

# The Bond Quiz

Do you know bonds like you  
know stocks?

# THE BOND QUIZ

**1** Bond market growth

**2** Institutional investors

**3** Active vs. index

**4** Know your benchmarks

**5** Everyday investors

# Bond market growth

## Question #1

What is the **fastest growing** bond investment with U.S. financial advisors?

**A.**  
**Individual  
Bonds**

**B.**  
**Bond Mutual  
Funds**

**C.**  
**SMA**s

**D.**  
**Bond ETFs**

# Bond market growth

## Question #1

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**C.**  
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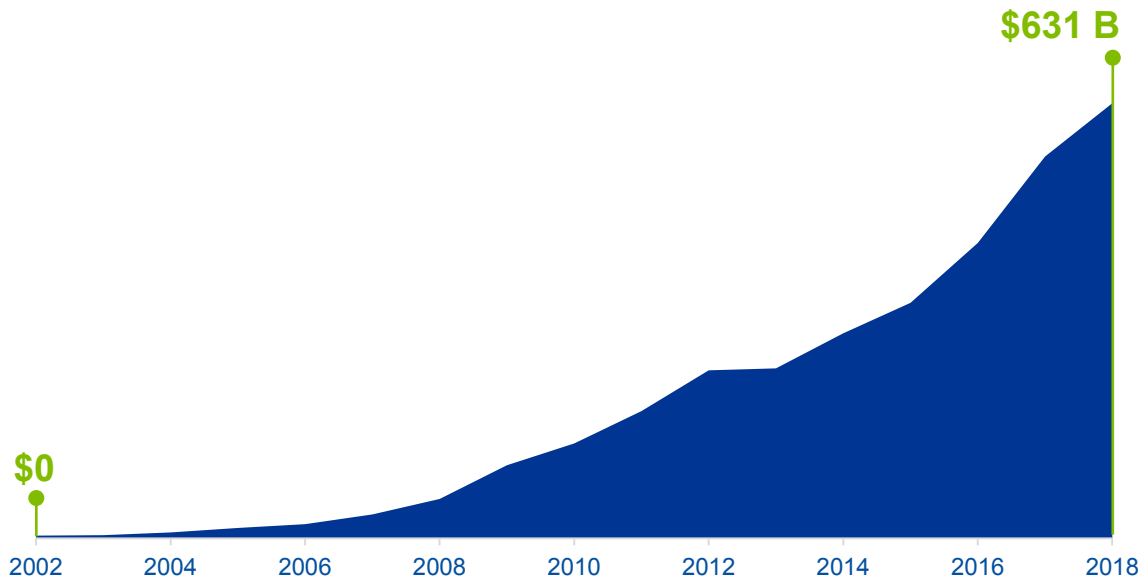
**D.**  
**Bond ETFs**

# What is the fastest growing bond market?

ANSWER: BOND ETFs

## U.S. Bond ETF growth is remarkable...

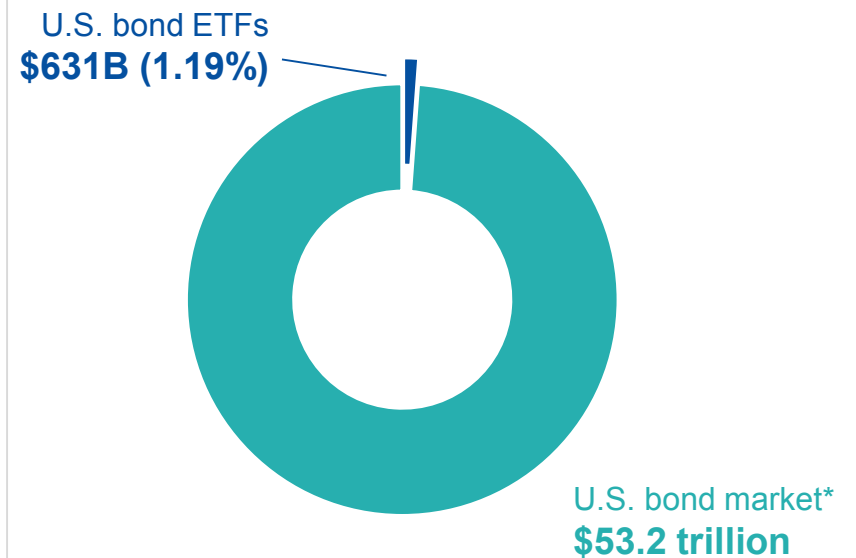
U.S. Bond ETF AUM



**LQD** 2002  
iShares launches first Bond ETF

## ...with room to grow

ETFs as % of U.S. bond market



Source: Bloomberg 12/31/2018 – Universe denominated by BBG Barclays Multiverse Market Value. \* Entire universe of the U.S. bond market.

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# Institutional investors

## Question #2

What is one of the **top reasons** why institutions use bond ETFs?

**A.**  
**Diversification**

**B.**  
**Liquidity**

**C.**  
**Low trading costs**

# Institutional investors

## Question #2

What is one of the **top reasons** why institutions use bond ETFs?

**A.**  
**Diversification**

**B.**  
**Liquidity**

**C.**  
**Low trading costs**



# What is one of the top reasons institutions use bond ETFs?

ANSWER: LIQUIDITY

## Liquidity

Is one of the top three reasons institutions cite for investing in bond ETFs

2017 Greenwich Associates survey

Top three reasons institutions use bond ETFs:

Liquidity

Easy to use

Fast execution

83%

of respondents said **better liquidity** drives their use of bond ETFs<sup>1</sup>

Mutual fund managers

Pension funds

Insurance companies

\$50M

1 in 5 institutions surveyed have executed bond ETF trades **over \$50 million**<sup>2</sup>

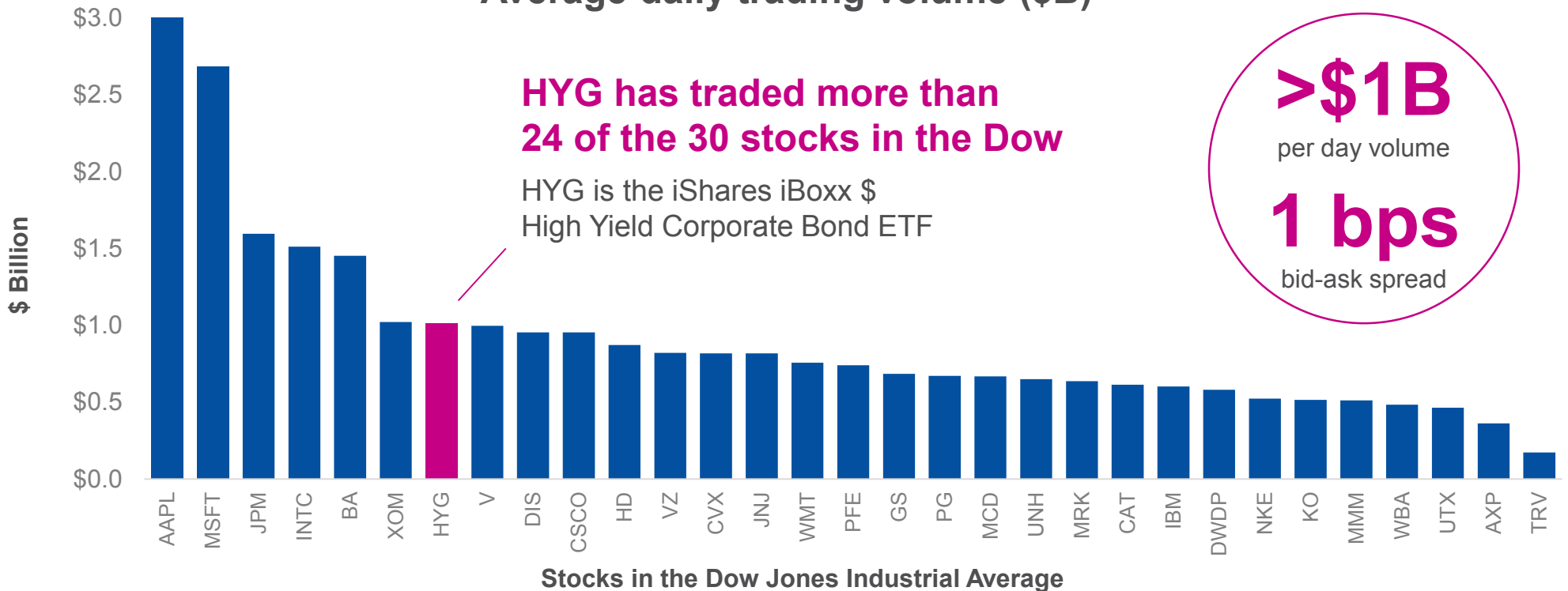
<sup>1</sup> Source: Source: Greenwich Associates 2018. Bond ETF Study: Institutional Investors Embrace Bond ETFs. Based on 108 survey respondents. <sup>2</sup> Source: Source: Greenwich Associates 2017. Bond ETF Study: Institutional Investors Embrace Bond ETFs. Based on 87 survey responses. There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.

# What is one of the top reasons institutions use bond ETFs?

ANSWER: LIQUIDITY

## Bond ETFs: liquid and low cost

Average daily trading volume (\$B)



<sup>1</sup> Source: Bloomberg, BlackRock, S&P Dow Jones, as of 6/30/18. Volume based on 20-day average. There can be no assurance an active trading market for shares of an ETF will develop or be maintained. HYG spread data as per NYSE Arca, Bloomberg as of 10/12/2018

# What is one of the top reasons institutions use bond ETFs?

ANSWER: LIQUIDITY

## Cars

*Think about how you used to buy them*



1980s  
**Car dealerships**

**INVENTORY**

<100 cars per lot<sup>1</sup>

**PRICE**

**Negotiated**

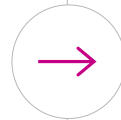
**INFORMATION**

**Asymmetric**

Dealer knows market pricing,  
buyer does not

**COMMISSION**

**Undisclosed**



Today  
**Online**



**Massive**

**All-to-all**

bid/ask on eBay

**Transparent**

with all fees displayed

**Disclosed**

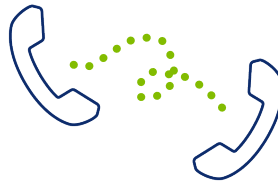


<sup>1</sup> Source: NIADA 2017 Used Car Industry Report; 90% of car dealerships had inventory less than 100 vehicles.

# What is one of the top reasons institutions use bond ETFs?

ANSWER: LIQUIDITY

## More liquidity, greater inventory and tighter spreads



### OTC (over-the-counter)

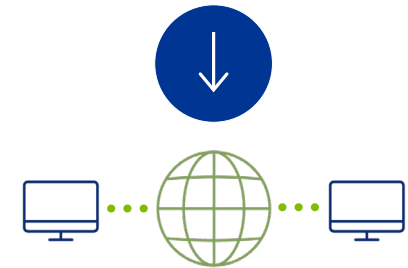
**Key markets**  
Bonds, penny stocks

**Trading spreads**  
Higher<sup>1</sup>

**Pricing**  
1-to-1 negotiated

**Information**  
Proprietary

vs.



### Exchange traded

**Key markets**  
Stocks, ETFs

**Trading spreads**  
Lower

**Pricing**  
All-to-all

**Information**  
Public

<sup>1</sup> Source: BlackRock, Bloomberg, Barclays, NYSE Arca, as of 6/29/2018. Compares basket bid/offer spread of iShares bond ETFs vs the underlying securities of the indexes. There can be no assurance that an active trading market for shares of an ETF will develop or be maintained.

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# Active vs. index

## Question #3

Do the world's largest investors use  
**active or index** for bonds?

**A.**  
**Predominantly  
active**

**B.**  
**Predominantly  
index**

**C.**  
**Both**

# Active vs. index

## Question #3

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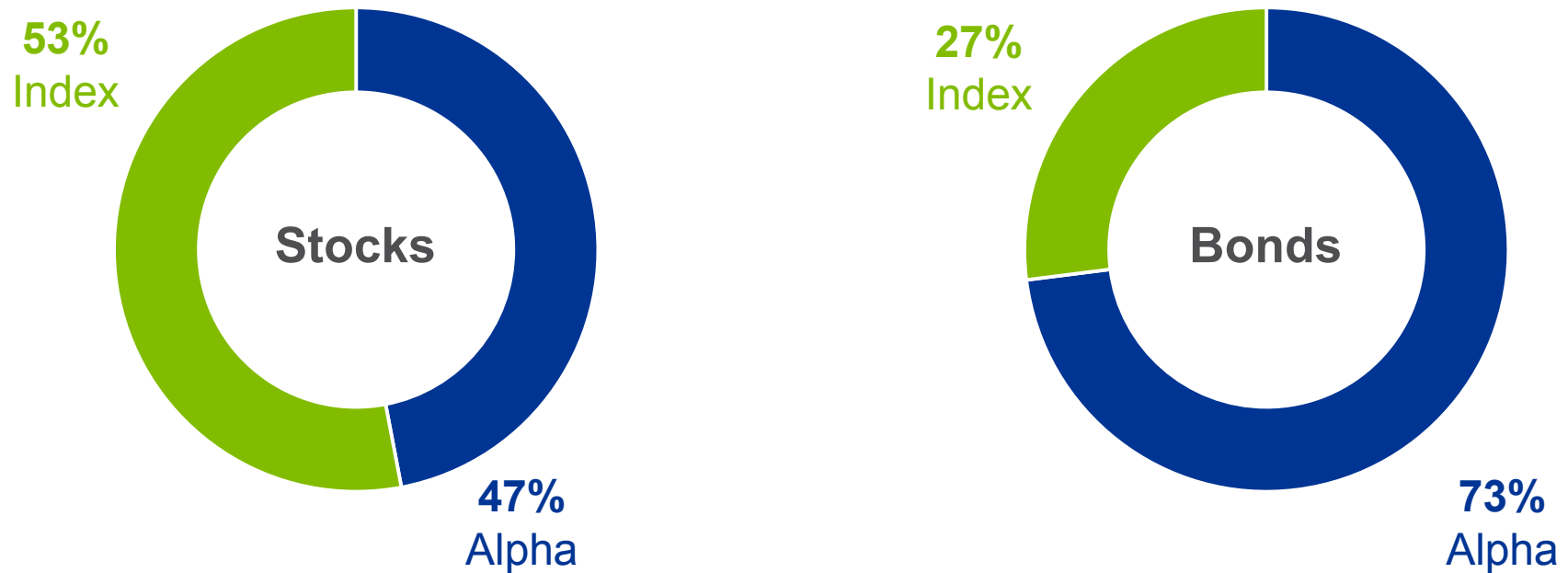
**C.**  
**Both**

# Active *vs.* *And* index

ANSWER: top global investors USE BOTH

## Top 55 Public U.S. Pension Plans

Asset breakdown



**Active AND index for stocks AND bonds.**

Source: 2019 Pension & Investments, public data of 55 large US pension plans. Above is for public traded investments and does not include allocations to privately traded investments.

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# Active *vs. And* index

ANSWER: top global investors USE BOTH

## Taxable fixed income

### High conviction alpha fund

- Seeks stability in all rate environments
- Diversified sources of return



**BlackRock  
Strategic Income  
Opportunities Fund**



### Core bond ETF

- Reduce expenses
- Broad market diversifier



**iShares Core U.S.  
Aggregate Bond ETF**

	Annualized return since 2010	Volatility	Average effective duration	Blended expense ratio
<b>50% BSIIX / 50% AGG</b>	✓ <b>3.43%</b>	✓ <b>2.15%</b>	✓ <b>4.26 years</b>	✓ <b>0.48%</b>
Traditional core bonds	3.13%	2.64%	5.37 years	0.76%

**Past performance does not guarantee future results. For standardized performance, see the end of this document.** Data is annualized since Rick Rieder was named PM of BSIIX in March 2010. Source: Morningstar Direct as of 12/31/2018. Traditional core bonds are represented by the Morningstar Intermediate-Term Bond category average. The blended portfolio is hypothetical and for illustrative purposes only and reflects reinvestment of distributions. Other share classes of the fund will result in different outcomes. Diversification may not protect against market risk of loss of principal. Buying and selling shares of ETFs will result in brokerage commissions.

# Active *vs. And* index

ANSWER: top global investors USE BOTH

## Municipal bonds

### High conviction alpha fund

- Diversified across bond markets and trading strategies
- Seeks principal protection



**BlackRock  
Strategic Municipal  
Opportunities Fund**



### Core bond ETF

- Reduce expenses
- Exposure to U.S. muni market



**iShares  
National Muni  
Bond ETF**

**50% MAMTX / 50% MUB**

Traditional muni bonds

**Annualized return**  
Since 1/27/2014

✓ **3.61%**

2.42%

**Sharpe Ratio**

✓ **2.36**

1.93

**Blended  
expense ratio**

✓ **0.42%**

0.76%

Past performance does not guarantee future results. For standardized performance, see the end of this document. Source: Morningstar Direct as of 12/31/18. Traditional muni bonds are represented by the Morningstar Muni National Interim bond category average. The blended portfolio is hypothetical and for illustrative purposes only and reflects reinvestment of distributions. Other share classes of the fund will result in different outcomes. Prior to 1/27/14, the Strategic Municipal Opportunities Fund followed a different investment strategy under the name Intermediate Municipal Fund. Diversification may not protect against market risk or loss of principal.

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# Know your benchmarks

## Question #4

How much **high yield** is in the Bloomberg Barclays U.S. Aggregate Bond Index?

**A.**  
**3.1%**

**B.**  
**5.9%**

**C.**  
**9.2%**

**D.**  
**14.3%**

# Know your benchmarks

## Question #4

How much **high yield** is in the Bloomberg Barclays U.S. Aggregate Bond Index?

~~A.  
3.1%~~

~~B.  
5.9%~~

~~C.  
9.2%~~

~~D.  
14.3%~~

**Sorry....trick question!**

THE BOND QUIZ

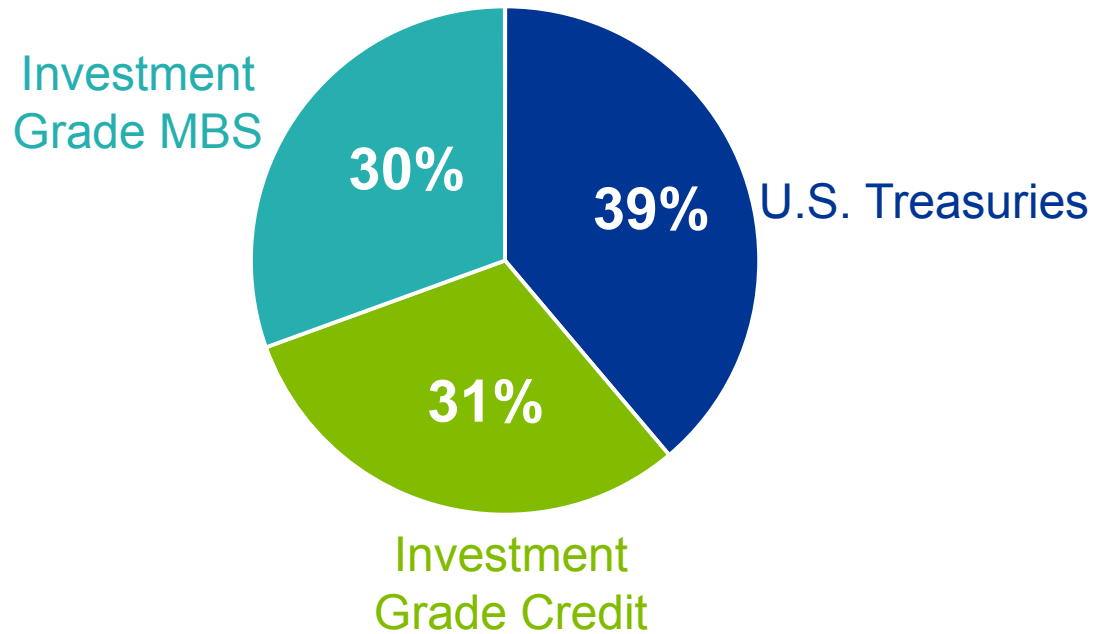
# How much high yield is in the Bloomberg Barclays U.S. Aggregate Bond Index?

ANSWER: 0%

The BBG Bar Cap Agg. is

0%

High yield...



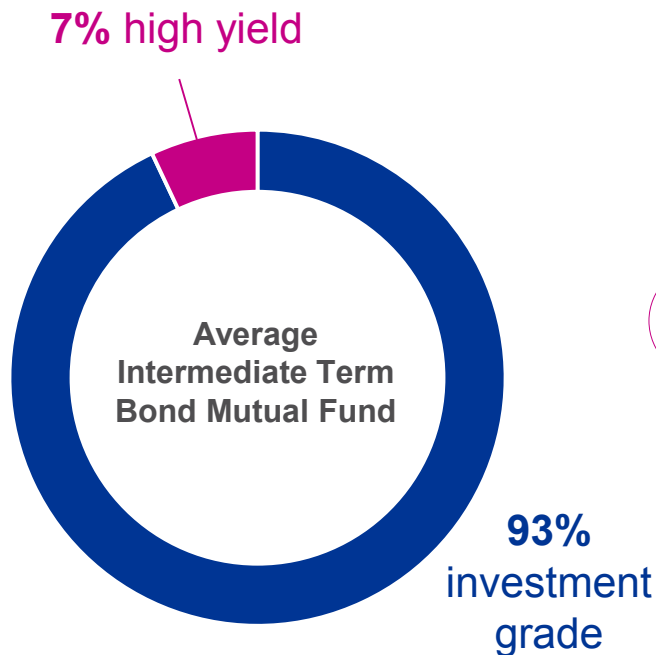
...but how much high yield is in your core bond fund?

## THE BOND QUIZ

# How much high yield is in the Bloomberg Barclays U.S. Aggregate Bond Index?

ANSWER: 0%

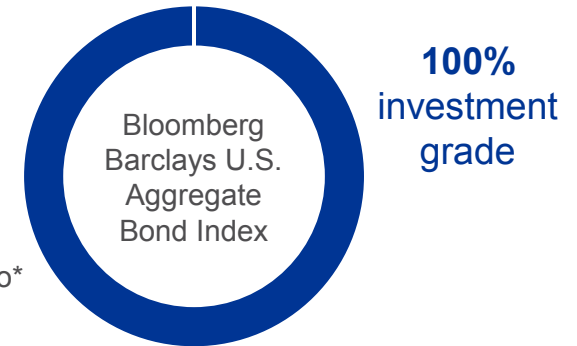
### Core bond mutual funds



### Is your fund tracking the appropriate benchmark?

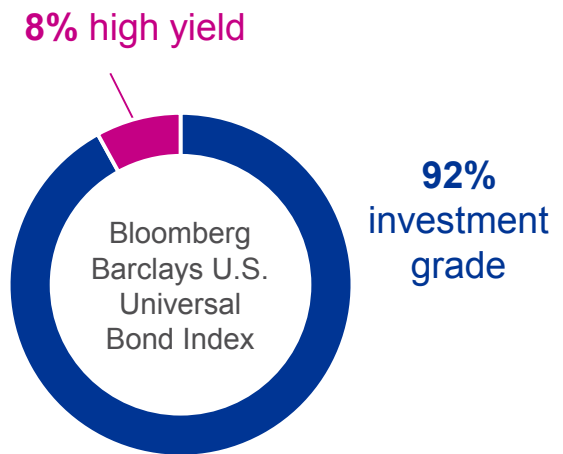
#### “The Agg”

**AGG** iShares Core U.S. Aggregate Bond ETF  
0.05% expense ratio\*



#### “The Universal”

**IUSB** iShares Core Total USD Bond Market ETF  
0.06% expense ratio\*



Source: BlackRock Solutions, Morningstar. US Universal Bond Index credit quality as of 12/31/18. Intermediate-Term Bond credit quality uses the 5 year average ending 12/31/18. \*Contractual fee waivers are in effect for AGG and IUSB through 6/30/26 and 2/29/24 respectively. Gross expenses for this fund are 0.06% and 0.07% respectively.

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# How much high yield is in the Bloomberg Barclays U.S. Aggregate Bond Index?

ANSWER: 0%

“My bond fund beats AGG”

Does it beat IUSB?

## Intermediate Term Bonds

### Returns

1 Year

3 Year

**AGG**

iShares Core U.S. Aggregate Bond ETF  
0.05% expense ratio\*

**2.20%**

**1.89%**

**IUSB**

iShares Core Total USD Bond Market ETF  
0.06% expense ratio\*

**2.00%**

**2.55%**

Morningstar Active Intermediate-Term Bond Category  
0.76% average expense ratio

**1.67%**

**2.30%**

Source: Bloomberg, Morningstar, as of 1/31/19. Returns based on NAV. **Past performance does not guarantee future results. For standardized performance, see the end of this document.**

\*Contractual fee waivers are in effect for AGG and IUSB through 6/30/26 and 2/29/24 respectively. Gross expenses for this fund are 0.06% and 0.07% respectively.



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# Everyday investors

## Question #5

Why do **everyday investors** like Bond ETFs?

**A.**  
**Competitive  
performance**

**B.**  
**Low cost**

**C.**  
**Tax efficiency**

# Everyday investors

## Question #5

Why do **everyday investors** like Bond ETFs?

A.  
Competitive performance

B.  
Low cost

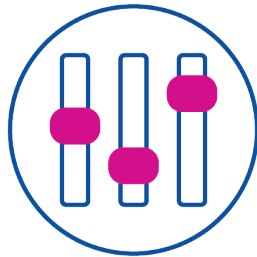
C.  
Tax efficiency

**All of the above**

# Why do everyday investors like Bond ETFs?

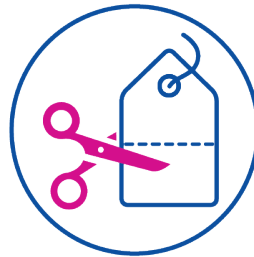
ANSWER: SAME POTENTIAL BENEFITS AS EQUITY ETFs

## Bond ETFs



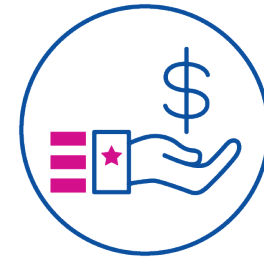
### Competitive performance

AGG has outperformed 61% of the funds in Intermediate-Term Bond Category<sup>1</sup> over the last 5 years



### Low cost

AGG is 0.71% less expensive than the average fund in the open-end Intermediate-Term Bond Category<sup>2</sup>



### Tax efficient

3% of U.S. iShares Bond ETFs distributed capital gains in 2018<sup>3</sup>

<sup>1</sup> Source: Morningstar, as of 1/31/19. Comparison universe is ETFs and mutual funds in the U.S. Open-End Intermediate-term Bond Morningstar Category and uses total return. *Fund is rated against 150 funds in its Morningstar category, based on total return.* For more information on Morningstar Rankings, please see the appendix. Performance may be different for other time periods. Past performance does not guarantee future results. <sup>2</sup> Source: BlackRock, Bloomberg and Morningstar Direct as of 1/31/2019. AGG's expense ratio is 0.05%, which is 0.71% less expensive than the average open end intermediate-term bond within the intermediate-term Bond category in Morningstar, which has an expense ratio of 0.76%. Transactions in shares of ETFs will result in brokerage commissions and will generate tax consequences. All regulated investment companies are obliged to distribute portfolio gains to shareholders. <sup>3</sup> Morningstar as of 12/31/18. **Past performance and distributions not indicative of future results.**

# THE BOND QUIZ

## Key takeaways

Bond ETFs are the **fastest growing** bond category

**Liquidity is one of the top reasons** institutions like Calpers use bond ETFs

**Alpha and index.** The world's largest investors treat bonds just like stocks – they do active and index for both

Treat bond managers the same way you treat equity managers – hold them to **benchmark scrutiny** and watch out for overweights to High Yield

Bond ETFs have the same potential benefits as equity ETFs: **competitive performance, low cost, and tax efficiency**

# Appendix: Standardized performance as of 12/31/18

Fees as of current prospectus. all other data as of 12/31/18.

Ticker	Fund Name	Fund Inception Date	Gross Expense Ratio	30-Day SEC Yield (With / Without Waiver)	Contractual Fee Waiver Expiration (If Applicable)	1-Year Returns		5-Year Returns		10-Year Returns		Since Inception	
						NAV	Mkt Price	NAV	Mkt Price	NAV	Mkt Price	NAV	Mkt Price
AGG	iShares Core U.S. Aggregate Bond ETF	9/22/2003	0.06%	3.13% / 3.12%	6/30/2026	-0.05%	0.08%	2.49%	2.48%	3.30%	3.11%	3.75%	3.76%
IUSB	iShares Core Total USD Bond Market ETF	6/10/2014	0.07%	3.44% / 3.43%	2/29/2024	-0.38%	-0.34%	--	--	--	--	2.18%	2.23%
MUB	iShares National Muni Bond ETF	9/07/2007	0.07%	2.57%	--	0.86%	0.93%	3.38%	3.49%	4.19%	3.89%	3.75%	3.76%

Average annual returns as of 12/31/2018 (%)	1 Year	5 Year	10 Year	Since Inception (Date)
Strategic Municipal Opportunities Fund (MAMTX)	1.26	4.59	5.62	5.26 (11/26/1986)
BlackRock Strategic Income Opportunities Fund (BSIIX)	1.47	2.44	5.98	4.06 (03/01/2010)

The performance quoted represents past performance of specific funds and does not guarantee future results for such funds. Investment return and principal value of an investment will fluctuate so that an investor's shares, when sold or redeemed, may be worth more or less than the original cost. Current performance may be lower or higher than the performance quoted.

Performance data current to the most recent month end may be obtained by visiting [www.iShares.com](http://www.iShares.com) or [www.blackrock.com](http://www.blackrock.com).

Shares of iShares Funds are bought and sold at market price (not NAV) and are not individually redeemed from the Fund. Brokerage commissions will reduce returns. Market returns are based upon the midpoint of the bid/ask spread at 4:00 p.m. eastern time (when NAV is normally determined for most iShares Funds), and do not represent the returns you would receive if you traded shares at other times. Performance shown reflects fee waivers and/or expense reimbursements by the investment advisor to the fund for some or all of the periods shown. Performance would have been lower without such waivers.

# Important information

## More information on Morningstar rankings

Total return represents changes to the NAV and accounts for distributions from the funds (excluding any applicable sales charges). In reference to slide 28, this is how AGG performed against its peers for the 1, 5, and 10 year periods:

<b>Funds – ranking data as of 12/31/2018</b>	<b>Morningstar category</b>	<b>1 year</b>		<b>5 year</b>		<b>10 year</b>	
		Outperformed (%)	# of funds	Outperformed (%)	# of funds	Outperformed (%)	# of funds
iShares Core U.S. Aggregate Bond ETF (AGG)	Intermediate- Term Bond	68	1019	64	767	20	560

**Carefully consider the Funds' investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds' prospectuses or, if available, the summary prospectuses which may be obtained by visiting [www.iShares.com](http://www.iShares.com) or [www.blackrock.com](http://www.blackrock.com). Read the prospectus carefully before investing.**

### Investing involves risk, including possible loss of principal.

Investment comparisons are for illustrative purposes only. To better understand the similarities and differences between investments, including investment objectives, risks, fees and expenses, it is important to read the products' prospectuses.

The strategies discussed are strictly for illustrative and educational purposes and are not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. There is no guarantee that any strategies discussed will be effective. The information presented does not take into consideration commissions, tax implications, or other transactions costs, which may significantly affect the economic consequences of a given strategy or investment decision.

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**Carefully consider the Funds' investment objectives, risk factors, and charges and expenses before investing. This and other information can be found in the Funds' prospectuses or, if available, the summary prospectuses which may be obtained by visiting [www.iShares.com](http://www.iShares.com) or [www.blackrock.com](http://www.blackrock.com). Read the prospectus carefully before investing.**

## **Investing involves risk, including possible loss of principal.**

**Important Risks of the Fund BSIIX and MAMTX:** Mutual funds are actively managed and their characteristics will vary. Bond values fluctuate in price so the value of your investment can go down depending on market conditions. Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. Principal of mortgage- or asset-backed securities normally may be prepaid at any time, reducing the yield and market value of those securities. Obligations of U.S. gov't agencies are supported by varying degrees of credit but generally are not backed by the full faith and credit of the U.S. gov't. The fund may use derivatives to hedge its investments or to seek to enhance returns. Derivatives entail risks relating to liquidity, leverage and credit that may reduce returns and increase volatility. International investing involves special risks including, but not limited to currency fluctuations, illiquidity and volatility. These risks may be heightened for investments in emerging markets. Non-investment-grade debt securities (high yield/junk bonds) may be subject to greater market fluctuations, risk of default or loss of income and principal than higher-rated securities. Short selling entails special risks. If the fund makes short sales in securities that increase in value, the fund will lose value. Any loss on short positions may or may not be offset by investing short-sale proceeds in other investments.

Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. Non-investment-grade debt securities (high-yield/junk bonds) may be subject to greater market fluctuations, risk of default or loss of income and principal than higher-rated securities. There may be less information on the financial condition of municipal issuers than for public corporations. The market for municipal bonds may be less liquid than for taxable bonds. Some investors may be subject to federal or state income taxes or the Alternative Minimum Tax (AMT). Capital gains distributions, if any, are taxable.

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