

An Update on the U.S. Consumer and Opportunities In the Asset-Backed Securities Market

Andrew Hsu, CFA, Michael Fine & Phil Gioia, CFA | July 2023



Key Takeaways

- The consumer plays a vital role in the U.S. economy, and the growing level of household debt provides abundant collateral for securitization via the Asset-Backed Securities (ABS) market.
- ABS investors can find reassurance in existing and evolving risk-mitigation measures that provide strong protections in the face of economic weakness.
- DoubleLine's investment approach encompasses all consumer subsectors and covers the entire capital stack, which helps us to identify the most-opportune investment at any given time, potentially maximizing returns while minimizing risk for our investors.

Introduction

Consumer ABS currently offer attractive opportunities in fixed income. The asset's appeal can be attributed to favorable factors such as its advantageous positioning relative to the U.S. Treasury yield curve; high cash-on-cash returns; and, despite challenges posed by weakening consumer fundamentals, robust structural protections that protect investors in the event of deteriorating loan performance. It is important to recognize the significant role played by the U.S. consumer in driving the overall domestic economy, with personal consumption accounting for approximately 70% of gross domestic product.¹ This consumption is sustained by debt, and as of first quarter 2023, household debt had exceeded \$17 trillion, an unprecedented milestone. A significant portion of this total, around \$5 trillion, falls under the category of non-mortgage-related debt. This includes auto loans, credit cards, personal loans and student loans, which all can serve as collateral for the consumer ABS market. Roughly a trillion dollars of this debt is securitized by the ABS market, providing ample investment opportunities via a market characterized by its depth, predictability, and liquidity.

¹ Federal Reserve Bank of St. Louis



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State of the U.S. Consumer

The labor market plays a crucial role in consumer health and has remained supportive with historically low levels of unemployment as the economy has rebounded from the depths of the pandemic-driven recession. Various metrics, including nonfarm payroll reports, Job Openings and Labor Turnover Survey data and average hourly earnings, signal a tight labor market. While there are anecdotal examples of softening, namely layoffs in the technology sector, material weakness has not yet shown up in the aggregate data. However, what is particularly concerning for consumers is the simultaneous occurrence of historically high inflation levels and the conclusion of the most recent period of quantitative easing. The timing of these two events aligns with some noticeable deterioration in borrower performance data.

First, consumer delinquencies and defaults are on the rise, suggesting that borrowers are facing increasing difficulties in meeting monthly obligations. The level of deterioration, however, has varied by loan type and borrower cohort.

Across loan types, marketplace lending (MPL) loans, which are loans granted through online platforms without a traditional bank intermediary, have experienced a significant surge in delinquencies and defaults, surpassing levels observed prior to the COVID-19 pandemic. To a lesser extent, delinquencies, and defaults among subprime auto loans have also been on the rise and are now in line with pre-pandemic levels. (Figure 1)

Defaults Across Consumer Sectors | As of June 30, 2023

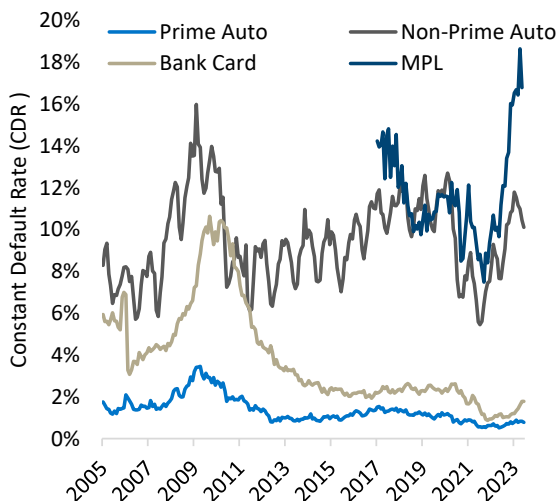


Figure 1
Source: DoubleLine, J.P. Morgan

Conversely, loans extended to borrowers with higher credit quality, such as prime auto loans and bank credit cards, have experienced minimal increases in delinquency and defaults, remaining close to levels observed during the pandemic and significantly below their historical average. In general, borrowers with lower credit scores, have experienced the largest increase in delinquencies and defaults. (Figure 2)

The mild deterioration in consumer credit observed to date will likely be exacerbated if forecasts for a softening labor market and rising unemployment become reality.

MPL 60-Day+ Delinquencies by Credit Band | As of June 30, 2023

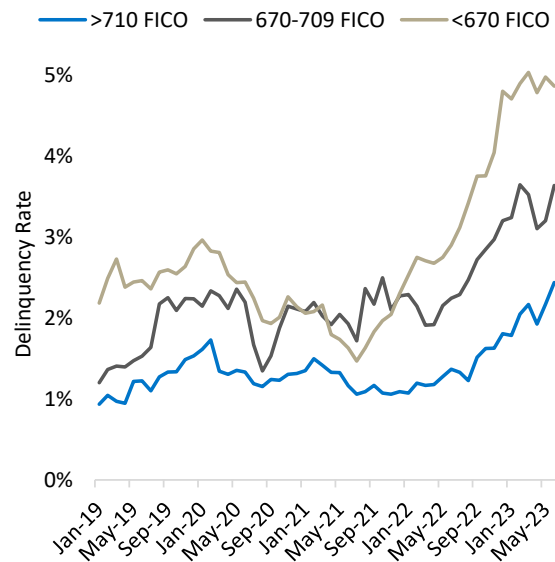


Figure 2
Source: DoubleLine

Investor Protection Via ABS Securitization

Despite some declining credit performance trends, ABS investors can find reassurance in existing and evolving risk-mitigation measures that provide strong protections in the face of a recession.

After the 2008 Global Financial Crisis (GFC), ABS deals have been structured to withstand loss multiples much worse than those observed during one of the worst recessions in U.S. history. (Figure 3) These ratings agency loss multiples indicate the extent to which tranches can withstand losses compared to their historical averages.

ABS Consumer Loan Stress CNL Multiples | As of June 30, 2023

KBRA Rating	Subprime	Prime
AAA	2.50 - 6.00x	4.00 - 6.00x
AA	2.25 - 4.00x	3.25 - 5.00x
A	2.00 - 3.50x	2.75 - 3.75x
BBB	1.75 - 3.00x	2.00 - 3.00x
BB	1.25 - 2.00x	1.25 - 2.25x
<i>GFC loss multiple observed by the Federal Reserve</i>	1.40x	2.60x

Figure 3
Source: DoubleLine, KBRA, Federal Reserve
Cumulative Net Loss (CNL)

For example, subprime and prime consumer loan ABS rated A could withstand cumulative net losses (CNLs) of approximately 2.75 times and 3.25 times above their historical average, respectively. When compared to the loss multiples for subprime and prime consumer loans observed during the GFC (1.4 times and 2.6 times, respectively) it is reasonable to conclude that tranches rated A and above would have sufficient protection even in the event of an immediate recession that is worse than the GFC.²

This robust protection against higher losses is a byproduct of structural features present in ABS deals, including:

Overcollateralization: The market value of the underlying collateral pool generally exceeds the market value of the issued ABS debt.

Subordination: Use of hierarchical tranches that rank below more-senior tranches in a sequential manner. (Figure 4)

Loss/Delinquency Triggers: If certain levels are breached, all cash flows to the equity tranche are redirected and used to accelerate the repayment of the most-senior tranche. (Figure 5)

² Federal Reserve

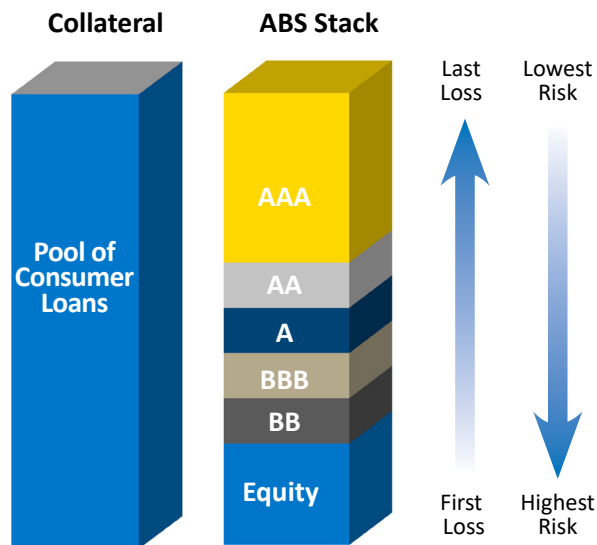


Figure 4
Source: DoubleLine

Cumulative Net Loss Example | As of June 30, 2023

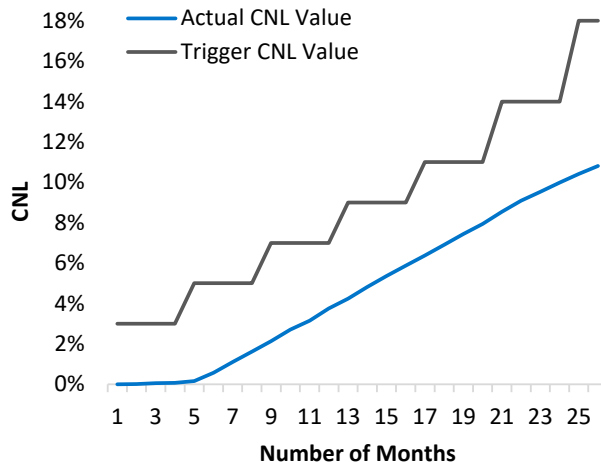


Figure 5
Source: DoubleLine

Excess Spread: The interest rate on the underlying collateral pool generally exceeds the average coupon of the issued ABS debt, e.g.

- A loan pool average interest rate of 20% less a 1% servicing fee and less a 9% average ABS coupon equals a 10% excess spread.

Amortization: Consumer debt benefits from required monthly principal and interest payments.

Focusing on Amortization Profiles

Regarding amortization, it is worth noting that consumer ABS typically experience front-weighted cash flows due to mandatory amortization. This generates a higher cash-on-cash return in early years, mitigates refinancing risk and reduces the investment's risk profile over time. With each monthly paydown, consumer ABS naturally deleverages, which can help minimize risks should underlying fundamentals continue to deteriorate. This contrasts with most corporate bonds, which have bullet maturities on a lump sum payment. (Figures 6 & 7)

Consumer ABS Cash Flows

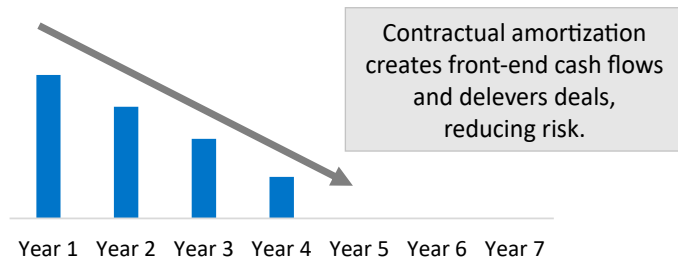


Figure 6
Source: DoubleLine

Corporate Bond Cash Flow

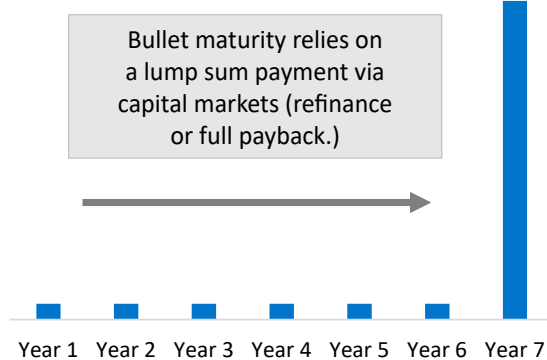


Figure 7
Source: DoubleLine

New-Issue ABS

Consumer debt being securitized in the current market has additional risk-mitigation measures. Loan originators have begun implementing stricter credit requirements, resulting in ABS collateral pools with enhanced credit quality, as evidenced by higher weighted average FICO scores. (Figure 8)

New-Issue ABS Weighted Average FICO Scores by Vintage

	2018	2019	2020	2021	2022	2023
MPL	704	705	689	664	670	713
Prime Auto	755	755	757	754	754	755
Non-Prime Auto	587	585	583	586	593	608

Figure 8
Source: DoubleLine, J.P. Morgan

Additionally, MPL deals are now exhibiting higher weighted average coupons (WAC) and greater credit enhancement (CE), both of which can help mitigate potential principal losses for ABS investors. (Figure 9)

MPL Senior Tranche WAC and CE | As of June 30, 2023

■ Average Original WAC ■ Average Original Senior C/E

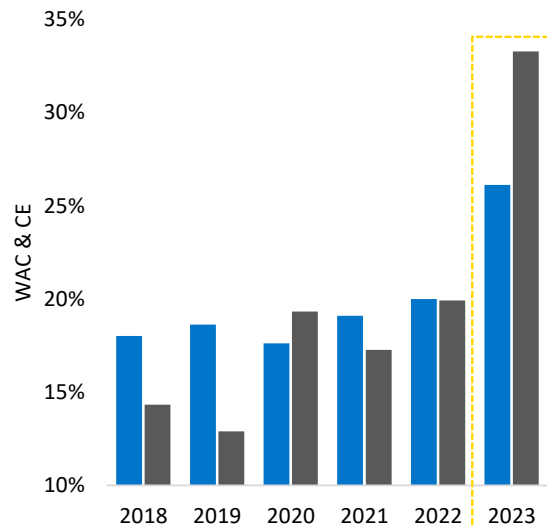


Figure 9
Source: DoubleLine

Relative Value

Given the amortization profile, consumer ABS is priced off the front end of the U.S. Treasury yield curve, which currently offers materially higher yields compared to other Treasury tenors. This is attributed to a historic level of inversion, as the yield difference between the two-year Treasury and 10-year Treasury (2s10s) is at its most inverted state since the 1980s. (Figure 10)

10-Year Yield Minus 2-Year Yield | As of July 6, 2023

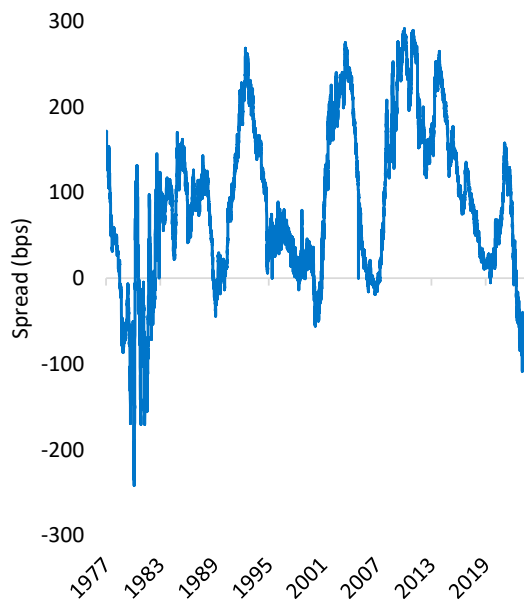


Figure 10
Source: DoubleLine, Bloomberg

Higher front-end Treasury rates are reflected in ABS yields. The Bloomberg US Agg ABS Index is a AAA-rated index that currently yields 5.6%, near the highest all-in yields available in the post-GFC era, and well above its average of 1.9% going back to 2009. (Figure 11)

Bloomberg US Agg ABS Index Yield | As of July 6, 2023

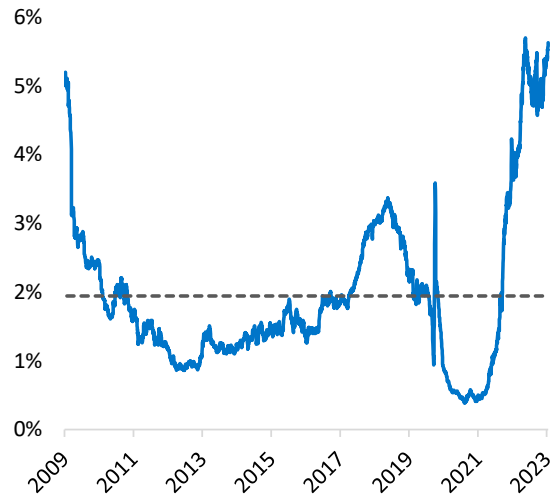


Figure 11
Source: DoubleLine, Bloomberg.
Dashed line represents the average yield-to-worst from June 30, 2009.

Moreover, consumer ABS provide attractive yield-to-duration ratios in today's fixed income market. For example, MPL senior tranches rated A offer a 7% yield with a duration of one year, in comparison to the profile of a U.S. corporate bond rated A, which yields 5.3% with a duration of nearly seven years. (Figure 12)

Yield Per Unit of Duration | As of June 30, 2023

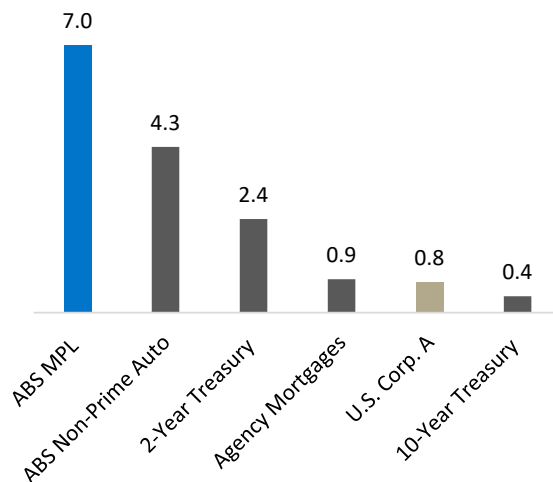
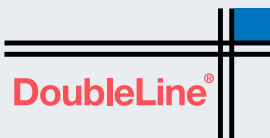


Figure 12
Source: DoubleLine, Bloomberg.
U.S. Corp. A represented by the ICE BofA Single-A U.S. Corporate Index



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Conclusion

The consumer plays a vital role in the U.S. economy, and the growing level of household debt provides abundant collateral for securitization via the ABS market. Despite the potential deterioration of consumer fundamentals, we anticipate strong performance of ABS across various scenarios. The yields available are at decade highs, and ABS deals are designed to withstand losses well exceeding those experienced during the GFC. For investors who can actively manage exposure to collateral with more-favorable fundamental outlooks and avoid idiosyncratic risks, we believe consumer ABS exposure can provide attractive risk-adjusted return opportunities.

In the event of a pause in the Federal Reserve's monetary policy, ABS investors can potentially still benefit from the current environment in which a historically inverted yield curve results in consumer ABS offering among the highest yield per unit of duration relative to other fixed income sectors. If the Fed continues raising rates, the short-term, monthly amortizing nature of ABS investments enables investors to reinvest cash flows into a higher-rate environment. Lastly, in the event of a Fed rate cut, history would suggest a significant move lower on the front end of the Treasury curve, leading to increased prices for high-coupon, high-grade ABS securities. ■

Why DoubleLine for Consumer ABS?

With assets under management of nearly \$100 billion and a broad spectrum of investment strategies that range across risk profiles, DoubleLine is well positioned to invest in consumer ABS. In contrast to many ABS investors that might specialize in one subsector or one tranche, DoubleLine's investment approach encompasses all consumer subsectors and invests up and down the entire capital structure. This holistic approach helps our team identify the most-opportune investment at any given time, thereby potentially maximizing returns while minimizing risk for our investors.

Our proficiency in sourcing, structuring and obtaining attractive relative value within the ABS market is made possible by the depth and breadth of our investment team. DoubleLine's Structured Products team consists of 32 investment professionals who are experts in ABS, mortgage-backed securities and collateralized loan obligations. Our dedicated ABS team comprises seven individuals who over the years have combined a vast network of market participants with a robust analytical framework to deliver attractive returns to investors. The ABS team participates in public and private markets and has experience structuring bespoke transactions tailored to clients' specific risk and return appetites.

About the Authors



Andrew Hsu, CFA®
Portfolio Manager, Structured Products

Mr. Hsu joined DoubleLine at its inception in 2009. He is a Portfolio Manager for the DoubleLine Total Return and ABS/Infrastructure Income strategies. Mr. Hsu is a permanent member of the Fixed Income Asset Allocation and Structured Products committees. Prior to that, he was responsible for analysis and trading of structured products, where his focus included residential MBS and ABS transactions. Mr. Hsu's responsibilities have also included structuring and negotiating terms on new-issue transactions and forming strategic partnerships with issuing entities in order to participate in key transactions. Prior to DoubleLine, he worked at TCW from 2002, where he focused on credit analysis for structured product securities and co-managed two structured product funds centered on debt and equity investments. During that time, Mr. Hsu was actively involved with portfolio management decisions and investment analysis, including reverse engineering complex CDO/CLO structures. He holds a B.S. in Finance from the University of Southern California and is a CFA® charterholder.



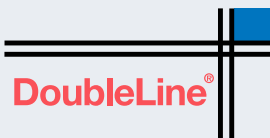
Michael Fine
Trader, Asset-Backed Securities

Mr. Fine joined DoubleLine in 2015 and is currently a Trader on the Asset-Backed Securities team. Previously, he was an Analyst on the Risk Management team focusing on credit research and trading. Prior to DoubleLine, Mr. Fine was with Western Asset Management as an Analyst performing structured credit research and providing portfolio analysis on multi-sector fixed income portfolios. Previous to that, he was member of the Analytics team. Mr. Fine holds a B.A. in Political Science from the University of California, Los Angeles.



Phil Gioia, CFA®
Product Specialist

Mr. Gioia joined DoubleLine in 2018. He is a member of the Product Specialist Team. In this capacity, he is responsible for various aspects of DoubleLine product marketing, investment strategy updates, portfolio communications and competitive analysis, with a focus on DoubleLine's Structured Product strategies. Mr. Gioia is also responsible for producing market commentary and dedicated strategy content. As part of the Product Specialist Team, he attends the Fixed Income Asset Allocation, Macro Asset Allocation, and Structured Product meetings. Prior to DoubleLine, Mr. Gioia was an Investment Product Manager for Fidelity Investments. He holds a B.S. in Financial Management and Business Administration with a minor in Accounting from Salve Regina University and earned a certification for the Applied Data Science Program from Massachusetts Institute of Technology. Mr. Gioia is a CFA® charterholder and holds the FINRA Series 7 and 63 Licenses.



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Definitions

Asset-Backed Securities (ABS) – Investment securities, such as bond or notes, that are collateralized by a pool of assets, such as loans, leases, credit card debt, royalties or receivables.

Bloomberg US Agg Asset-Backed Securities (ABS) Index – This index tracks the performance on investment grade asset-backed securities on an aggregate, unhedged and total return basis.

Cash-on-Cash Return – Rate of return often used in real estate transactions that calculates the cash income earned on the cash invested in a property. Put simply, cash-on-cash return measures the annual return the investor made on the property in relation to the amount of mortgage paid during the same year. It is considered relatively easy to understand and one of the most important real estate return on investment calculations.

Collateralized Loan Obligation (CLO) – Single security backed by a pool of debt.

Commercial Mortgage-Backed Securities (CMBS) – Securitized loans made on commercial rather than residential properties.

Duration – Measure of the sensitivity of the price of a bond or other debt instrument to a change in interest rates.

FICO Score – This credit score, created by the Fair Isaac Corp., is used by lenders along with other details on a borrower's credit report to assess credit risk and determine whether to extend credit.

ICE BofA Single-A U.S. Corporate Index – This index tracks the single-A tranche of the ICE BofA U.S. Corporate Index, which measure the performance of U.S. dollar-denominated, investment grade (IG) corporate debt publicly issued in the U.S. domestic market. Qualifying securities must have an IG rating (based on an average of Moody's, S&P and Fitch) and an IG-rated country of risk (based on an average of Moody's, S&P and Fitch foreign currency, long-term sovereign debt ratings). Securities must also have at least one year remaining to final maturity, a fixed coupon schedule and a minimum amount outstanding of \$250 million.

Job Openings and Labor Turnover Survey (JOLTS) – Conducted by the U.S. Bureau of Labor Statistics, JOLTS involves the monthly collection, processing and dissemination of job openings and labor turnover data. The data, collected from sampled establishments on a voluntary basis, includes employment, job openings, hires, quits, layoffs, discharges and other separations. The number of unfilled jobs – used to calculate the job openings rate – is an important measure of the unmet demand for labor, providing a more complete picture of the U.S. labor market than by looking solely at the unemployment rate.

Overcollateralization (OC) – Provision of collateral that is worth more than enough to cover potential losses in cases of default.

Prime – Classification of borrowers, rates or holdings in the lending market that are considered to be of high quality. This classification often refers to loans made to high-quality "prime" borrowers that are offered "prime" or relatively low interest rates.

Residential Mortgage-Backed Securities (RMBS) – Securitized loans made on residential rather than commercial properties.

Yield to Duration (YTD) – The yield of a bond if you were to buy and hold it until the time at which the price of the bond can be repaid by its internal cash flows.

Yield to Worst (YTW) – The lowest yield of a bond that can be received short of default.

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