession could reduce U.S. economic growth next year by 1.0%.

GLOBAL REPERCUSSIONS

Europe's ravenous energy demand is disrupting the global LNG market as the region draws fuel supplies away from less wealthy countries. Emerging countries have found

themselves in an unfavorable situation competing for energy supplies with European nations several times their size. Recent attempts by India and Thailand to secure long-term LNG shipment agreements failed because suppliers are focusing on Europe where they can get higher prices and are exposed to less credit risk. The stronger U.S. dollar has complicated the situation as emerging nation governments and corporations face increasingly expensive payments on U.S. dollar denominated debt. Many countries have also seen their foreign exchange reserves plummet to multi-year lows amid battles to stabilize their currencies. Pakistan's drop in reserves led to Moody's credit rating agency lowering the country's rating deeper in non-investment grade. Energy suppliers have become more cautious about dealing with emerging countries that face a higher risk of default. Some countries have turned to buying more gas and oil from Russia, but a lack of pipeline infrastructure and shortage of LNG ships is limiting the supply. Energy shortages in emerging countries could exacerbate their economic challenges if they lead to businesses closing and rolling blackouts. Kulit Sombatsiri, Thailand's Energy Minister, said high LNG prices could force the government to consider measures to close high-energy businesses.

CONCLUSION

Despite Russia cutting off most of its natural gas flow, Europe built its gas storage high enough to likely make it through this winter. However, rebuilding storage levels next year will likely be more challenging and may not result in another successful round of restocking before the winter. Europe's aggressive buying of LNG in recent months drove energy prices higher which is weighing heavily on the euro area economy and could cause a recession that drags on the U.S. economy. The future of the European energy crisis remains uncertain due to multiple variables including the severity of winter weather, the war in Ukraine, EU economic growth levels, and the strength of China's likely economic recovery.

ECONOMY

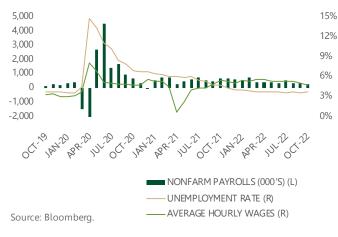
GDP AND CONSUMER PRICES DECEMBER 2019 THROUGH SEPTEMBER 2022 8% 35% // 6% 10% 5% 4% 0% 2% -5% 0% MAR. 22 MR.27 17H-57 OFC2 5EP 22 GDP INDEX (QUARTERLY) (L) CORE CPI INDEX (MONTHLY) (R) Source: Bloomberg. CORE PCE INDEX (MONTHLY) (R)

After two consecutive quarters of negative GDP growth, the U.S. economy bounced back in the third quarter at an annualized pace of 2.6%. Consumer spending slowed slightly but remained resilient, and imports suffered their steepest drop since lockdowns, which was a boost to GDP.

Inflation remained stubbornly high in September. Core CPI increased to 6.6% from a year ago compared to 6.3% in the prior month and Core PCE increased to 5.1% over the same period from 4.9%.

In his press conference following the Fed's early November meeting, Fed Chairman Jerome Powell dismissed the idea of pausing rate hikes soon. Powell's comments were interpreted as being more aggressive than market participants expected; however, Powell indicated smaller rate hike conversations will likely happen in upcoming meetings.

LABOR MARKET OCTOBER 2019 THROUGH OCTOBER 2022



The U.S. labor market continued to add jobs at a steady pace in October with nonfarm payrolls gaining 261,000 jobs. This exceeded the median estimate of 193,000 from Bloomberg's survey of economists. Notable job gainers by industry included health care, professional and technical services, and leisure and hospitality.

The unemployment rate ticked up to 3.7% from 3.5% in the prior month and the participation rate hardly changed at 62.2%. Average hourly earnings growth slowed to 4.7%, the lowest year-over-year reading since August 2021. Slowing wage growth is an encouraging sign for the Fed since officials have been concerned strong wage growth could fuel inflation.

HOUSING, AUTO AND RETAIL SALES OCTOBER 2013 THROUGH OCTOBER 2022



Easing supply chain shortages helped vehicle sales rise in October at a seasonally adjusted annualized rate of 14.90 million units. Customer demand has remained high despite the lack of discounts or incentives from dealerships.

U.S. retail sales remained at an above-trend growth rate in September with a year-over-year increase of 8.20%. Consumers have increasingly relied on credit cards and savings to deal with rising prices and remain more conscious of discretionary spending as price pressures continue.

Sales of previously owned homes were down 23.79% in September. Rising mortgage rates have contributed to existing homes sales declining for eight straight months, the longest stretch since 2007. The average 30-year fixed mortgage rate is at a two-decade high around 7%.

EQUITY

TRAILING 12-MONTH EQUITY RETURNS PRICE APPRECIATION, OCTOBER 2021 THROUGH OCTOBER 2022

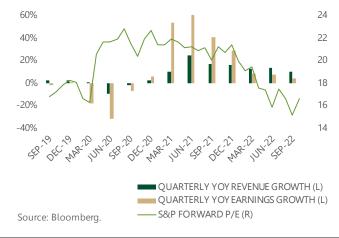


Source: Bloomberg. Past performance is no guarantee of future results.

Global equities mounted a relief rally in October after two consecutive months of declines. Investor sentiment improved moderately amid hopes that the Fed may pivot to smaller rate hikes in the coming months. The S&P 500's 8.10% gain was the index's second strongest month since November 2020, behind July when stocks saw a similar relief rally.

The MSCI Emerging Market (EM) index did not participate in the rally. Most EM countries posted positive returns, but MSCI China fell 16.81% in the month. Chinese stocks' weakness was driven by concerns about ongoing COVID lockdowns and President Xi Jinping consolidating his power by stacking key positions with allies at the country's Congress Party held every five years.

S&P 500 YOY EARNINGS & REVENUE GROWTH BY QUARTER, SEPTEMBER 2019 THROUGH OCTOBER 2022

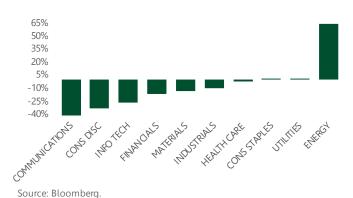


Third quarter earnings reporting season is past the halfway mark as 268 companies in the S&P 500 have reported results. Earnings growth continues to slow with the S&P 500 on track for 3.79% growth, which is better than analysts' forecast for 2.57% growth. Excluding outlier growth in the energy sector, earnings are trending toward a second consecutive earnings contraction with a 3.47% decline.

Sales are holding up better than earnings. S&P 500 sales are on track for 9.66% growth (6.75% excluding energy) compared to analysts' projection for 8.67% growth (6.31% excluding energy).

Inflation and supply chain challenges continue to pressure margins. S&P 500 operating margin of 15.90% is below analysts' forecast for 16.30% and below margins a year ago of 16.20%.

S&P 500 SECTORS 12-MONTH PRICE RETURNS OCTOBER 2021 THROUGH OCTOBER 2022



All S&P 500 sectors had positive monthly performance for the second time this year. The energy sector led with a 24.96% monthly gain, which was more than 10% above the second-best sector performance. The price of West Texas Intermediate (WTI) crude oil rebounded 8.86% in October after declining by over a third during the prior four months. Oil prices received support from the Organization of the Petroleum Exporting Countries (OPEC) agreeing to reduce oil production by 2 million barrels per day.

Communications was the worst performing sector with a 0.14% monthly gain. The 31.34% decline in shares of Facebook parent company, Meta (META), weighed on the sector. META plunged 25% after reporting third quarter earnings that missed analysts' forecast and included a revenue decline for a second consecutive quarter.

FIXED INCOME

CURRENT YIELD CURVES YIELD CURVES AS OF OCTOBER 2022 8% 7% 6% 5% 4% 3% 2% 1% 0% 5 10 **AGENCIES** - A CORPORATES **TREASURIES** A TAXABLE MUNIS ---- HIGH YIELD

Source: Bloomberg. Past performance is no guarantee of future results.

The U.S. Treasury yield curve continued its bear-flattening trend in October as elevated inflation kept pressure on the Fed to maintain its aggressive rate hikes. Yields on 1-year Treasuries increased 0.65% to 4.63%, while yields on 10-year Treasuries increased 0.22% to 4.05%.

Fed funds futures as of October 31 indicate investors expect the Fed's policy rate will reach 4.98% in May of 2023, 0.46% greater than the projection of 4.52% just a month prior.

The Fed's preferred recession probability indicator, the spread between 10-year Treasury bonds and 3-month Treasury note yields, closed October inverted at 0.01%. The last time the spread was inverted was in January 2020, just prior to the short-lived COVID-19 recession.

12-MONTH RETURNS, TAXABLE BOND SEGMENTS OCTOBER 2021 THROUGH OCTOBER 2022



Source: Bloomberg. Past performance is no guarantee of future results.

Fed rate hikes to the current range of 2.25% to 2.50% from a range of 0% to 0.25% at the start of the year and expectations for rates to approach 5.0% by next summer have caused all the bond segments shown in the accompanying chart to experience sizable negative 12month returns of at least 8.5%.

Acute U.S. dollar strength over the last 12 months has enabled domestic high yield corporate bonds to significantly outperform emerging market bonds despite both segments' similar credit quality.

The two highest quality bond segments in the accompanying chart, U.S. Treasuries and U.S. Agencies, have held up best so far in 2022 as market interest rates climbed and credit spreads widened.

FED BALANCE SHEET EXPANSION AND CREDIT SPREADS OCTOBER 2021 THROUGH OCTOBER 2022



Source: Bloomberg.

The Fed's balance sheet has shrunk by about \$240 billion over the last seven months after expanding by 112% from \$4.2 trillion in February 2020 to nearly 9.0 trillion in April 2022.

According to the Fed's projections, its balance sheet will be reduced by \$522.5 billion this year to roughly \$8.375 trillion, a modest 5.87% decrease. In 2023, the balance sheet is projected to shrink by \$1.14 trillion to around \$7.235 trillion, a 13.6% decrease.

U.S. corporate high yield, BBB-rated, and single A-rated credit spreads compressed in October in response to strong third quarter corporate earnings results. However, all three spreads remain wider than their highest levels in all of 2019.

ALTERNATIVES

ALTERNATIVES, 12-MONTH RETURNS OCTOBER 2021 THROUGH OCTOBER 2022 40% 30% 20% 10% 0% -10% -20% -30% OCT-21 APR-22 JUL-22 OCT-22 JAN-22 -S&P GS COMMODITY -HFRX GLOBAL HEDGE FUND -HFRX MERGER ARBITRAGE HFRX EQUITY HEDGE -S&P 500 -BLOOMBERGINT, U.S. G/C

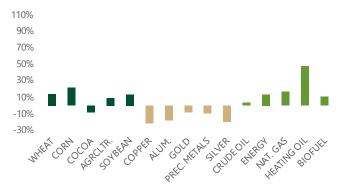
Source: Bloomberg. Past performance is no guarantee of future results.

The S&P GSCI Total Return Index, a measure of the broad commodities asset class, climbed 4.8% in August to recover roughly half of its 8.7% loss in September. An exceptionally strong U.S. dollar and slowing manufacturing activity in a growing number of countries have weighed on the price of crude oil and most industrial metals in recent months.

Year to date through October 31, the HFRX Equity Hedge Index (-3.81%) and HFRX Event Driven Merger Arbitrage Index (-0.79%) have held up better than both the S&P 500 (-17.72%) and the Bloomberg Intermediate Government/Credit Index (-10.02%).

HFR reported that institutional investors withdrew an estimated \$26.0 billion from hedge funds in the third quarter, as total industry capital declined to \$3.78 trillion.

COMMODITIES, 12-MONTH SPOT RETURNS OCTOBER 2021 THROUGH OCTOBER 2022



Source: Bloomberg. Past performance is no guarantee of future results.

West Texas Intermediate (WTI) crude oil traded between \$80 and \$90 per barrel in October. A recent 2 million barrel-per-day cut in production quotas from OPEC and its Russia-led allies offset weak demand from China and the continuation of releases from the U.S. Strategic Petroleum Reserve.

Lower projected crop yields in the U.S. pushed corn and soybean prices moderately higher in October. Wheat prices experienced a sharp bout of volatility surrounding Russia's short-lived withdraw from the Black Sea safe-passage agreement for transporting grain to global markets.

A hawkish tone from Fed officials and U.S. dollar strength pushed gold to a seventh straight monthly decline in October. The precious metal has retreated 15.7% over the seven months spanning April through October.

Investment products are not insured by the FDIC. Not a deposit or other obligation of, or guaranteed by the depository institution. Subject to investment risks, including possible loss of the principal amount invested. Ask for details.