The State of the U.S. Consumer
Through the Lens of Asset-Backed Securities

Andrew Hsu, CFA & Michael Fine | September 2024

Executive Summary

DoubleLine's analysis combining macroeconomic data with high-frequency consumer asset-backed securities (ABS) data indicates that the U.S. consumer remains resilient.

Consumer resilience is likely fueled by the strength of the residential mortgage market, a robust labor market and the excess savings accumulated during the pandemic.

Potential risks to the consumer persist, including the depletion of these savings, wage stagnation, a recent rise in unemployment and ongoing high consumer prices, notwithstanding cooling in the year-over-year rate of inflation.

ABS can offer investors a direct way to tap into the consumer market and potentially pursue attractive risk-adjusted returns.

The American consumer is the engine of the U.S. economy, accounting for approximately 70% of gross domestic product. Despite facing significant economic challenges and the threat of recession, the consumer has shown resilience, suggesting the possibility of an economic soft landing. At DoubleLine, we leverage asset-backed security (ABS) loan data in conjunction with macroeconomic data to form a comprehensive view of the U.S. consumer. ABS data provides a unique and valuable perspective on consumer health, especially given the limitations of traditional macroeconomic indicators. Macroeconomic data is often subject to seasonality, weather impacts and revisions, which can obscure the true state of the economy. In contrast, loan-level ABS data offers real-time, granular insights into consumer behavior, making it an essential tool for assessing the consumer sector's health. Monthly ABS remittance data is invaluable for identifying early signs of financial stress, such as rising delinquencies or slowing prepayments, before they manifest in broader economic indicators.

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Status of the Consumer

1. **Prepayment Speeds:** Rising interest rates have led to a slowdown in prepayment speeds, indicating a decrease in refinancing activity. Our proprietary database of $236 billion in auto loans shows that both prime and subprime borrowers are experiencing slower prepayment speeds, but these levels remain at or slightly below pre-COVID-19 averages. *(Figure 1)* The gradual nature of this slowdown suggests that consumers are still largely able to meet their obligations despite higher borrowing costs.

Average 1-Month Voluntary Prepayment Speed
January 1, 2017 through August 1, 2024

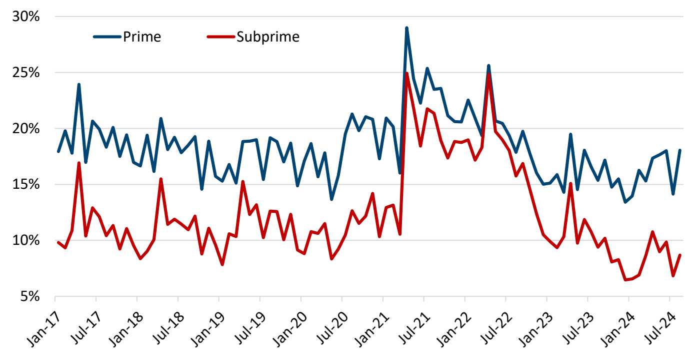

Figure 1
Source: DoubleLine

2. **Delinquencies (DQs) and Defaults:** Overall delinquency rates have remained low across most consumer credit products over the past two years, but signs of financial stress are beginning to appear in specific collateral types. *(Figure 2)* Mortgage DQs remain well below their long-term historical average, but credit card DQs have been climbing, reaching levels not seen in over a decade. Auto loan DQs, particularly among subprime borrowers, are also on the rise. The persistence of low mortgage delinquencies suggests that many homeowners are still in a relatively strong financial position. However, the increase in delinquencies in other areas points to growing financial stress among consumers, especially those with weaker credit profiles.

Balance 90+ Days Delinquent
March 2003 through June 2024

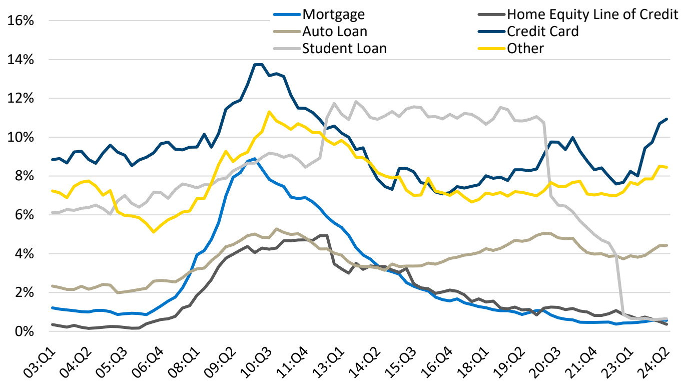

Figure 2
Source: Federal Reserve Bank of New York Consumer Credit Panel, Equifax

While defaults are currently contained, they could rise if economic conditions worsen. However, there are signs of improvement in newer loan vintages. For example, our proprietary data on personal loans shows that ABS collateral from the 2024 and 2023 vintages are displaying better loss performance compared to the 2022 and 2021 vintages, suggesting improved credit underwriting and tighter lending practices. *(Figure 3)*

Personal Loan - Cumulative Net Loss by Vintage Over Time
In Months

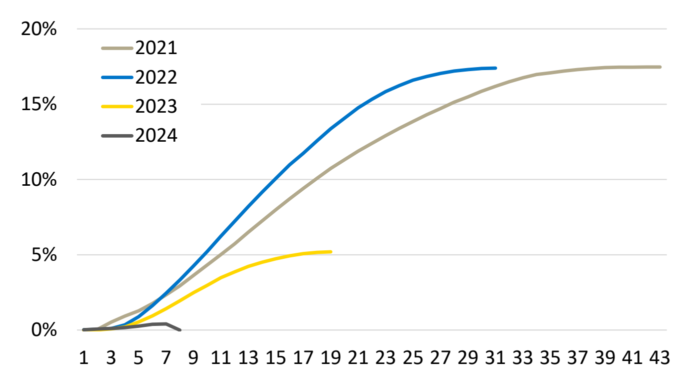

Figure 3
Source: DoubleLine

This improvement in underwriting and lending practices is also evident when looking at the average FICO scores across vintages. *(Figure 4)* For example, personal loan ABS deals issued in 2021 have an average FICO score of 680 versus 2024 deals, which have an average FICO score of 724. This FICO migration, from a near-prime consumer to a prime consumer, is helping lower default risk.

Average Personal Loan ABS FICO Score by Vintage
2021 through YTD 2024

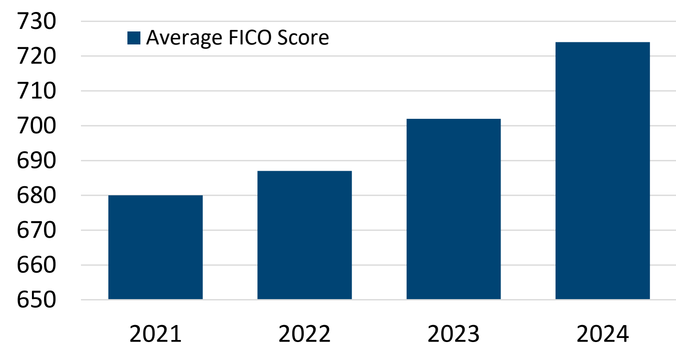

Figure 4
Source: J.P. Morgan, ABS Deal Documents, dv01

3. **Severity of Losses:** Loss severities have remained stable, largely due to strong collateral values, particularly in the auto and housing markets. *(Figure 5)* This stability has helped contain overall losses despite ongoing economic challenges. For instance, auto prices have decreased from their peak in 2022 but remain elevated from a historical perspective, which has helped keep severities near long-run averages. *(Figure 6)*

Home and Used Car Prices
January 2019 through June 2024

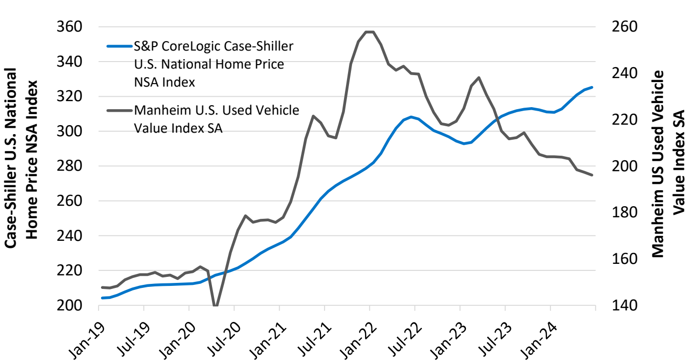

Figure 5
Source: Bloomberg

Average 1-Month Auto ABS Severities
January 2017 through August 2024

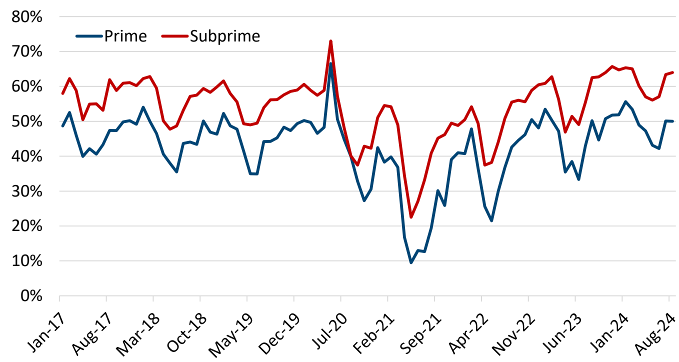

Figure 6
Source: DoubleLine

Why Are Consumers Holding Up?

1. **Residential Mortgage Strength:** The residential mortgage market remains robust, with low default rates and substantial home equity providing a strong buffer against financial stress. *(Figure 7)* Rising property values have further enhanced homeowners' financial resilience.

Households; Owners' Equity in Real Estate
January 1952 through January 2024

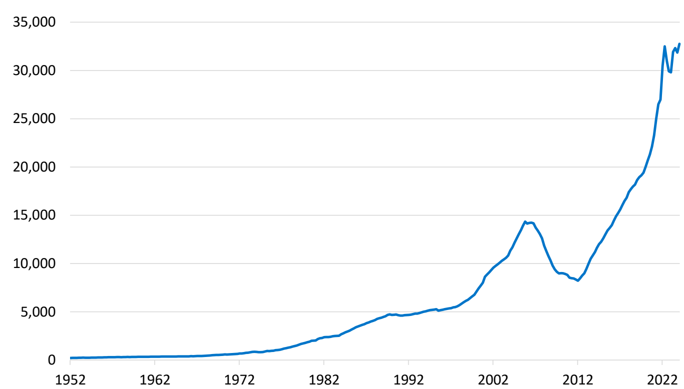

Figure 7
Source: Federal Reserve

Although a recent wave of refinancing has subsided due to higher interest rates, many homeowners secured historically low rates, reducing their monthly mortgage burdens and increasing their financial flexibility. Referencing Bankrate.com's 30-year fixed-rate mortgage data, mortgage rates fell to 2.85% in 2021 from 4.75% in 2018. *(Figure 8)* Refinance activity reached record levels during this period, and borrowers who refinanced saw their mortgage payments fall as much as 20% or more. Mortgage debt is typically the largest household liability and has a meaningful impact on the amount of household disposable income. With mortgage rates falling so dramatically, this has likely played a factor in consumer resiliency as the economy has slowed.

Refinance Index vs. 30-Year Mortgage Rates
January 2018 through December 2021

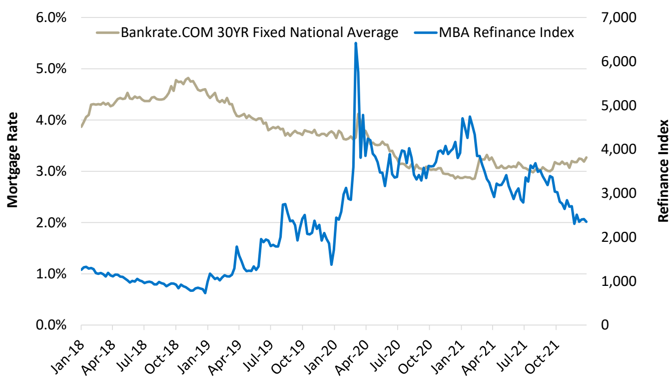

Figure 8
Source: Bankrate.com, Mortgage Bankers Association

2. **Labor Market Strength:** The labor market has remained a pillar of consumer strength, with positive real wage growth and a tight job market. Unemployment has been on the rise of late but remains at a historically low level. *(Figure 9)* Wage gains, particularly among lower-income workers, have partially offset inflationary pressures. Despite the strong labor market and rising asset prices, consumer sentiment remains weak, primarily due to the persistent pressure of higher interest rates and prices on household budgets. This paradox between strong economic fundamentals and weak sentiment underscores the complex dynamics at play in the current environment.

Unemployment Rate
January 1948 through July 2024

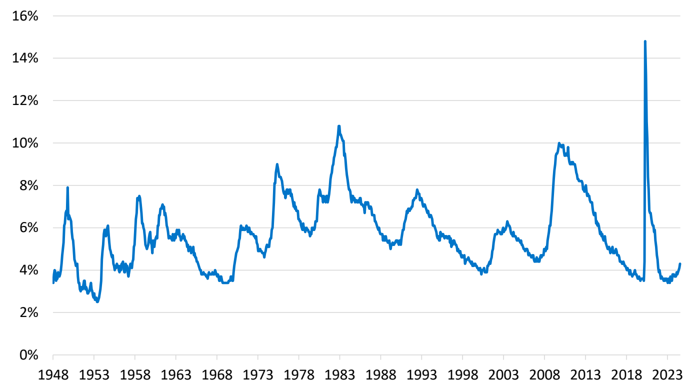

Figure 9
Source: U.S. Bureau of Labor Statistics

Risks to Consumer Resilience

1. **Wage and Employment Pressures:** Real wages have been on the rise over the past 12 months as inflation has ticked down, providing some relief to consumers. However, if wages fail to keep pace with rising costs, consumers might struggle to maintain their current spending levels, leading to increased financial strain. *(Figure 10)*

Year-Over-Year Changes in Nominal Wages, Inflation, and Real (Inflation-adjusted) Wages
2019 through YTD 2024

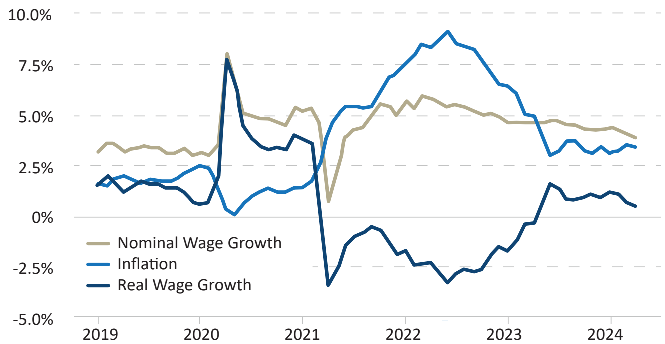

Figure 10
Source: EPI analysis of Bureau of Labor Statistics data

In terms of employment, July's labor market data showed signs of weakness. Based on July's data, the Sahm Rule was triggered when unemployment rose to 4.3%. *(Figure 11)* The Sahm Rule is a straightforward economic framework with a strong track record for detecting early signs of a recession. According to this rule, if the three-month average U.S. unemployment rate increases by 0.50% or more from its lowest point in the past 12 months, this signals the onset of a recession. A significant increase in unemployment could quickly undermine consumer confidence and spending.

Difference to 12-Month Low in Unemployment Rate
3-Month Moving Average; 1965 through July 31, 2024

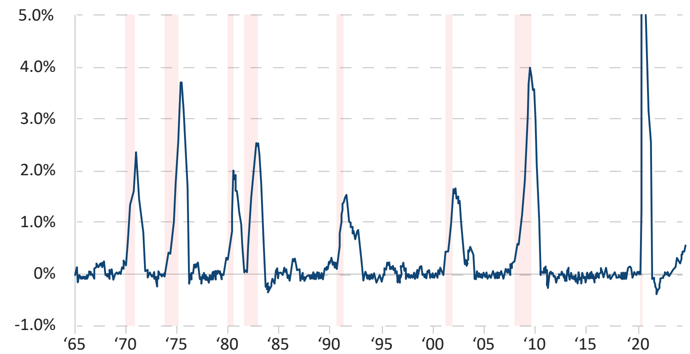

Figure 11
Source: Bureau of Lbor Statitics, Haver Analytics
Red shaded areas indicate recessionary periods.
You cannot invest directly in an index.

2. **Depletion of Excess Savings:** The financial cushion provided by the excess savings accumulated during the pandemic has largely been exhausted. These savings peaked at $2.1 trillion in August 2021 but have steadily diminished. *(Figure 12)* Despite this, consumer spending continued to drive U.S. economic growth over the past two years. However, to maintain current spending levels, consumers might increasingly have to rely on debt, such as credit cards, home equity lines of credit and personal loans.

Depletion of Excess Savings
2016 through July 2024

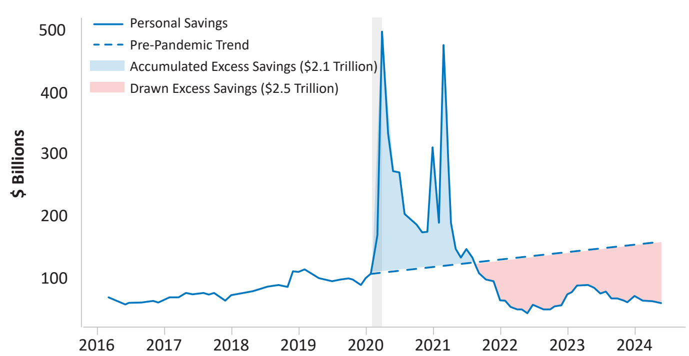

Figure 12
Source: Bureau of Economic Analysis, Federal Reserve Bank of San Francisco
Gray shaded area indicates recessionary period.

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3. **Economic Cracks:** A recent wave of restaurant and small-business closures signals underlying economic stress, particularly in sectors vulnerable to shifts in consumer behavior and rising costs. These closures may trigger a ripple effect, leading to job losses and reduced consumer spending. In addition, early signs of rising delinquencies, particularly among subprime borrowers, suggest that some consumers are beginning to struggle with debt repayment. This trend warrants close monitoring, as it could indicate broader financial difficulties on the horizon. *(Figure 13)*

Weighted Average Auto ABS 60+ Day Delinquencies
2017 through August 2024

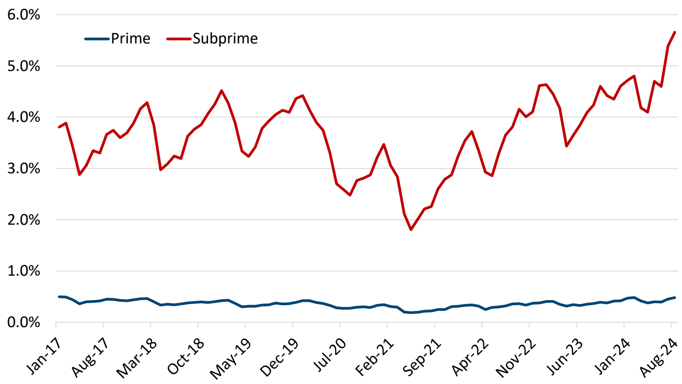


Figure 13
Source: DoubleLine

4. **The Fed and Market Implications:** Despite the Consumer Price Index trending toward 2%, inflation remains a concern, and the Federal Reserve might face challenges in adjusting policy without risking further economic disruption. Persistent inflation could erode consumer purchasing power, leading to reduced spending and increased financial stress. Investors should remain vigilant for signs of mispricing, particularly in sectors heavily exposed to consumer debt. The current environment presents both risks and opportunities, depending on how market participants interpret the evolving economic landscape.

DoubleLine Consumer ABS Positioning

At DoubleLine, we continue to find attractive relative value in select areas of the ABS consumer market. While prepayments, defaults and loss severities require close monitoring, they all remain within reasonable historical average moving bands. Current deal collateral is being originated at higher annual percentage rates, providing excess cash flow, and ABS tranches are being structured with more credit enhancement to mitigate against losses. *(Figure 14)* ABS investors may benefit from attractive risk-adjusted returns as fixed-coupon ABS can potentially offer some of the highest yield per unit of duration in all of fixed income. In the current environment, investors would need to lower their credit quality or significantly extend duration to achieve yields comparable to those offered by ABS.

Consumer ABS May Withstand GFC Loss Multiples for IG-Rated Tranches Due to High Credit Enhancement
2018 through August 2024

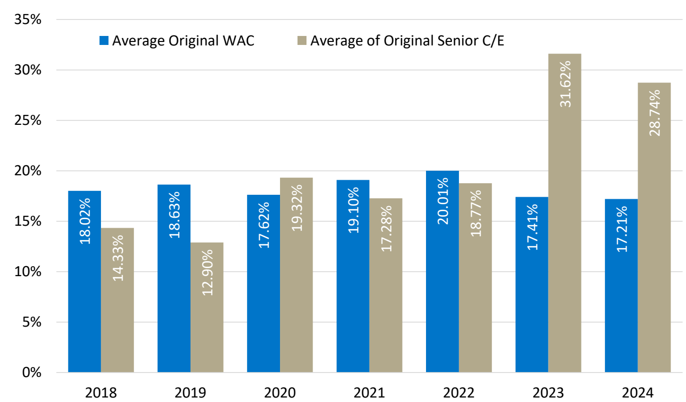


Figure 14
Source: DoubleLine

Recession risk in consumer ABS can be mitigated by credit enhancement and the fact that deals are generally structured to withstand loss multiples worse than those observed during the Great Financial Crisis (GFC) of 2008.

ABS Consumer Loan Stress Cumulative Net Loss Multiples

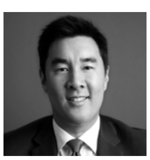
KBRA Rating	Subprime	Prime
AAA	2.5 - 6.0x	4.0 - 6.0x
AA	2.3 - 4.0x	3.3 - 5.0x
A	2.0 - 3.5x	2.8 - 3.8x
BBB	1.8 - 3.0x	2.0 - 3.0x
BB	1.3 - 2.0x	1.3 - 2.3x
GFC loss multiple observed by the Federal Reserve	*1.4x*	*2.6x*

Figure 15
Source: DoubleLine, KBRA, Federal Reserve Bank of Philadelphia

Conclusion

The American consumer has shown remarkable resilience in the face of economic challenges, supported by factors such as strong residential mortgage and labor markets, and substantial savings. However, emerging risks, including wage stagnation, depletion of excess savings, the threat of persistent inflation and weakening employment, pose significant threats to this resilience. By closely monitoring ABS data in conjunction with other key indicators, investors can gain critical insights into the health of the consumer sector and make informed decisions in a rapidly changing economic environment. ■

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 RMBS 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 and 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 ABS 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 multisector fixed-income portfolios. Prior 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.

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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.

Consumer Price Index (CPI) – This index, compiled by the U.S. Bureau of Labor Statistics, examines the weighted average of the prices of a basket of consumer goods and services, such as transportation, food and medical care. It is calculated by averaging price changes for each item in the basket. Changes in the CPI are used to assess price changes associated with the cost of living. The CPI is one of the most frequently used statistics for identifying periods of inflation or deflation.

Duration – A commonly used measure of the potential volatility of the price of debt securities in response to a change in interest rates prior to maturity. Securities with longer duration generally have more volatile prices than securities of comparable quality with shorter duration.

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.

Manheim Used Vehicle Value Index – This index, published monthly by Manheim, tracks wholesale auction prices for used cars.

Mortgage Bankers Association (MBA) Refinance Index – This index, a component of the MBA's Weekly Application Survey, tracks the number of mortgage refinance applications. The index is used to help predict mortgage activity and loan prepayments based on the number of mortgage refinance applications submitted.

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.

S&P CoreLogic Case-Shiller U.S. National Home Price NSA Index – This index tracks the value of single-family housing within the United States and is a composite of single-family price indices for the nine Census Bureau divisions. This index is not seasonally adjusted ("NSA").

Soft Landing – In reference to the economy, a soft landing refers to a slowdown in growth that avoids a recession. Central banks aim for a soft landing when they hike interest rates to cool off an economy and curb inflation without triggering a major reduction in growth.

Subprime – Below-average credit classification of borrowers with a tarnished or limited credit history, and which are subject to higher than average interest rates. Subprime loans carry more credit risk and, as such, will carry higher interest rates.

It is not possible to invest directly in an index.

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