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A TIAA Company

September 2018

Fixed income perspective: preferred securities

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Preferred securities have offered higher income potential compared to other fixed income sectors. Primarily investment grade securities, their low correlation to other fixed income sectors and equities may also strengthen portfolio construction in an uncertain environment. We find preferred securities attractive today from fundamental, technical and valuation perspectives. Market inefficiencies may also provide opportunities to add alpha to fixed income portfolios, and certain structures may have tax advantages.

In today's environment of relatively low interest rates and rising volatility, preferred securities appear attractive for their historically high relative yields and their history of lower sensitivity to rising interest rates. They also may help diversify a fixed income portfolio due to their historically low correlation to other bond and stock asset classes. We believe preferred securities offer many additional benefits, including:

- Tax-advantaged income potential, since many preferred security structures pay qualified dividend income (QDI)
- Reduced interest rate sensitivity through fixed-to-floating rate coupon structures
- Predominantly investment grade securities to help manage credit risk
- Inherent market structure inefficiencies that may create alpha opportunities for active managers
- Solid outlook with historically strong fundamentals, improving technicals and attractive valuations for $1000 par securities

WHAT IS A PREFERRED SECURITY?

Preferred securities don't fit neatly into an asset allocation category, as they contain features of both stocks and bonds. A preferred security can be classified as either debt or equity on the balance sheet, depending on its features. The easiest way to identify preferred securities is by their placement within the corporate capital structure.

Exhibit 1 illustrates how preferreds typically reside on the boundary between debt and equity. In a bankruptcy or liquidation, preferred security owners have a higher priority than common stock owners, but a lower priority than senior debt holders. They will be paid only if there is money left after senior creditors have been made whole.

Exhibit 1: Preferred securities straddle debt and equity

	Class	Seniority
Debt	Secured debt	
	Unsecured debt	
	Unsecured subordinate debt	
	Hybrid securities & tier 2 securities	
Equity	**Preferred stocks & additional tier 1 securities**	
	Common stocks	

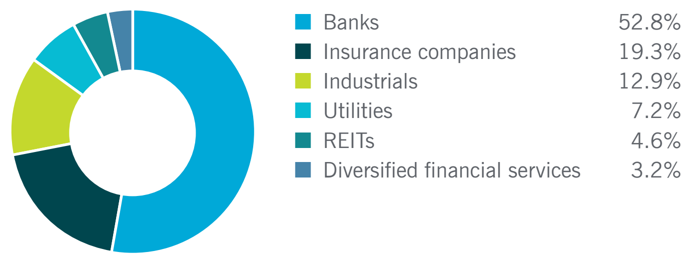
Source: Standard & Poor's.

Preferred securities trace back to the 16th century in England and the 1850s in the United States. However, in the 1980s they evolved from a financing tool for highly regulated utilities to an important financing vehicle for financial institutions.[1] Since then, the preferred securities market has experienced significant growth and a change in issuer composition.

A preferred security can be classified as either debt or equity on the balance sheet.

Financial institutions now make up most of the preferred universe. Since 2008, banks and brokerage firms (domestic and international) have issued preferreds en masse to replenish capital depleted by housing and subprime losses during the financial crisis.

Exhibit 2: Financial institutions dominate the market



Data source: BofA Merrill Lynch, Bloomberg L.P., 30 Jun 2018. Based on the ICE BofA Merrill Lynch U.S. All Capital Securities Index.

TYPES OF PREFERRED SECURITIES

A preferred security's combination of features will classify it as either an equity or a fixed income security, but most preferred securities have elements of each. For example, some preferred securities generate income in the form of interest while others generate income in the form of dividends. Other common features are shown in Exhibit 3.

POTENTIAL BENEFITS OF PREFERRED SECURITIES

Preferred securities potentially offer relatively attractive yields, especially in today's lower rate environment. They may also provide less sensitivity to interest rate changes, portfolio diversification and tax-advantaged income. This combination has created significant interest in the asset class.

Exhibit 3 – Multiple structures exist in the preferred market

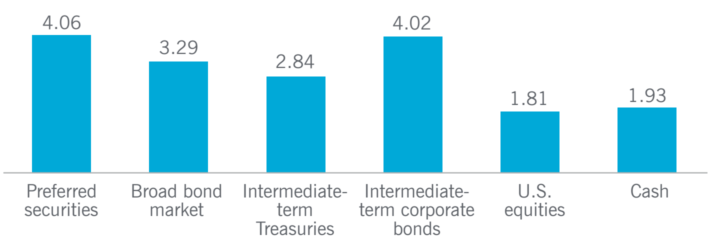
Feature	Senior notes	Trust preferred	Hybrids	Traditional preferred stock	Common stock
Character	Debt	Debt	Debt	Equity	Equity
Priority of claims	Senior to trust preferred, hybrids, preferreds and common equity	Senior to hybrids, preferred and common equity; junior to senior and subordinate debt	Senior to all equity; junior to senior debt, subordinated debt and trust preferreds	Junior to all debt; senior to common equity	Junior to debt and preferred
Nature of payment	Interest	Interest	Interest	Dividend	Dividend
U.S. Tax advantage	None	Typically none	Typically none	DRD[2]/QDI[3]	DRD[2]/ QDI[3]
Term	Dated	Typically 30 – 40 years	Typically 30 – 60 years	Typically perpetual	Perpetual
Payment deferral option	None	Yes, typically 5 – 10 years	Yes, typically up to 10 years	Yes, typically indefinite	Yes, indefinite
Cumulative/ noncumulative	N/A	Typically cumulative	Typically cumulative	Mostly noncumulative	Noncumulative

Sources: Preferred Securities Quarterly Guide, BofA Merrill Lynch, 2 Feb 2018; Nuveen Asset Management.

Attractive relative yields

Because they are lower in the capital structure and thus carry more subordination risk, preferred securities generally contain wider credit spreads and pay a higher level of income than their more senior debt counterparts. As shown in Exhibit 4, preferred securities have had attractive yields relative to other asset classes. They have offered more income-generating power than equities and most fixed income asset classes, with the exception of high yield bonds.

Exhibit 4: Preferred securities have offered attractive yields (%)



Data source: BofA Merrill Lynch; Bloomberg L.P., www.treasury.gov, 30 Jun 2018. **Past performance does not guarantee future results. Representative indexes: Preferred securities:** ICE BofA Merrill Lynch U.S. All Capital Securities Index; **Broad bond market:** Bloomberg Barclays U.S. Aggregate Index; **Intermediate-term Treasuries:** Bloomberg Barclays U.S. Treasury 7-10 Year Index; **Intermediate-term corporates:** Bloomberg Barclays U.S. Corporate Investment Grade Intermediate Index; **U.S. Equities:** S&P 500 Index; **Cash:** 3-Month T-Bill Yield. Investors cannot invest in an index.

Tax-advantaged income potential

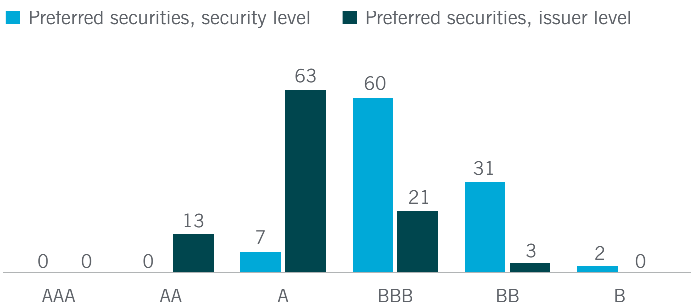
Beyond an attractive yield, a majority of preferred securities pay qualified dividend income (QDI), which may enhance after-tax yield. Since preferred securities are hybrids of stocks and bonds, certain preferred securities generate qualified dividend income. This type of income is typically created by common stocks and taxed at the lower capital gains tax rate. In contrast, traditional fixed income investments create income subject to ordinary income tax rates.

A high quality investment

Preferred securities are generally issued by high quality companies. Due to their subordinate capital structure position, preferreds may be rated 3 to 5 quality notches lower than the senior debt of the same issuer. For instance, an entity issuing a preferred security rated BB would typically have investment grade senior unsecured debt rated BBB or higher. Although preferred securities are lower in the capital structure than traditional bonds, many are investment grade in nature. They may produce a higher yield than investment grade corporate bonds without the credit risk of a below-investment-grade, high yield bond.

Exhibit 5 shows how the quality of the company issuing the preferred securities is typically much higher than the rating of the individual securities. For example, 31% of individual preferred securities are rated BB but only 3% of companies issuing preferred securities are BB rated.

Exhibit 5: Preferreds are predominantly rated investment grade from high quality issuers (%)

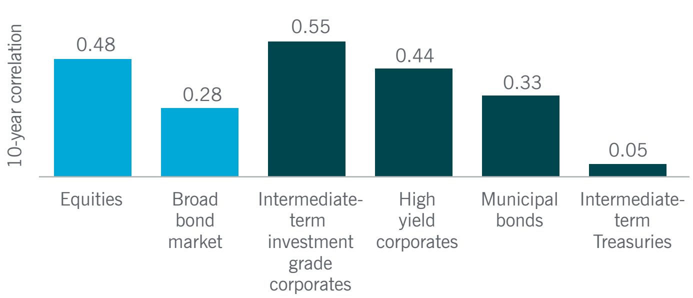


Data source: Bloomberg L.P., BofA Merrill Lynch and Nuveen Asset Management, 30 Jun 2018. **Past performance does not guarantee future results.** Breakdown of the credit quality of the constituent components of each of the indexes being compared. Preferred Securities represented by the ICE BofA Merrill Lynch U.S. All Capital Securities Index; Security Level ratings based on the highest ranking of Standard & Poor's, Moody's or Fitch (including intra-rating gradations like A2/A3). Issuer Level ratings based on the highest ranking of Standard & Poor's, Moody's or Fitch using Bloomberg's S&P LT Issuer Rating, Moody's Issuer Rating and Fitch's Senior Unsecured Ratings. AAA, AA, A and BBB are investment grade ratings; BB, B, CCC/CC/C and D are below-investment-grade ratings. Investors cannot invest in an index.

Increased diversification

Since preferred securities include features of both bonds and stocks, it is not surprising that the asset class exhibits relatively low correlation to both traditional fixed income and equity categories, as shown in Exhibit 6. This means that adding a slice of preferred securities to a portfolio may improve overall portfolio diversification.

Exhibit 6: Preferreds may improve portfolio diversification



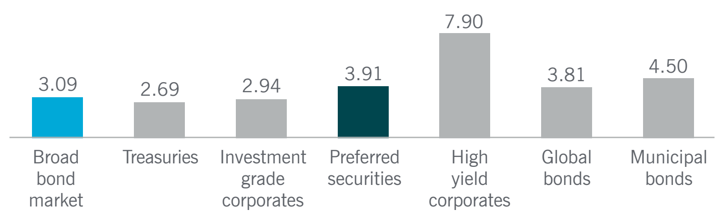
Data source: Bloomberg, L.P.; BofA Merrill Lynch; Nuveen Asset Management, 30 Jul 2007 to 30 Jun 2018. **Past performance does not guarantee future results. Representative indexes: Preferred Securities:** ICE BofA Merrill Lynch Preferred Stock Fixed Rate Index; **Equities:** S&P 500 Index; **Broad bond market:** Bloomberg Barclays U.S. Aggregate Bond Index; **Intermediate-term investment grade corporates:** Bloomberg Barclays Intermediate Investment Grade Corporate Index; **High yield corporates:** Bloomberg Barclays U.S. High Yield Corporate Bond Index; **Municipal bonds:** Bloomberg Barclays Municipal Bond Index; **Intermediate-term Treasuries:** Bloomberg Barclays 7-10 Year U.S. Treasury Index. Investors cannot invest in an index. Correlation ranges between –1 and +1. A correlation coefficient of +1 implies that as one security moves, either up or down, the other security will move in the same direction. A correlation coefficient of –1 means that if one security moves in either direction the other security will move in the opposite direction. Correlation of 0 means the movements of the securities are completely random.

Less sensitivity to rising interest rates

With interest rates at moderately low levels, many investors continue to be concerned about the potential impact of rising rates. Indeed, when interest rates go up, bond prices go down, but different types of bonds have varying sensitivities to changes in interest rates.

The higher average coupon rate of preferred securities can help offset the negative price impact of rising rates. And preferred securities are often more sensitive to changes in credit spreads than other types of bonds. On a relative basis they may perform well during periods of gradually increasing interest rates, as credit spreads often tighten during periods of rising rates. As shown in Exhibit 7, preferred securities actually outperformed many traditional fixed income categories during the last period of gradually increasing fed funds rates.

Exhibit 7: Preferreds delivered positive returns during the last rate increase cycle (%)



Data source: Bloomberg L.P.; BofA Merrill Lynch and Nuveen Asset Management, 01 Jun 2004 – 30 Jun 2006. **Past performance does not guarantee future results.** During this period the fed funds rate increased 17 times from 1.00% to 5.25%. Representative indexes: **Broad bond market:** Bloomberg Barclays U.S. Aggregate Bond Index; **Treasuries:** Bloomberg Barclays U.S. Treasury Index; **Investment grade corporates:** Bloomberg Barclays U.S. Investment Grade Corporate Index; **Preferred securities:** ICE BofA Merrill Lynch U.S. Preferred Stock Fixed Rate Index; **High yield corporates:** Bloomberg Barclays U.S. High Yield Corporate Bond Index; **Global bonds:** Bloomberg Barclays Global Aggregate Bond Unhedged Index; **Municipal bonds:** Bloomberg Barclays Municipal Bond Index. Investors cannot invest in an index.

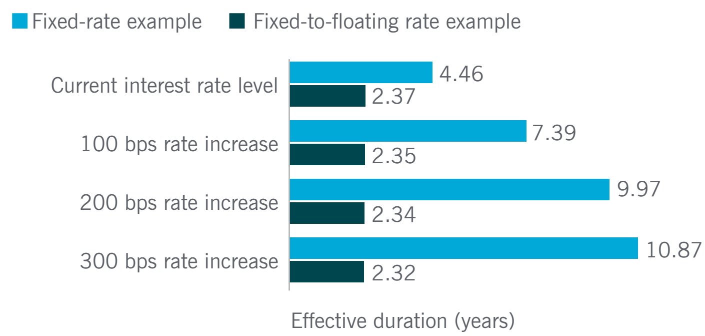
WHY CAN PREFERREDS PERFORM DURING PERIODS OF RISING RATES?

Since most preferreds have longer-dated maturities (many are perpetual), it may seem counterintuitive for them to perform in a rising rate environment. Longer-maturity securities are generally more sensitive to rising rates. We believe preferred securities may exhibit attractive relative returns during periods of rising rates for two main reasons:

- **Banks represent about 55% of the issuer base,**[4] and we think the banking sector will benefit from rising interest rates. Bank profit margins will likely improve as interest rates rise and banks can earn more on loans and investments. A higher interest rate environment generally means the economy is improving, which can result in a higher demand for loans and a decreasing percentage of nonperforming loans.
- **Some preferred securities have a fixed-to-floating coupon structure,** making the securities less sensitive to rising rates. These security structures often contain the following features:
  - Pay a fixed coupon for a preset number of years (commonly 5 or 10 years), then convert to a floating rate coupon for the remaining life of the security or until it is called (known as fixed-to-floating rate coupons).
  - The floating rate coupon is based on a benchmark rate, such as 3-month LIBOR, plus a predetermined spread set when the security is issued.

Compared to fixed-rate coupon structures, fixed-to-floating rate coupon structures typically experience less extension of duration when rates rise. This feature makes them less sensitive to rate changes in a rising rate environment. They usually experience better relative price performance, since the prices of lower duration bonds are less affected by rising rates. Lastly, the floating rate nature of the coupon allows the securities to capture increases in interest rates, because the coupon should increase with interest rates.

Exhibit 8: Securities with fixed-to-floating rate coupons remain less sensitive to interest rate changes



Data source: Bloomberg L.P. and The Yield Book, 31 Mar 2018. **Past performance is no guarantee of future results.** Assumes immediate parallel shift of the 31 Mar 2018 yield curve with OAS and volatility held constant. This hypothetical scenario is for informational purposes only. Scenario data is provided by a third-party source believed to be reliable. Securities mentioned are used as examples for educational/informational purposes only; inclusion does not constitute a recommendation to buy or sell or imply inclusion in any Nuveen investment vehicle.

MARKET INEFFICIENCIES MAY CREATE ALPHA OPPORTUNITIES

In addition to the various structures detailed in Exhibit 3, the more than $500 billion U.S. preferred securities market is primarily composed of two types of issues:[5]

- $25 Par Value Securities that trade on the major stock exchanges and target retail investors.
- $1000 Par Value Securities that trade over the counter and target institutional investors.

These distinct market segments offer opportunities for a professional asset manager to add alpha by managing portfolios between these denominations.

Mispricing between issues

Two preferred markets means pricing discrepancies can and do often occur. For example, a company may issue both $25 and $1000 par value securities with the same credit and structural risk. A professional manager can compare the difference in economics for essentially the same security, selling what they believe to be the overpriced security and buying the underpriced security. In some cases, the difference in valuations between the two markets can be substantial.

Exhibit 9 shows two securities that were nearly identical: one $25 par and one $1000 par. Retail investors often focus on coupon rate when valuing securities, which can drive $25 par securities to relatively rich levels in their search for income. Institutional investors tend to value securities based on yield spreads to U.S. Treasuries or senior debt. The result can be an extreme difference in valuations between the two securities. In this example, an investor could have paid 3% less for the institutional $1000 par securities and gained 65 basis points (bps) in yield versus the same structure in a $25 par.

Exhibit 9: Retail and institutional investors value preferred securities from the same company differently

Issue Type	Retail	Institutional
Par	$25	$1000
Coupon	5.85%	5.90%
Price (% of Par)	104.9%	101.5%
YTC	5.02%	5.67%
Call Date	9/2023	6/2024
Payments	Noncumulative	Noncumulative
Maturity	Perpetual	Perpetual
Rating	Baa2/BBB	Baa2/BBB

Data source: Bloomberg L.P., 31 Mar 2016. **Past performance is no guarantee of future results.** Securities mentioned are used as examples for educational/informational purposes only; inclusion here does not constitute a recommendation to buy or sell or imply inclusion in any Nuveen investment vehicle.

Active management of scheduled call risk

Most of the preferred security universe has explicitly stated call provisions. Most preferred issuers will call securities when they can be refinanced at cheaper levels. This is usually in response to lower interest rates and/or tighter credit spreads, or when the issuer already has excess capital on its balance sheet. Scheduled calls of preferred securities trading at premiums may lead to investor loss, especially when investors are not actively managing yields to call.

Recently, valuations for retail $25 par preferred securities became so rich that a significant population of securities traded at negative yields-to-worst/yields-to-call. This illustrates some of the vast pricing differences between the retail and institutional markets.

In 2018, for example, four fairly large preferred deals were called, all trading at negative yields to call. This resulted in substantial investor losses, in Exhibit 10.

Exhibit 10: Sample scheduled call losses

Ticker	Call date	Price prior to call	Realized yield-to-call	Size of deal ($MM)
HSEB	4 Jun 2018	26.18	-37.7%	3,800
HSEA	4 Jun 2018	26.36	-55.1%	2,200
C P	15 Feb 2018	26.19	-19.3%	3,715
CFC B	6 Jun 2018	25.72	-22.6%	1,495

Data source: Bloomberg L.P. **Past performance is no guarantee of future results.** Realized yield-to-call is annualized. Securities mentioned are used as examples for educational/informational purposes only; inclusion here does not constitute a recommendation to buy or sell or imply inclusion in any Nuveen investment vehicle.

Managing call risk should be a high priority for preferred investors. A professional asset manager has the experience and resources to understand and position portfolios for these extreme pricing scenarios.

Larger block sizes and greater liquidity

The institutional side of the market typically trades in larger block sizes, while the average retail investor typically does not have large enough positions to efficiently access this market.

Access to the international market

Securities issued by non-U.S. entities in U.S. dollars constitute approximately 46% of the U.S. dollar-denominated market.[6] This market tends to be dominated by institutional $1000 par value securities. Retail investors typically ignore this market and research departments provide less coverage. Adding these securities to a portfolio may increase issuer diversification and reduce correlation with U.S. asset classes.

SOLID OUTLOOK FOR PREFERREDS

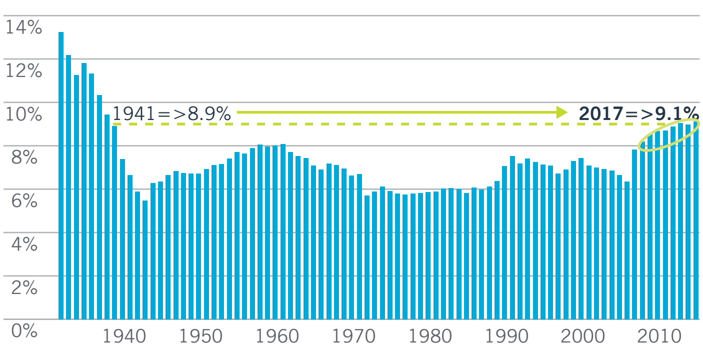
We believe the current market environment presents an opportunity for preferreds. From fundamental, technical and valuation perspectives, we find the asset class attractive.

Fundamentals are strong

Banks in the United States and abroad have increased the amount of capital held on balance sheets through retained earnings and outright capital increases, as mandated by capital requirements set forth by the Dodd-Frank Act and Basel III Accord.

The most recent DFAST (Dodd-Frank Act Stress Test) results released in June 2018 amplify this point. All 35 companies passed this year's test for the fourth year in a row.[7] The 2018 test assumed more dire conditions than previous years, and worse than those experienced during the financial crisis. Under the Adverse Scenario of the stress test, approximately $580 billion in losses were forced onto the companies, and all maintained capital levels above regulatory minimums. On average, these firms retained more capital on their balance sheets in the Adverse Scenario than they held on average in 2007 before the crisis began.[7]

Exhibit 11: Common equity ratios have improved



Data source: Federal Deposit Insurance Corporation, New York Federal Reserve Bank and Bloomberg L.P., 01 Jan 1934 – 31 Dec 2017.

The bank sector also continues to operate under intense regulatory oversight and scrutiny. The banks' post-crisis business model has been de-risked meaningfully with limits on proprietary trading, heavier regulation of the derivatives market and imposed guardrails to meet annual stress tests and capital review requirements.

As a result, we think the credit risk of bank issued preferreds is lower now than in the past. We believe the improvement in credit quality should translate into a lower risk premium (credit spread), resulting in capital appreciation for preferred securities.

Supply and demand are out of balance

U.S. banks proactively raised capital and reduced the size of balance sheets to meet these new capital requirements, which required issuing more common stock and preferred securities. U.S. banks have issued a significant amount of preferred securities, including $32 billion of gross issuance in 2014, $8 billion in 2015 and $18 billion in 2016.[8] We expect net new issue supply to continue to decline. U.S. banks are estimated to issue only $5 billion to $8 billion of additional preferred securities between mid-2017 and 2019.[8] As U.S. banks have become better capitalized, we expect issuance of preferred securities to be fairly limited in the near term.

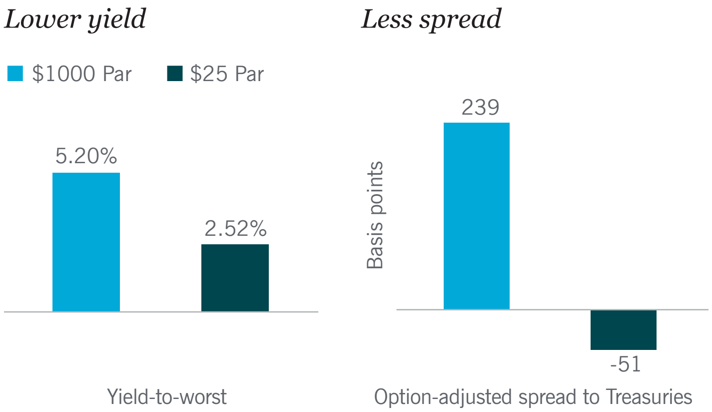
Issuers have also been actively redeeming their securities, resulting in nearly $10 billion of negative net new issue flow year to date. Most of this redemption activity has occurred in the $25 par market. In contrast, $1000 par net supply is roughly flat. This has created a higher scarcity premium for $25 par securities in the short run, leading $25 par preferreds to outperform $1000 par securities year to date. Going forward, we expect net issuance will remain negative, but become more balanced between $25 par and $1000 par securities.

$1000 par market remains more attractive

We continue to find the $1000 par more attractive than $25 par preferreds, despite recent underperformance. We believe these segments offer significantly better relative value and the opportunity to reduce interest rate risk.

The $1000 par securities continue to be significantly cheaper than the $25 par side of the market on a yield and spread basis. The yield-to-worst of $25 par securities was lower than that of $1000 par securities, and the average option-adjusted spread was negative, as shown in Exhibit 12.

Exhibit 12: $25 par preferred securities are expensive on many metrics



Data source: BofA Merrill Lynch; Nuveen Asset Management, 30 Jun 2018. **Past performance does not guarantee future results. Representative indexes: $1000 par preferred:** market capitalization-weighted blend of the ICE BofA Merrill Lynch U.S. Investment Grade Institutional Capital Securities Index and the ICE BofA Merrill Lynch U.S. High Yield Institutional Capital Securities Index; **$25 par preferred:** ICE BofA Merrill Lynch Core Plus Fixed Rate Preferred Index. Investors cannot invest in an index.

In addition to negative net supply, strong demand from retail investors and passive ETFs for $25 par value securities has created these pricing distortions. Investors have historically demonstrated a strong bias for income-generating investments, but cannot always appropriately value securities. They have often been purchasing the retail-sized denominations of $25 par preferred securities based on their high coupon rates alone. As a result, they have driven up the prices of these securities and yields have declined.

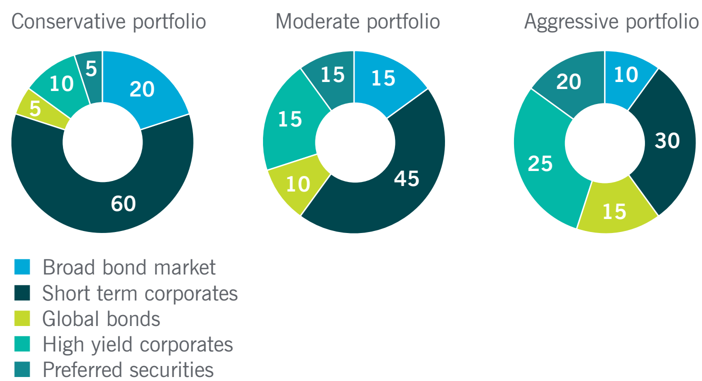
In addition, most passive, preferred-security ETFs only purchase the $25 par value, exchanged-traded securities. As demand for income-generating ETFs has increased, the passive, preferred-security ETFs have also purchased large amounts of $25 par value securities, driving yields down as prices rise.

We also tend to prefer $1000 par securities because they contain a greater number of securities with coupon structures that have reset features. The Federal Reserve hiked rates for the seventh time in June 2018, and interest rates have been rising. As illustrated in Exhibit 8, these structures reduce duration extension risk when rates rise.

ADDING PREFERRED SECURITIES TO A PORTFOLIO

Exhibit 13 shows sample portfolios designed for a rising rate environment using preferred securities. Of course, individual investors should discuss personal circumstances with a professional advisor.

Exhibit 13: Sample hypothetical rising rate fixed income portfolios (%)



Hypothetical portfolio characteristics

	Conservative	Moderate	Aggressive
Yield	3.44%	3.56%	3.86%
Return	3.63%	4.20%	4.88%
Risk	3.20%	4.66%	5.98%

Hypothetical average annual returns during rising rate periods

	Conservative	Moderate	Aggressive
Period 1: 01 Feb 94 - 28 Feb 95	2.08%	1.76%	1.58%
Period 2: 01 Jun 99 - 31 May 00	2.27%	1.04%	-0.22%
Period 3: 01 Jun 04 - 30 Jun 06	3.17%	3.66%	4.34%
Period 4: 01 Jan 13 - 31 Dec 13	0.88%	0.63%	0.92%

Data as of 30 Jun 2018. Returns measured by 10-year total return. Risk is measured by 10-year standard deviation of returns. Sample Portfolios, Risk/Return, Portfolio Characteristics and Performance charts show hypothetical strategies for illustration purposes only and do not reflect actual products currently or previously managed. They should not be relied upon for investment advice. Hypothetical performance does not reflect the deduction of fees and expenses, which would reduce performance in any actual client account. The proposed strategy holdings and weights are subject to change without notice. There is no guarantee the strategies will meet their investment objective. **Past performance is no guarantee of future results.**

Representative indexes: Broad bond market: Bloomberg Barclays U.S. Aggregate Bond Index; **Short term corporates:** Bloomberg Barclays Credit 1-3 Year Index; **High yield:** Bloomberg Barclays U.S. Corporate High Yield Index; **Global bonds:** Bloomberg Barclays Global Aggregate Bond Unhedged Index; **Preferred securities:** ICE BofA Merrill Lynch Preferred Stock Fixed Rate Index. Market indexes do not include fees. Investors cannot invest directly in an index.

During Period 1, the fed funds rate increased 7 times from 3.00% to 6.00%; Period 2, 6 times from 4.75% to 6.50%; Period 3, 17 times from 1.00% to 4.25%. During Period 4, the 10-Year Treasury yield increased from 1.86% to 3.04% in 2013, the period commonly known as the Taper Tantrum.

For more information, visit us at nuveen.com.

1 "Hybrid Capital," J.P. Morgan, 14 Oct 2014.

2 Dividend Received Deduction allows corporations to deduct 70% of the income received from federal taxable income. Please consult a qualified tax advisor for details on your particular situation.

3 Qualified Dividend Income is taxed at the capital gains rate.

4 Data source: ICE BofA Merrill Lynch U.S. All Capital Securities Index, 30 Jun 2018.

5 Data source: Stifel, 30 Jun 2018. $50 and $100 par securities exist, but they are much less common.

6 Data source: BofA Merrill Lynch, Nuveen Asset Management, 30 Jun 2018.

7 Data source: U.S. Federal Reserve.

8 Data source: Stifel Nicolaus.

Glossary

Alpha is the excess returns of an investment relative to the return of a benchmark index. A **cumulative dividend** is a right associated with certain preferred shares of a company. A fixed amount or a percentage of a share's par value must be remitted periodically to shareholders who own these shares without regard to the company's earnings or profitability. **Noncumulative** describes a type of preferred stock that does not pay the stockholder any unpaid or omitted dividends. Preferred stock shares are issued with a stated dividend rate, which may be a stated dollar amount or a percentage of the par value. If the corporation chooses not to pay dividends in a given year, the investor does not have the right to claim any of the unpaid dividends in the future. **Standard deviation** is a measure of the dispersion of a set of data from its mean. If the data points are farther from the mean, there is higher deviation within the data set. It is used to measure the volatility of an investment. **Yield** is the income return on an investment, such as the interest or dividends received from holding a particular security. **Yield-to-worst** is the lowest potential yield that can be received on a bond without the issuer actually defaulting. **Bloomberg Barclays Credit 1-3 Yr Index** is a broad-based benchmark that measures the return of bonds with 1-3 year maturities. B**loomberg Barclays 7-10 Year U.S. Treasury Index** contains securities in the Treasury Index with a maturity from 7 up to (but not including) 10 years. **Bloomberg Barclays Global Aggregate Unhedged Index** measures the performance of global bonds. It includes government, securitized and corporate sectors and does not hedge currency. **Bloomberg Barclays Municipal Bond Index** covers the USD denominated long-term tax-exempt bond market. The index has four main sectors: state and local general obligation bonds, revenue bonds, insured bonds, and prerefunded bonds. **Bloomberg Barclays U.S. Aggregate Bond Index** represents securities that are SEC-registered, taxable and dollar denominated. The index covers the U.S. investment grade fixed rate bond market, with index components for government and corporate securities, mortgage pass-through securities and asset-backed securities. **Bloomberg Barclays U.S. Intermediate Investment Grade Corporate Index** is a broad-based benchmark that measures the intermediate investment grade, fixed-rate, taxable corporate bond market. **Bloomberg Barclays USD Capital Securities Index** contains securities viewed as hybrid fixed income securities that either receive regulatory capital treatment or a degree of "equity credit" from the rating agencies. This generally includes Tier 2/Lower Tier 2 bonds, perpetual step-up debt, step-up preferred securities, and term preferred securities. **Bloomberg Barclays U.S. Treasury Index** includes public obligations of the U.S. Treasury. Treasury bills are excluded by the maturity constraint but are part of a separate Short Treasury Index. In addition, certain special issues, such as state and local government series bonds (SLGs), as well as U.S. Treasury TIPS, are excluded. STRIPS are excluded from the index because their inclusion would result in double-counting. **Bloomberg Barclays U.S. Corporate Index** measures the market of USD-denominated, fixed-rate, taxable corporate bonds. **Bloomberg Barclays U.S. High Yield Corporate Index** measures the market of USD-denominated, non-investment grade, fixed rate, taxable corporate bonds. Securities are classified as high yield if they fall within the middle rating of Moody's, Fitch, and S&P is Ba1/BB+/BB+ or below. The index excludes emerging market debt. **ICE BofA Merrill Lynch Preferred Stock Fixed Rate Index** is designed to replicate the total return of a diversified group of investment grade preferred securities. **ICE BofA Merrill Lynch U.S. All Capital Securities Index** is a subset of the ICE BofA Merrill Lynch U.S. Corporate Index including all fixed-to-floating rate, perpetual callable and capital securities. **S&P 500 Index** is a capitalization-weighted index of 500 stocks designed to measure the performance of the broad domestic economy.

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A word on risk

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