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Worsening demand amidst current supply chain hurdles deteriorate the credit risk outlook for the European automotive industry

by Amrita Parab

- **NUS-CRI Agg 1-year PD of European automotive industry trends upwards as demand dips and supply side pressures heighten credit risk**
- **NUS-CRI Agg Forward 1-year PD demonstrates an upward trajectory driven by higher refinancing costs and lower profitability prospects**

The European automotive industry is poised for yet another YoY drop in sales in 2022 as warned by the European Automobile Manufacturers' Association, remaining around 26% below pre-pandemic levels. The European automotive industry, which was already facing supply-side constraints brought on by the Russia-Ukraine war as well as the global semiconductor shortage, now faces additional demand-side pressures as surging inflation in the price of motor cars (See Figure 1a) and higher vehicle financing costs weigh on consumer sentiments. As seen from the NUS-CRI 1-year Aggregate (median) Probability of Default (Agg PD) for the European automotive industry in Figure 1a, aggregate credit risk for the industry has been steadily increasing over the past year, with the Agg PD crossing the BBB- upper bound into high-yield territory as proxied by PDiR2.0.[1] The NUS-CRI Aggregate (median) Forward 1-year Probability of Default (Forward PD[2]) in Figure 1b further highlights a worsening trajectory for the industry's credit outlook over the coming 24 months when interest rate hikes are expected to gather steam, in the face of a structural increase in costs of operations as the industry increases its capital expenditures linked to EV transition amidst a worsening financing environment.

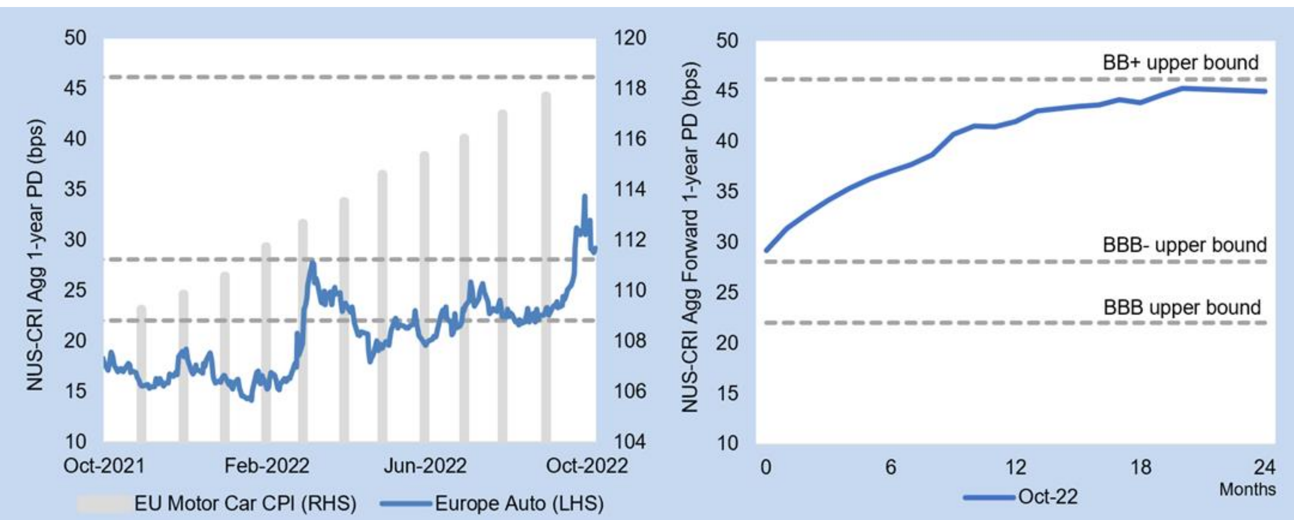

Figure 1a (LHS): NUS-CRI Agg (median) 1-year PD for European automotive industry, with reference to PDiR2.0 bounds from Oct-2021 to Oct-2022; EU Motor Car CPI index. Figure 1b (RHS): NUS-CRI Agg (median) Forward 1-year PD for European automotive industry as of Oct-2022, with reference to PDiR2.0 bounds. *Source: NUS-CRI, Bloomberg*

The credit outlook for Europe's automotive industry looks bleak as rising costs and a slowing revenue threaten margins and cash generation. As Europe stands on the brink of a recession and with consumers already battling a severe cost of living crisis, consumer confidence across Europe has tumbled to an all-time low, signaling a reluctance towards discretionary purchases such as automobiles. With household debt at elevated[3] levels, central banks' commitment to hiking interest rates may squeeze household disposable income further as interest

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[1] The Probability of Default implied Rating version 2.0 (PDiR2.0) provides a more familiar interpretation through 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.
[2] The Forward PD estimates the credit risk of a company in a future period, which can be interpreted similarly 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 – this is conditional on the firm's survival in the next 6 months.
[3] For eg: Households debt in the Euro Area increased to 96.2% of gross income in Q1 2022.

burdens increase amidst an inflationary environment. Car sales which were previously supported by the availability of low-cost credit now face hindrances as borrowing costs increase and fears of a potential increase in delinquency lower households' access to vehicle financing. Fortunately, automakers have managed to protect margins thus far by concentrating on the production and sale of high-profit margin vehicles to offset the loss of revenue stemming from the dip in sales volumes. However, moving forward, a continued drop in sales volumes due to rising car prices (as seen in Figure 1a) may not be able to offset the potential gains of selling high-margin vehicles, impacting the industry's profitability and cash flows. Going forward, to stimulate demand and retain market share, firms may be forced to resort to pricing tactics which will eventually contribute to lower margins. In addition to dampening demand, higher inflation continues to raise manufacturing costs, which had been elevated since the beginning of 2022 due to chip shortages[4] and supply shortages linked to geopolitical tensions. The incumbent cost of living crisis weighs on demand while at the same time translating to an increase in labor costs as companies are compelled to support workers financially to help them tide over the crisis. Energy shortages have also led to smelter shutdowns eventually causing commodity shortages and resulting in higher costs of raw materials due to constrained supply. These phenomena have already started to heighten the credit risk of the European Auto industry, and with the lagged effects expected to continue into the next few years, it is not surprising to see their credit risk outlook worsen further.

Despite contracting sales and rising costs, European auto companies have had to continue investing in R&D and shift operations towards a greener production line as mandated by regulations. Electric vehicle manufacturing is inherently costlier, more so in the current environment where raw material costs have skyrocketed. The average cost of raw materials for EV production has jumped 144% from pre-pandemic levels driven by costs of lithium, cobalt, and nickel which are essential in EV battery manufacturing. If the current situation persists, should auto companies be able to comply with aggressive standards and deadlines[5] set by regulators, they may potentially add further downward pressure on their margins by having to absorb higher production costs. On the flip side, should they delay the transition, they risk the loss of market share from international rivals. Competitors such as Chinese EV manufacturers have set their sights on capitalizing on Europe's rapid EV transition. Chinese vehicle manufacturers, which have access to a homegrown robust supply chain, pose a challenge to their European counterparts as they benefit from lower costs of production along with better domestic access to raw materials critical in building EVs on a larger scale, challenges that the European auto industry continues to struggle with.

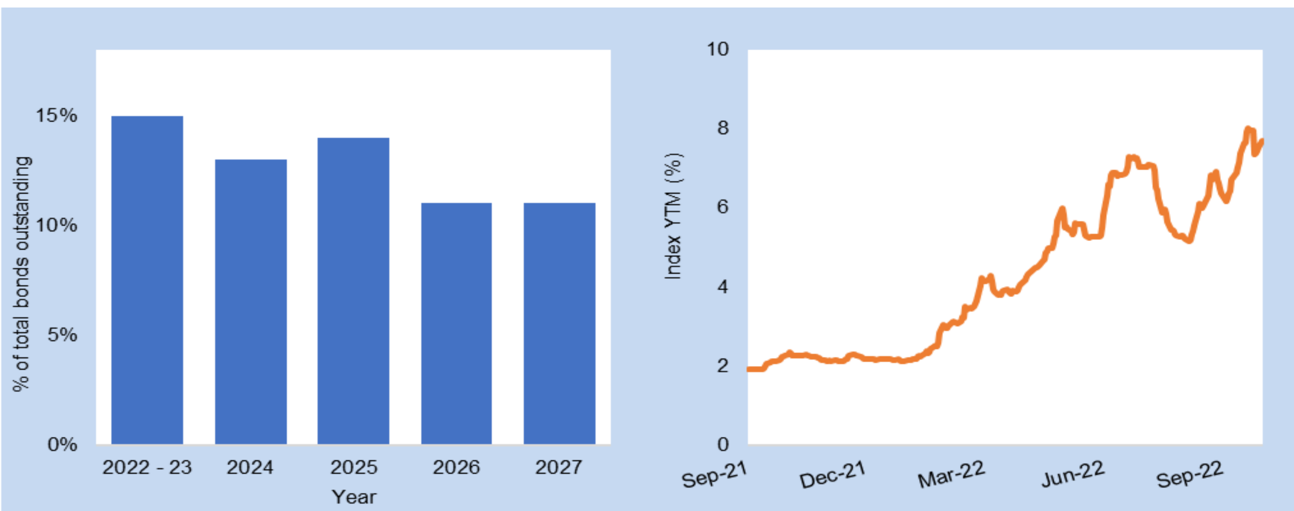

Figure 2a (LHS): Bond maturity as a percentage of total bonds due, over the next five years. Figure 2b (RHS): Index YTM of Bloomberg: Pan - European HY Automotive bond index *Source: Bloomberg*

In light of the increasing costs, the European automotive industry may need to take on additional financing to fund the EV transition. This may weigh on the credit health of the industry which also faces the prospect of refinancing almost 40% of its outstanding debt in the near future (See Figure 2a). Refinancing availability and costs both threaten to pose formidable challenges for the industry as European credit markets remain lackluster with bond issuances at record lows as recession fears potentially build companies' hesitance in issuing new debt securities, while simultaneously keeping investors at bay. Bond issuances for companies in our sample during the first 3 quarters of 2022 declined to USD 3.8 bn, dropping by close to 58% compared to the same period in 2021 (USD 9bn). Given the industry's maturity schedule, the difficult market conditions may potentially push more vulnerable companies to refinance at higher costs and at more restrictive terms. With the current

[4] As per a report by Allianz Research, in 2021 and 2022, the cumulative estimated cost of the semiconductor shortage to the European automotive industry in the form of missed revenue is approximately EUR 100bn.

[5] The EU aims to completely move away from sale of fossil-fuel powered cars by 2035

market implied policy rate expected to rise[6], elevated refinancing pressure has the potential to push vulnerable firms, which already face higher refinancing costs (See Figure 2b), to the brink of default. According to CriAT's iRAP[7] tool, the proportion of firms in our sample categorized as non-investment grade increases by 20 percentage points over the course of the coming 12 months.

In the near future, as indicated by the Forward PD in Figure 1b, credit risk is set to remain elevated, potentially as demand-side pressures continue to build due to persistently high inflation in Europe. Consequently, forecasts indicate that vehicle sales will not return to pre-pandemic levels till 2024 as higher financing costs may continue to deter customers. From a cost perspective, if Europe plans to effect a successful transition to electric vehicles, investments in building a resilient supply chain are necessary. As the proportion of EV production increases, the robustness of supply chains to meet production demand will be tested, failing to do so would cause a recurrence of present-day issues with companies facing supply shortages and higher dependence on foreign suppliers, and vis-a-vis hurting their bottom line. Additionally, should international rivals start capitalizing on the growing demand in Europe for EVs, Europe's domestic automotive industry is unlikely to be competitive in the current environment, potentially contributing to the worsening credit outlook for the industry as seen by the Forward PD.

[6] For instance, the current market implied policy rate for the Eurozone (biggest market segment of the European automotive industry) is expected to go up from the current 0.75% to 2.98% over the coming 2 years. Source: Bloomberg

[7] iRAP (intelligent Risk Analysis Platform) is a software developed by CriAT for conducting both firm-level and portfolio level credit analysis. iRAP utilizes the NUS-CRI Probability of Default (PD) model and links it to the live NUS-CRI database offering PDs on almost 80,000 exchange-listed corporates globally.

Credit News

UK bond markets come under pressure again

Oct 06. The BoE had reduced the volume of sovereign bond purchasing from GBP 1bn a day in the last week to none in the past two days. Despite having been activated by the rapid increase in long-term yields, the BoE emphasized that the intervention was only instituted as a backstop to prevent destabilization of the UK bond market and is not designed to control long-term interest rates. The bond purchasing measure is set to expire on 14-Oct, and investors have expressed concerns about the looming uncertainties, especially with the possibility that the central bank may switch over to reducing its bond holdings as part of its quantitative tightening. (WSJ)

Billions flood into bond ETFs even as default warnings pile up

Oct 05. Since Sep 27, 2022, more than USD 3.3bn of capital has flowed into the iShares iBoxx USD Investment grade corporate bond ETF, marking close to 10% of the ETF's total value. Despite growing concern regarding the worsening economic environment with tighter monetary policy and worsening corporate bond issuance, investors are taking advantage of the relatively cheaper value of investment-grade corporate bonds. Driven by the current low default rates, investors are looking at corporate bonds for companies that have weathered the fallout of the pandemic with robust fundamentals. However, a similar phenomenon is not present in the high-yield market. Companies and investors are pricing in a recession in 2023, which makes allocating heavily in the high-yield market riskier. (Bloomberg)

Era of peak yields signals entry point for emerging-market bets

Oct 10. Amidst the still turbulent global macroeconomic conditions, the expectations that borrowing costs could peak soon might encourage investors to scout potential promising markets to ride towards recovery. This presents an opportunity for bond and equity markets in emerging countries, which are relatively cheaper compared to their developed counterparts. With aggressive monetary policy tightening, inflation is seen to be abating, supporting the notion that inflation has peaked. This development reduces pressure on more developed countries, such as the US, to hike rates. Nonetheless, the market remains cautious about turning bullish too early considering the risk of inflation surprises and the fallout from the Russia-Ukraine war. (Bloomberg)

China's bond market bleeds USD 83bn as foreign investors cut holdings

Oct 07. Foreign investors' capital flight from the Chinese markets is picking up pace as a slowing economy and global interest rate shifts offer better opportunities in other regions. Foreign holding of Chinese bonds dropped by USD 83bn in Aug-2022 for the seventh consecutive month. To make matters worse, investors are also prudent in over-allocating to the Chinese markets given the rise in China's geopolitical tensions, which could account for a 25% drop in overseas holdings of Chinese policy banks such as the Agricultural development bank of China. A similar sell-off is also present in the country's stock markets, with monthly selling exceeding the buys for the third time in 2022. (Nikkei Asia)

Vanguard sees corporate bonds facing pressure as Fed takes toll

Oct 06. As rising rates continue to put pressure on investors' sentiments and threaten business profits, Vanguard sees continued stress on corporate bond prices. All eyes remain on the upcoming Q3 earnings and corresponding guidance towards the year-end. Expectations remain for credit spreads to widen over the next few months while the rate of default goes up. On the bright side, high-grade credit spreads have jumped to their highest since 2021 – providing a substantial return cushion. (Bloomberg)

Britain's shadow banking system is raising serious concerns after bond market storm (CNBC)

Issuers in Japan rush to sell bonds as fears of BOJ shift abound (Bloomberg)

Junk market is only open to familiar firms offering high yields (Bloomberg)

Regulatory Updates

Central banks hoard cash in case they need to save their currencies

Oct 08. Central banks are starting to institute precautionary measures against recession risk and excessive depreciation of their respective currencies by selling off their US treasury holdings, in the face of the strengthening USD. The move resulted in the highest outflow in treasury securities since Mar-2020 and brought the four-week decline in holdings to USD 81bn. The decline in treasury holdings is replaced by cash held in Fed's foreign reverse repurchase agreement facility which had increased by USD 61bn in the same period. (Bloomberg)

US set to impose sweeping export controls to rein in Chinese chipmakers

Oct 05. The US has been preparing to implement sweeping export controls to slow Chinese efforts within the semiconductors and chipmaking equipment space. The controls are the latest effort to prevent China from using US technology to develop military programs, ranging from quantum computing to hypersonic weapons. These new restrictions will make it more difficult for Chinese chips manufacturing to catch up with global peers. (FT)

Thai banks' interest rate hikes spark economic concerns (Nikkei Asia)

Poland unexpectedly halts rate hikes after slowdown hits economy (Bloomberg)

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Contributing Editors: Raghav Mathur, Wang Anyi