PGIM FIXED INCOME

CREDIT RESEARCH ROUNDTABLE

OCTOBER 2019

CREDIT RESEARCH ROUNDTABLE

PGIM Fixed Income's credit research team consists of more than 100 fundamental analysts located in the U.S., Europe, and Asia. The team covers the universe of corporate industries across the investment grade (IG), high yield (HY), and bank loan sectors. The Credit Research Roundtable summarizes views on industries with a recent change in credit fundamentals or trends as well as some other industries of note.

▼ SECTOR VIEWS (CLICK TITLE TO VIEW) ▼

Improving Fundamentals or Trend

European High Yield Retail

The outlook trend for the continental European retail sector appears to be stabilizing after some recent deterioration. An unseasonably hot summer of 2018 left a number of issuers with inventory overhangs that necessitated extended discounting, which eroded gross margins. Looking ahead, the supportive European weather in late summer 2019 makes for some easier comparables and some like-for-like/same-store sales support. The general improvement in inventory positions should support gross margins in the near term.

Although cashflow generation remains limited, leverage is generally flat to declining this year after an increase in 2018.

We continue to favor the more geographically diversified names and niche retailers in value retail and travel, including Dufry, Action, B&M, and fuel retailers, given their solid business models and natural barriers to online disruption.

However, headwinds persist across the sector. As with the broader European high yield market, a bifurcation in quality exists with "better" niche retailers generally trading with spreads at recent tights or towards the first call, while weaker credits are trading at stressed levels considerably below par. Some of the challenged names have little, or no, equity cushion, leaving equity sponsors struggling to find an exit. Structural issues, such as consumers' shift to online shopping, will likely continue to negatively impact issuers' credit profiles over the longer term. Heightened trade tensions may also raise the risk profile and supply chain costs for many retailers.

Fundamentals and trends in the UK retail sector remain far weaker due to ongoing Brexit-related uncertainty and input inflation from GBP depreciation. In 2019, May and June were particularly weak with several clothing retailers describing conditions as "the weakest we have seen" while the British Retail Consortium's market tracker indicated the weakest retail trading since its records began.

North American Investment Grade Consumer Products

The fundamental outlook for consumer product credits is improving on lower year-over-year commodity prices, particularly for pulp and resin (i.e., plastics).

Within non-durable consumer products, revenue growth remains price driven, and product advances continue to allow companies to pass higher prices through to consumers. While private labels also represent a threat to non-durable consumer products companies, the risk is expected to be lower than for food companies given the higher level of innovation and R&D in consumer non-durables. As in food, an emphasis on organic/natural is a big trend in this segment and is putting pressure on some large companies.

Transportation costs and a strong U.S. dollar continue to pose challenges for earnings, prompting companies to ramp up productivity savings in order to offset the pressure. M&A risk and

activist involvement will likely increase going forward, but free cash flow generation remains strong.

Within consumer durables, sales are growing amid a solid housing market and a relatively stable economy. However, tariffs and the late stage of the housing cycle could continue to pressure profitability. Demand in the U.S. is more supportive than in other major economies, including Mexico and China, which saw appliance demand decline in the first half of 2019.

Weakening Fundamentals or Trend

European High Yield Cable

Credit fundamentals in the sector are weakening due to sustained competition in certain regions of Europe.

In most Northern European markets, cable maintains a broadband speed advantage over incumbent telecom operators that offer limited fiber coverage.

However, incumbent peers have deployed partial fiber technology, which lags the speeds offered by cable, but has enabled telecoms to compete more aggressively on entry-level product prices. As a result, it has become increasingly difficult for cable providers to raise prices with churn rates becoming more of a headwind for the classic "annual price increase."

As a result, the emphasis has shifted to the upselling of bundled products. In less developed markets, cable continues to focus on the bundling of triple-play products to drive average revenue per user (ARPU) growth. In more developed markets, this has moved to quad play (fixed and mobile bundles), which helps lower customer churn and increase total lifetime value.

The move towards quad-play bundling of mobile and fixed products has driven M&A in the sector, e.g. Telenet's acquisition of Base mobile and Liberty Global's sales of its German, Austrian, Swiss, and Central and Eastern European assets to mobile telecom operators.

In terms of fundamentals, leverage across the industry has increased over the past two years with off-balance sheet vendor financing being used by most scale operators. This has resulted in EBITDA leverage of about 5x on a total net basis vs. 4x earlier in the decade. While the increasing pressure from telecoms has seen public cable companies trade at around 7.5x EBITDA, recent transaction multiples have been in the range of 11-12x EBITDA due to the strategic value and synergy potential of combining cable and mobile assets.

In the shorter term, the sector remains well supported after refinancing of large capital structures at increasingly lower yields and with significant free cash flow generation. Longer term, increasing expansion of true fiber technology by telecom operators will remain a concern for the European cable sector. Regulatory risk also looms in the background, particularly in Benelux countries where both Telenet and Ziggo have faced regulatory pressure to offer wholesale access to their networks.

North American and European High Yield Autos

Fundamentals across U.S. high yield auto issuers continue to deteriorate on weakening global growth, declining production forecasts, additional program launches by suppliers, more debt funded acquisitions, and increasing political/regulatory uncertainty.

Among suppliers, credit metrics have weakened due to declining sales volumes, launch/operational issues, and regulatory headwinds. Although credits exposed to the commercial truck/SUV markets have remained resilient, weak orders for class 8 vehicles (i.e., large commercial trucks, such as tractor trailers or dump trucks) represent a potential risk heading into 2020. Initially, suppliers were not asked to reduce production due to the United Auto Workers' GM strike. American Axle, Tenneco, Goodyear, and Delphi are suppliers that were most susceptible to the strike.

With cyclical tailwinds stagnating, suppliers are increasingly focused on acquisitions to augment growth and to navigate emerging and potentially disruptive secular trends (e.g., electrification, semi-autonomous & autonomous driving, and shared mobility). Lower production schedules, trade tensions, weak auto demand from China, freight cycle maturity, elevated input prices, increased new program launches will likely remain headwinds for the next six months. We are also seeing additional corporate actions and share repurchases to bolster equity returns.

In Europe, weak sentiment surrounding the global automotive market, particularly the European and Chinese markets, remains a primary concern. European regulatory headwinds in 2019 and 2020—further exacerbated by political uncertainty surrounding Brexit and the threat of U.S. tariffs on European vehicles and parts—further dampens the sector's outlook. Additionally, European suppliers are facing mounting uncertainty surrounding production schedules and potential supply chain disruptions as original equipment manufacturers (OEMs) attempt to comply with new regulations and potential localization of production to avoid tariffs. This uncertainty has the potential to compound the existing margin pressure on suppliers from commodity costs, FX volatility, unanticipated launch costs, and stagnant growth in sales volumes.

North American High Yield Electric Utilities

Our trend outlook for the sector has weakened on expectations for decreased capacity pricing from the second half of 2019 through the coming twelve months and for relatively flat forward pricing in the PJM, New York, and New England regions.

New England's recent capacity auction was weaker than expected and was primarily driven by a new plant that most view as uneconomic. Other generators in the region are taking legal action as the plant was given an exception to the minimum offer price rules (MOPR), which allowed the plant to bid below the mandatory offer price and, therefore, to depress capacity pricing.

In general, 2019 guidance levels are showing slight improvements to 2018. Vistra is still guiding 2020 to be relatively flat to 2019, which is an improvement on prior expectations given the acknowledged dip in capacity pricing.

Despite the weaker trend outlook, credit fundamentals for the sector remain stable. EBITDA improvements are expected in 2019 vs. 2018 and, when coupled with active debt paydown, will likely lead to balance sheet improvements over next couple of years.

Gross leverage metrics are in the 5x range for most of the names in the high yield utility space, which are operating with solid cash balances and strong free cash flow generation. Leverage in the 2.5x to 3x range is the goal for several independent power producers (IPPs) and should be achieved through free cash flow generation, EBITDA improvement, asset sales, and debt paydown. Despite high free cash flow, management teams understand that they need to reduce leverage to improve valuations and help them ride through the business cycle. Another consistent message among IPPs is that they plan to quickly shutter plants with negative free cash flow, which supports a thesis of tightening supply over the longer term.

In general, the sector does not require access the capital markets in the near term as most maturities have been pushed out to 2023 and beyond.

We continue to focus on asset quality in the sector and are avoiding names that have subpar asset quality, weak cash flow, and irresponsible sponsors. We're also avoiding many single asset loan deals. Conversely, we are positioned in names with large diverse fleets both by fuel source and by geography.

North American Investment Grade and High Yield Paper

We see a deteriorating outlook trend for the North American paper sector as its faces lower packaging demand growth and pricing pressure on pulp grades. While margin pressure is likely to intensify through the end of 2019, recycled fiber costs remain contained and should partially mitigate the pressure on margins.

In addition, the near- to medium-term risk within containerboard remains conversions of former paper mills to containerboard facilities. As of August 2019, there were 12 new projects in the pipeline, two-thirds of which were from paper machine conversions, that could add 3.4 million tons of annual capacity, equating to ~3% annual capacity growth over 2019-2021. These capacity additions would outpace recent demand, potentially weakening the market going forward.

The trend in North American containerboard box shipments has remained in the low-single digits for the last five years, due in part to online retailing trends. However, the YTD data through August have been disappointing (+0.50%). Containerboard inventory levels have held near the 10-year average (4.0 weeks of production) as key players have taken production downtime to manage inventories and to help prices from slipping further. Key players have taken facility downtime to maintain reasonable inventory levels and to help pricing from slipping further. Linerboard prices were stable at a decent level for all of 2018 and, after slipping over the past few months, seemed to stabilize through August 2019.

Recycled fiber costs fell for six consecutive months, and in June 2019, they hit the lowest level in 25 years where they have remained. This relative stabilization should help provide an offset to margin pressures, but likely suggests more price declines over the near term.

North American Investment Grade Aerospace & Defense

The fundamental trend for the sector has shifted from positive to stable amid slowing growth in the U.S. defense budget in the coming years. The defense budget in fiscal year 2019 grew 12% from fiscal year 2018, which grew at a 10% rate. Early budget proposals for fiscal year 2020 indicate positive, albeit slowing, defense spending growth.

Still, commercial aircraft backlogs remain solid (Boeing's comprises about seven years of production), and air travel represents a secular growth market. The recent crashes of the 737 MAX prompted certification reviews, but there's been relatively few order cancellations from air carriers or aircraft lessors. For reference, 737 MAX comprises 80% of the total aircraft in backlog.

Potential headwinds for the sector also include a slowdown in the Chinese economy, which could reduce demand for new aircraft, and the reemergence of event risk in the defense space. Issuers involved in recent M&A transactions include: Raytheon, United Technologies, Northrop Grumman, General Dynamics, and Boeing.

Pension obligations in the sector remain substantial, but several companies (i.e., Lockheed Martin, Boeing, Raytheon, Huntington Ingalls) have recently made sizeable contributions to their plans

North American Investment Grade and High Yield Chemicals

The fundamental trend for the sector appears weaker as the U.S./China trade war has reduced global chemical trade, thereby

increasing growth headwinds or prompting contraction in some areas (especially in high yield names exposed to electronics and automotive production). The tariffs have caused general demand uncertainty (which has muted capital spending plans), altered supply chains, and, in many cases, impacted the normal geographical flow of goods.

Additional China-related stresses to the sector include reduced demand (China still accounts for over 30% of global chemicals demand, and sharp swings in supply/demand impact global chemical prices), yuan devaluation (a weaker currency could increase prices and weaken demand), and U.S. dollar strength (a strong dollar makes U.S. produced chemicals more expensive relative to other producers, all else being equal). In general, the high yield M&A pipeline remains quiet, apart from some small portfolio deals.

In the U.S. investment grade chemicals sector, the U.S. ethylene cycle is expected to trough between late 2019 and early 2020 as the remainder of new ethylene and polyethylene capacity starts up and begins production. With U.S. producers benefitting from a large cost advantage on liquid natural gas, which has continued to attract chemical production investment, ethane feedstock costs have been favorable and have provided a margin offset as prices have been pressured by new U.S. capacity.

Consensus expectations still call for a shorter, shallower trough than expected a couple years ago amid support by stronger than expected polyethylene demand and lower oil prices. However, there are several large-scale projects announced in China that could add to global industry supply over the next five years.

North American Investment Grade and High Yield Oil Field Services

We see a deteriorating trend in the fundamentals for the investment grade and high yield oil field services sector. While crude oil prices have recovered from their lows in February 2016 and issuers have continued to reduce costs, the oil field services industry only experienced a minor rebound as revenues have yet to recover and gross profit margins have remained at a fraction of their prior levels.

The recent drilling rig count of 855—a fresh two-year low—demonstrates capital discipline on behalf of the upstream producers, but it's not a constructive backdrop for the oil field services industry.

Our general expectations for a 5-10% reduction in 2019 capital expenditures among the North American upstream industry is largely coming to fruition. However, the fundamentals for specific sub-services are diverging. Demand remains strong for high-specification drilling rigs, which maintain high utilization rates, and rig operators have some margin/pricing power (even though their top lines are relatively weak). In the event of an upswing in services demand, their operating leverage will likely give way to incremental margin and profitability growth.

By contrast, the hydraulic fracturing industry is over supplied and is largely comprised of commoditized product offerings, and we expect most of the 2019 pricing pressure to show up in well completions. Hydraulic fracturing firms lack pricing power, and their equity prices continue to suffer.

The third and fourth quarters of 2019 could be the low points for the North American services industry, and the international picture is brighter with the recent rig count of 1,131, up 15% year-over-year and up slightly sequentially. We expect international services to outperform the U.S. Aside from the negative cyclical forces, advancements in drilling and completion techniques continue to present a persistent headwind in the oilfield services industry.

North American Investment Grade Diversified Manufacturing

The ongoing weakness in global manufacturing data and the slew of companies that have reduced growth expectations this year underscore the global concerns about another "industrial recession" and our weaker outlook for the sector.

Organic sales growth continues to slow, although margins generally seem to be holding up with slight expansions. Companies continue stating that they are mitigating tariffs and other rising costs via pricing and supply actions.

Event risk in the space bears watching, particularly in the HVAC industry where there has been a lot of speculation around consolidation. We'd note that most of the HVAC names we track have announced/completed transitions into more pure-play climate companies over the last year, which could be in preparation for some type of merger. Issuers engaging in recent transactions include Ingersoll Rand, Johnson Controls, and United Technologies.

Outside of HVAC, many other names remain active in business development as well, including Fortive, 3M, and Parker Hannifin. We're also awaiting the pending completion of Danaher Corp.'s $21B acquisition of GE Biopharma, which is expected to close later this year.

North American Investment Grade Tobacco

The outlook trend in investment grade tobacco appears to be weakening as declining cigarette sales volume has accelerated since 2016 amid rising e-cigarette usage and slightly reduced price inelasticity amongst smokers. In 2019, YTD volumes declined between 5-6% relative to a 4.1% decline in 2017 and a 5.0% decline in 2018. A return to the long-term historic "normal" reduction of around 3.5% seems unlikely, thereby challenging the traditional

model of implementing “just enough” price increases to ensure modest profit growth.

In addition, regulatory oversight has become tougher (i.e., the U.S. FDA is proposing to ban all flavored (including menthol) e-cigarettes and cigars). FDA approval of reduced risk products remains slow with only Philip Morris’ IQOS product approved so far. Yet, we think IQOS usage will be slower to develop than some investors anticipate given its slow growth in Canada.

M&A risk has also returned, but with the failure of Philip Morris/Altria merger, we remain optimistic that M&A will not be credit negative (i.e., likely all stock given already high debt levels).

Unchanged Fundamentals or Trend

North American Investment Grade Autos

Although unchanged from last quarter, we’re maintaining a negative outlook on the sector given the expectation for steadily declining auto sales in the U.S. (despite generally stable fundamentals), the continuation of weak sales in China, and execution risk around restructuring activities.

The rapid shift in industry technology adds longer-term risk to the sector as companies invest in multiple areas in an attempt to find the right combination of features. Non-traditional competitors, such as Tesla, Google, and Apple, may pressure traditional OEMs and could necessitate the partial IPO of autonomous driving operations to compete for talent. Spending requirements are rising with increasing investment in new products to incorporate additional technology, as well as investments to address the future of mobility. Margins could also face pressure if producers are unable to recoup the cost of increasing content and regulatory requirements.

North American Investment Grade Banks

U.S. money center banks have been operating at peak conditions in recent quarters. Asset quality metrics are generally near historic lows, capital levels are declining (but remain in excess positions), and profitability continues to meaningfully improve. Still, a more dovish Federal Reserve and flat yield curve could put pressure on net interest margins going forward. However, banks should start to get relief on funding costs given that, when interest rates change, bank assets tend to reprice more quickly than deposits.

Despite the more challenging rate environment, we remain confident that banks could grow profits through improved efficiency. Management teams across the industry remain focused on generating positive operating leverage, and we should see efficiency improvements through branch consolidation, technology improvement, and streamlining back office processes.

While the overall outlook remains favorable, significant balance sheet improvements are less likely. The M&A pipeline remains strong, and the health of the underlying economy will drive investment banking and capital markets revenue over the longer term.

Asset quality remains stable as credit provisions should roughly match net charge-offs (apart from credit card portfolios). While asset quality metrics should generally remain stable, there will likely be an upward bias as we expect normalization from historic lows.

The current regulatory environment supports our thesis that U.S. money center banks should get regulatory relief around the edges, but massive reform at the global systemically important bank level remains unlikely. Indeed, regulatory reform has thus far been tailored towards smaller banks as those with <$250B in assets were exempt from comprehensive capital analysis and review this year.

Notice: Important Information

Source(s) of data (unless otherwise noted): PGIM Fixed Income as of October 2019.

PGIM Fixed Income operates primarily through PGIM, Inc., a registered investment adviser under the U.S. Investment Advisers Act of 1940, as amended, and a Prudential Financial, Inc. ("PFI") company. PGIM Fixed Income is headquartered in Newark, New Jersey and also includes the following businesses globally: (i) the public fixed income unit within PGIM Limited, located in London; (ii) PGIM Japan Co., Ltd. ("PGIM Japan"), located in Tokyo; and (iii) the public fixed income unit within PGIM (Singapore) Pte. Ltd., located in Singapore. Prudential Financial, Inc. of the United States is not affiliated with Prudential plc, which is headquartered in the United Kingdom. Prudential, PGIM, their respective logos, and the Rock symbol are service marks of PFI and its related entities, registered in many jurisdictions worldwide.

These materials are for informational or educational purposes only. The information is not intended as investment advice and is not a recommendation about managing or investing assets. In providing these materials, PGIM is not acting as your fiduciary. These materials represent the views, opinions and recommendations of the author(s) regarding the economic conditions, asset classes, securities, issuers or financial instruments referenced herein. Distribution of this information to any person other than the person to whom it was originally delivered and to such person's advisers is unauthorized, and any reproduction of these materials, in whole or in part, or the divulgence of any of the contents hereof, without prior consent of PGIM Fixed Income is prohibited. Certain information contained herein has been obtained from sources that PGIM Fixed Income believes to be reliable as of the date presented; however, PGIM Fixed Income cannot guarantee the accuracy of such information, assure its completeness, or warrant such information will not be changed. The information contained herein is current as of the date of issuance (or such earlier date as referenced herein) and is subject to change without notice. PGIM Fixed Income has no obligation to update any or all of such information; nor do we make any express or implied warranties or representations as to the completeness or accuracy or accept responsibility for errors. **All investments involve risk, including the possible loss of capital. These materials are not intended as an offer or solicitation with respect to the purchase or sale of any security or other financial instrument or any investment management services and should not be used as the basis for any investment decision. No risk management technique can guarantee the mitigation or elimination of risk in any market environment. Past performance is not a guarantee or a reliable indicator of future results and an investment could lose value. No liability whatsoever is accepted for any loss (whether direct, indirect, or consequential) that may arise from any use of the information contained in or derived from this report. PGIM Fixed Income and its affiliates may make investment decisions that are inconsistent with the recommendations or views expressed herein, including for proprietary accounts of PGIM Fixed Income or its affiliates.**

The opinions and recommendations herein do not take into account individual client circumstances, objectives, or needs and are not intended as recommendations of particular securities, financial instruments or strategies to particular clients or prospects. No determination has been made regarding the suitability of any securities, financial instruments or strategies for particular clients or prospects. For any securities or financial instruments mentioned herein, the recipient(s) of this report must make its own independent decisions.

Conflicts of Interest: PGIM Fixed Income and its affiliates may have investment advisory or other business relationships with the issuers of securities referenced herein. PGIM Fixed Income and its affiliates, officers, directors and employees may from time to time have long or short positions in and buy or sell securities or financial instruments referenced herein. PGIM Fixed Income and its affiliates may develop and publish research that is independent of, and different than, the recommendations contained herein. PGIM Fixed Income's personnel other than the author(s), such as sales, marketing and trading personnel, may provide oral or written market commentary or ideas to PGIM Fixed Income's clients or prospects or proprietary investment ideas that differ from the views expressed herein. Additional information regarding actual and potential conflicts of interest is available in Part 2A of PGIM Fixed Income's Form ADV.

In the United Kingdom and various European Economic Area ("EEA") jurisdictions, information is issued by PGIM Limited with registered office: Grand Buildings, 1-3 Strand, Trafalgar Square, London, WC2N 5HR. PGIM Limited is authorised and regulated by the Financial Conduct Authority of the United Kingdom (Firm Reference Number 193418) and duly passported in various jurisdictions in the EEA. These materials are issued by PGIM Limited to persons who are professional clients as defined in Directive 2014/65/EU (MiFID II). In certain countries in Asia, information is presented by PGIM (Singapore) Pte. Ltd., a Singapore investment manager registered with and licensed by the Monetary Authority of Singapore. In Japan, information is presented by PGIM Japan Co., Ltd., registered investment adviser with the Japanese Financial Services Agency. In South Korea, information is presented by PGIM, Inc., which is licensed to provide discretionary investment management services directly to South Korean investors. In Hong Kong, information is presented by representatives of PGIM (Hong Kong) Limited, a regulated entity with the Securities and Futures Commission in Hong Kong to professional investors as defined in Part 1 of Schedule 1 of the Securities and Futures Ordinance. In Australia, this information is presented by PGIM (Australia) Pty Ltd ("PGIM Australia") for the general information of its "wholesale" customers (as defined in the Corporations Act 2001). PGIM Australia is a representative of PGIM Limited, which is exempt from the requirement to hold an Australian Financial Services License under the Australian Corporations Act 2001 in respect of financial services. PGIM Limited is exempt by virtue of its regulation by the Financial Conduct Authority (Reg: 193418) under the laws of the United Kingdom and the application of ASIC Class Order 03/1099. The laws of the United Kingdom differ from Australian laws. In South Africa, PGIM, Inc. is an authorised financial services provider – FSP number 49012.

2019-5217