Rising costs worsen the credit outlook of global renewable energy firms

by Amrita Parab

- **NUS-CRI Agg PD of global renewable energy firms rises on the back of rising operating and financing costs, contrasting the trend faced by their oil and gas counterparts**
- **NUS-CRI Agg Forward PD for renewable energy firms indicates a further deterioration in credit health as a worsening operating environment, in conjunction with higher-for-longer interest rates, impacts the industry's profitability prospects and financing capabilities**

The global commitment to renewable energy is encountering unprecedented challenges. The renewable energy segment, which previously benefited from lower costs, surge in available capital, and government support, is now facing disruptions in supply chains and financing challenges marked by steepened borrowing costs globally. Resultantly, as seen from the NUS-CRI Aggregate (median) 1-year Probability of Default (Agg PD) in Figure 1a, the credit risk profile of Global renewable energy firms has gradually worsened over the past two years, transitioning into the non-investment grade territory. This trend starkly contrasts that of the historical Agg PD of Global oil & gas firms whose credit profiles have improved due in part to persistent strength in oil and gas prices. As such, the NUS-CRI Aggregate (median) Forward 1-year Probability of Default (Forward PD[1]) in Figure 1b indicates that the credit health of Global renewable energy firms may continue to experience further deterioration driven by higher cost of capital and increased working capital requirements, as the Forward PD may potentially cross the BB+ upper bound over the next 6 months when referenced to PDiR2.0 bounds.

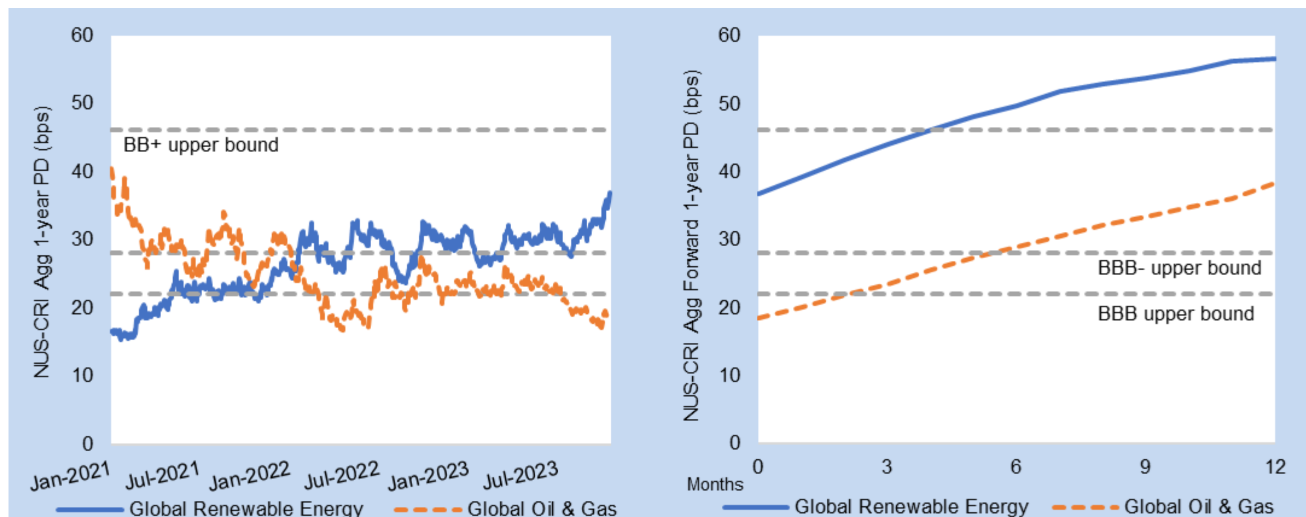

Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for Global renewable energy and Global oil & gas firms with reference to PDiR2.0[2] bounds. Figure 1b (RHS): NUS-CRI Agg (median) Forward 1-year PD for Global renewable energy corporates as of Oct-2023, with reference to PDiR2.0 bounds. *Source: NUS-CRI*

Higher borrowing costs are presenting significant hurdles for renewables attempting to manage longer-term debt servicing obligations amid heightened expenses. Despite being the most affordable energy sources, solar and wind power projects entail substantial initial installation costs compared to gas-fired plants. In a worsening operating environment, access to capital from public markets is adversely impacted due to investor perception of lower returns, as has been the case for renewable energy firms. This financial landscape becomes increasingly challenging as renewable energy entities face decreasing valuations, complicating their access to public markets for funding. The MSCI Global Alternative Energy Index has fallen by approximately 41% over the

[1] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted as similar to a forward interest rate. For example, the 6-month Forward 1-year PD is the probability that the firm defaults during the period from 6 months onwards to 18 months, conditional on the firm's survival in the next 6 months.

[2] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation by mapping the NUS-CRI 1-year PDs to the S&P letter grades. The method targets S&P's historical credit rating migration experience exhibited by its global corporate rating pool instead of relying solely on the reported default rates.

past year while the oil & gas heavy S&P 500 Energy Index has actually seen an increase of 3.56% over the same period. Investors have been withdrawing capital from green stocks (see Figure 2a), resulting in a global market capitalization decline of more than USD 1.1 bn since December 2022. Funding from bond markets has also become difficult as the higher borrowing costs hamper companies' capital-raising plans. The Bloomberg Green Bond index for alternative energy in Figure 2b highlights the pain imposed on renewable firm balance sheets by an almost 4 percentage point hike in financing costs since the start of 2021.

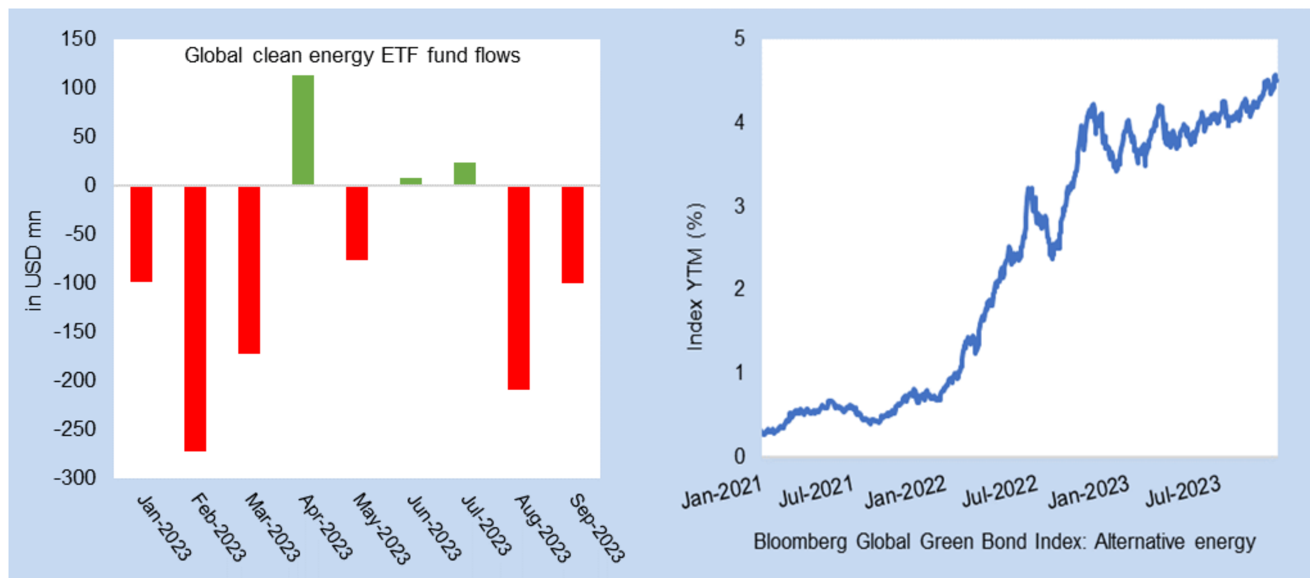

Figure 2a (LHS): Global clean energy ETF flows in USD mn. Figure 2b (RHS): Yield to maturity (%) of the Bloomberg Global Green bond index: Alternative energy *Source: Bloomberg*

Rising interest rates pose a significant challenge for renewable energy investments, particularly as clean energy initiatives like solar and wind farms require substantial initial capital. Inflation has a multitude of effects on the renewables industry, including driving up both construction costs and the expenses associated with borrowing. For instance, there's been a surge in the average capital expenditure for renewable energy infrastructure—wind turbine costs have reportedly soared by approximately 38%, and solar installation expenses have risen by around 8% in Jun-2023 as compared to levels seen in 2021. In contrast, traditional energy sources, such as gas and coal, are less affected as their expenses are more linked to fuel costs than initial capital outlay. Persistent geopolitical tensions and supply cuts by OPEC have managed to maintain the revenue generation capabilities of oil and gas firms, allowing them to manage their debt obligations effectively.

The rising operational costs of renewable energy projects are also impeding the capacity expansion and profitability of firms in the sector. Firstly, the pandemic-associated challenges disrupted growth in the renewable energy industry, increasing costs as manufacturing and logistics of clean-energy parts produced in Asia reduced[3]. The situation worsened with the onset of the Russia-Ukraine war in 2022, causing commodity price surges and incentivizing countries to increase their stock of traditional energy sources. In countries such as the United States, additional hurdles arise from protectionist policies raising the costs of importing clean-energy components. Moreover, increasing labor costs, bureaucratic delays in permitting projects, and grid connectivity issues are inflating expenses for solar and wind project constructions, straining profitability prospects for the industry. The levelized cost of wind and solar energy, a widely used industry metric that reflects construction, fuel, and financing costs, witnessed an increase for the first time in 2023. For instance, the levelized cost of energy for solar projects jumped to USD 60 per MWh in May 2023 from USD 38 per MWh seen in 2021. To survive the worsening operating and financing environment, numerous developers have had to re-negotiate their long-term contracts to stay solvent at unfavorable terms, posing a long-term structural risk to the credit profile of the renewable energy industry.

Government subsidies and incentives provide essential support for firms in the renewable energy space. However, as inflation continues to pose a significant headwind to global economies, central bankers may strive to hold rates at higher levels for a longer period. Consequently, renewable energy firms may witness further increases in their levelized cost of energy amidst an uptick in global recessionary risks that are likely to result in squeezed margins and slower expansions, weighing on the industry's credit health as indicated by the Forward PD in Figure 1b.

[3] The cost of wind power projects has increased primarily due to the higher price of steel used to manufacture the blades of the massive turbines. Similarly, the lithium-ion batteries that power most electric vehicles have also become less cost-effective.

Credit News

As US debt surges, Europe brings its own under control

Oct 22. Amid the COVID-19 pandemic, both the US and Europe accrued substantial debt. However, a stark divergence has materialized: the US maintains soaring deficits, while Europe is set to significantly shrink its deficits. Unlike a decade ago when some eurozone nations teetered on default due to the global financial crisis, European governments have enforced discipline, adhering to eurozone rules, in contrast to the US's lack of spending control. The IMF foresees declining eurozone deficits while US deficits rise. Europe's shift is attributed to the conclusion of emergency support and persistent memories of the debt crisis. The UK seeks deficit reduction through tax hikes, while Italy and France plan slower reductions, risking European Commission rule breaches. (WSJ)

Private equity firms forced to kick in more cash to shore up portfolio companies

Oct 20. Rising interest rates have disrupted the private equity landscape, compelling firms to inject more equity into their portfolio companies for survival. As credit costs surge, lenders demand additional equity from private equity sponsors during refinancing. Private equity traditionally aimed to minimize equity investment, maximize leverage, and reduce risk. However, banks and private credit providers now insist on substantial equity contributions. This shift poses challenges, such as deciding which firms warrant more equity and its impact on profits and losses amid higher interest rates and dwindling deal-making. Though refinancing offers temporary relief, borrowing costs remain high, compelling firms to increase equity during refinancing. It signifies a shift from financial engineering to focus on operational improvements in the private equity industry. (WSJ)

China property bonds looked cheap at 20 cents on the dollar. They weren't.

Oct 17. China's distressed property market, beset by a prolonged slowdown, has presented a challenge for distressed debt investors who sought a multibillion-dollar opportunity amid the sector's turmoil. Despite a wave of defaults, only a few Chinese property companies have managed to repay investors. Most bonds from these companies are trading well below their face value, creating a market that's "lost patience." China's government's involvement and uncertainty in the property market's future have complicated negotiations. Investors who initially rushed into the sector are now realizing that restructuring will be heavily influenced by the government. While successful distressed-debt investing is possible in China's property sector, timing, and entry price are critical factors. (WSJ)

Investors demand highest premium in years to hold risky European debt

Oct 22. The riskiest corporate borrowers in Europe are facing the highest premium to access the region's EUR 412bn junk bond market in seven years. The spread, indicating the gap between yields on euro-denominated corporate debt rated triple C or lower and government bonds, has widened to over 18% on average, the largest since June 2016. This reflects concerns that persistently high interest rates and an economic slowdown could lead to more defaults. The economic backdrop in Europe is viewed as less favorable than in the US, contributing to these concerns. Additionally, Europe's high-yield bond market faces structural issues that lead to sharper moves compared to the US market. European companies experiencing recent bond or loan defaults include French retailer Casino Guichard-Perrachon, Netherlands-based manufacturer Keter, and Belgium-based Ideal. (FT)

Investors snap up fixed income ETFs despite bond rout

Oct 23. Investors are flocking to fixed income exchange-traded funds (ETFs) in pursuit of higher yields despite a broader bond market sell-off and the anticipation of higher-for-longer interest rates. Fixed income ETFs in the US and Europe attracted a record USD 235bn in net inflows in the first three quarters of this year, up from USD 169bn in the same period last year. The trend continued into October, with USD 13.4bn in net flows in the first 13 days. The appeal lies in higher yields and their growing popularity as investment tools. However, rising yields have resulted in declining bond prices, particularly in long-dated maturities. While inflows have been significant, some investors are cautious about high-yield ETFs due to rising credit

risk and are exploring other options like Treasury floating rate notes and index-linked government bonds to hedge against inflation. (FT)

Wall Street notches weekly loss as benchmark US bond yield eases (Reuters)

Hong Kong property market woes pile pressure on government (Nikkei Asia)

Japan's property market shows signs of overheating: BOJ (Business Times)

Regulatory Updates

Rising yields may pressure BOJ to consider raising newly set cap

Oct 23. The Bank of Japan (BOJ) is facing increased pressure to modify its bond yield control as global interest rates surge. Whether this change occurs depends on market developments leading up to the policy meeting at the end of this month. The BOJ's yield curve control (YCC) has been a global outlier, maintaining ultra-loose monetary stimulus while other central banks have raised rates to fight an uptick in inflation. Rising U.S. bond yields are pushing Japanese rates higher, making it challenging for the BOJ to keep local interest rates low. Modifications to the YCC could include raising the yield cap or changing the commitment to defend a set yield level. Some BOJ members oppose moves that might suggest an exit from ultra-loose policy. Most analysts expect the BOJ to abandon YCC by the end of 2024 and end negative rates next year. (Reuters)

US banking regulators extend feedback window for contentious capital proposal

Oct 21. The Federal Reserve, FDIC, and OCC are extending the public comment period for the "Basel endgame" proposal to raise bank capital requirements. The comment period, originally set to end on Nov 30, 2023, will now conclude on Jan 16, 2024. This move provides more time for stakeholders to analyze and provide feedback on the proposal, which has faced strong opposition from the banking industry. Banks argue that the proposal is overly burdensome and unnecessary, warning that it could lead to reduced lending, restricted product offerings, and harm earnings potential. The "Basel Endgame" proposal aims to implement international capital standards agreed upon by the Basel Committee on Banking Supervision in the wake of the global financial crisis of 2008, reshaping how banks assess risk and determine required reserves. This extension comes after previous complaints from banks regarding insufficient analysis conducted by the Fed before proposing the rules. (Reuters)

Indonesia's central bank surprises with rate hike (WSJ)

China seeks to lower homebuyers' interest payments to boost spending (Nikkei Asia)

Published weekly by Credit Research Initiative – NUS | Disclaimer
Contributing Editors: Raghav Mathur , Chenye Wang