

Vanguard Long-Term Investment-Grade Adm

Benchmark

 Bloomberg US Agg Bond TR
 USD

Investment Information

Investment Strategy & Objective from investment's prospectus

The investment seeks to provide a high and sustainable level of current income.

The fund invests in a variety of high-quality and, to a lesser extent, medium-quality fixed income securities, at least 80% of which will be intermediate- and long-term investment-grade securities. High-quality fixed income securities are those rated the equivalent of A3 or better; medium-quality fixed income securities are those rated the equivalent of Baa1, Baa2, or Baa3. The fund's dollar-weighted average maturity is expected to fall within a range that is five years shorter than or five years longer than that of its benchmark index.

Past name(s) : Vanguard Long-Term Corporate Bond Adm.

Portfolio Manager(s)

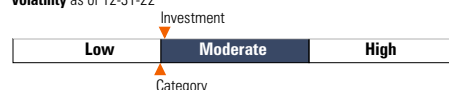
Scott St. John, CFA. Since 2014.
 Daniel Shaykevich. Since 2018.
 Samuel Martinez, CFA. Since 2018.
 Arvind Narayanan. Since 2019.

Operations and Management

Fund Inception Date 02-12-01
 Prior Class Incept Date 07-09-73
 Management Company Vanguard Group Inc
 Subadvisor —

Volatility and Risk

Volatility as of 12-31-22



In the past, this investment has shown a relatively moderate range of price fluctuations relative to other investments. This investment may experience larger or smaller price declines or price increases depending on market conditions. Some of this risk may be offset by owning other investments with different portfolio makeups or investment strategies.

Portfolio Analysis

Composition as of 10-31-22



Top 10 Holdings as of 10-31-22

	% Assets
United States Treasury Bonds	1.27
Microsoft Corporation	0.89
Goldman Sachs Group, Inc.	0.77
Wells Fargo & Company	0.74
United States Treasury Bonds	0.65
United States Treasury Bonds	0.61
Bristol-Myers Squibb Company	0.60
Microsoft Corporation	0.60
Amazon.com, Inc.	0.58
United States Treasury Bonds	0.58

Total Number of Stock Holdings	0
Total Number of Bond Holdings	1448
Annual Turnover Ratio %	24.00
Total Fund Assets (\$mil)	15,118.95

Morningstar Fixed Income Style Box™ as of 10-31-22

	High	Med	Low
Ltd	Mod	Ext	

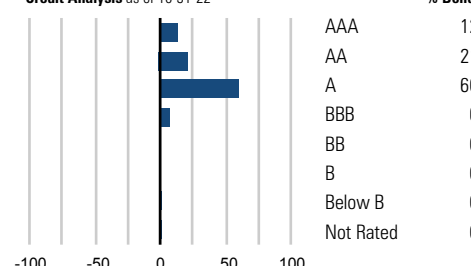
Avg Eff Duration	12.88
Avg Eff Maturity	23.00
Avg Wtd Coupon	—
Avg Wtd Price	79.84
30 Day SEC Yield	5.03

Risk Measures as of 12-31-22	Port Avg	Rel BC Aggr	Rel Cat
3 Yr Std Dev	14.26	2.44	1.07
3 Yr Beta	2.28	—	1.11
3 Yr R-squared	88.08	—	1.08

Morningstar F-I Sectors as of 10-31-22

	% Fund	% Category
Government	8.62	25.69
Corporate	79.25	46.95
Securitized	0.35	2.18
Municipal	9.61	7.26
Cash/Cash Equivalents	1.95	8.82
Other	0.23	9.11

Credit Analysis as of 10-31-22



Disclosure

Information on this page applies to the underlying investment of the separate account named in the header.

Risk Measures

R-squared reflects the percentage of a fund's movements that are explained by movements in its benchmark index, showing the degree of correlation between the fund and the benchmark.

Beta is a measure of a fund's sensitivity to market movements. A portfolio with a beta greater than 1 is more volatile than the market, and a portfolio with a beta less than 1 is less volatile than the market.

Standard deviation is a statistical measure of the volatility of the fund's returns.

Morningstar Style Box™

The Morningstar Style Box reveals a fund's investment strategy as of the date noted on this report.

For fixed-income funds, the vertical axis shows the credit quality of the long bonds owned and the horizontal axis shows interest rate sensitivity as measured by a bond's effective duration.

Vanguard Long-Term Investment-Grade Adm

Comparative Index
Bloomberg US Credit A+ Long TR

Asset category
Long-Term Inv-Grade Bond

Investment Option Performance (as of 12/31/2022)

		Comparative Index
Three Month	3.87%	4.48%
Year To Date	-25.92%	-25.62%
One Year	-25.92%	-25.62%
Three Year	-6.12%	-5.98%
Five Year	-1.54%	-1.21%
Ten Year Or Since Inception	1.61%	1.94%
Inception Date		

Investment Option Total Expenses

Total Expense is 0.59%

Since Inception - Performance since inception is based on the inception date of the oldest share class of the underlying investment.

Investment Disclosures and Principal Risks

This is a general communication for informational and educational purposes. The information is not designed, or intended, to be applicable to any person's individual circumstances. It should not be considered investment advice, nor does it constitute a recommendation that anyone engage in (or refrain from) a particular course of action. If you are seeking investment advice or recommendations, please contact your financial professional.

As a result of the application of U.S. tax law, Minnesota Life Insurance Company may receive financial benefits with respect to the establishment and operation of its separate accounts. Minnesota Life Insurance Company cannot provide a meaningful estimate of any potential tax benefit since there is no certainty from year to year what, if any, tax benefits will be received as a result of activity within a particular separate account. The investment strategy of Minnesota Life Insurance Company is not influenced by any potential financial benefits resulting from the application of U.S. tax laws with respect to the activities of its separate accounts.

The terms "investment name" and "investment option" refer to either a separate account or, in the case of the open architecture separate account, a sub account.

Securian Financial's qualified retirement plan products are offered through a group variable annuity contract issued by Minnesota Life Insurance Company.

Securian Financial is the marketing name for Securian Financial Group, Inc., and its subsidiaries. Minnesota Life Insurance Company is a subsidiary of Securian Financial Group, Inc.

Performance figures are historical; past performance does not guarantee future results. For contract investment options and other variable investments, if any, investment return and original value will fluctuate so that an investor's units, when redeemed, may be worth more or less than originally invested.

We have adjusted performance of the underlying mutual funds to reflect (a) the current expense reimbursement for the fund family, if any, and (b) current contract expense.

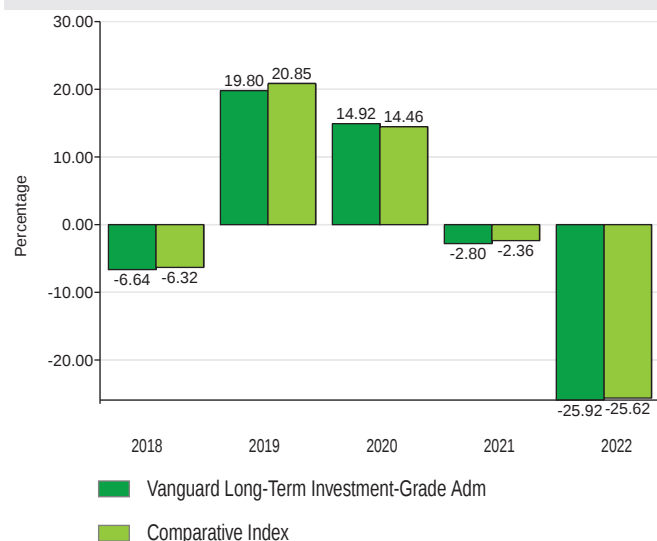
Any performance shown for a period prior to the inception date of the investment option is hypothetical and is calculated by taking the underlying fund performance and applying investment option and historical contract expenses as well as the current expense reimbursement. Returns for prior 3, 5, and 10 years are represented as average annual returns. If the share class of the underlying investment doesn't have 10 years of performance then the performance of the oldest share class is used in this calculation.

The report illustrates the performance of the separate account, however underlying mutual funds' investment advisors may have paid some of the funds' fees and expenses during these periods. These fee and expense subsidies may be terminated at any time, in which event performance may be reduced.

Total expense (actual) represents the sum of all fees withdrawn through a daily expense withdrawal. The rate displayed is the annual rate. The Total Expense is comprised of an Operating Expense, plus a Contract Asset Charge, minus any Separate Account Credits. Investment Performance is always shown net of total expense. Investment option performance changes daily. One factor that affects performance is the net operating expense of each investment option. Securian Financial may receive revenue sharing from some investment option providers for shareholder services we provide. Unlike other service providers, we pass all revenue sharing back to the end investor by reducing the total expense for the option in direct relation to the revenue sharing, including in some instances foreign tax credits, we receive. We refer to these as Separate Account Credits. Operating expenses and separate account credits are determined by the investment option provider and are subject to change at any time. Once Securian Financial is notified of a change, the applicable expense information is updated online as soon as administratively feasible. To view the most up-to-date changes to performance and expenses go online at securian.com/retirement.

Fixed income securities are subject to credit and interest rate risk and, as such, the net asset value of the fund generally will fall as interest rates rise.

Calendar Year Returns



This separate account investment option's investment objectives, risks, charges and expenses should be considered carefully before investing. Investment return and principal value will fluctuate so that an investor's units, when redeemed, may be worth more or less than originally invested.

For information on this separate account investment option's fees and expenses please review the Participant fee and investment notice (ERISA Section 404) in the Required Notices section on securian.com/retirement.

This separate account investment option is subjected to Securian Financial's comprehensive due diligence process utilizing both qualitative and quantitative criteria, with emphasis on low expenses, risk adjusted performance and solid asset managers with consistent investment processes.

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A market index is an unmanaged portfolio of securities such as stocks and bonds. An index is often used as a comparative benchmark for managed portfolios such as mutual funds. These indices are presented to help you evaluate the performance of the broad market which may represent, and provide you with an understanding of that market's historic long-term performance, and a broad indication of price movement. Individual investors cannot invest directly in an index. Past performance is not indicative of future results. For more detailed descriptions of individual benchmarks, please refer to securian.com/retirement.

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Morningstar Style Box TM: Morningstar seeks credit rating information from fund companies on a periodic basis (e.g., quarterly). In compiling credit rating information Morningstar accepts credit ratings reported by fund companies that have been issued by all Nationally Recognized Statistical Rating Organizations (NRSROs). For a list of all NRSROs, please visit <http://www.sec.gov/divisions/marketreg/ratingagency.htm>. Additionally, Morningstar accepts foreign credit ratings from widely recognized or registered rating agencies. If two rating organizations/agencies have rated a security, fund companies are to report the lower rating; if three or more organizations/agencies have rated a security, fund companies are to report the median rating, and in cases where there are more than two organization/agency ratings and a median rating does not exist, fund companies are to use the lower of the two middle ratings. PLEASE NOTE: Morningstar, Inc. is not itself an NRSRO nor does it issue a credit rating on the fund. An NRSRO or rating agency ratings can change from time-to-time.

For credit quality, Morningstar combines the credit rating information provided by the fund companies with an average default rate calculation to come up with a weighted-average credit quality. The weighted-average credit quality is currently a letter that roughly corresponds to the scale used by a leading NRSRO. Bond funds are assigned a style box placement of "low", "medium", or "high" based on their average credit quality. Funds with a low credit quality are those whose weighted-average credit quality is determined to be less than "BBB-"; medium are those less than "AA-", but greater or equal to "BBB-"; and high are those with a weighted-average credit quality of "AA-" or higher. When classifying a bond portfolio, Morningstar first maps the NRSRO credit ratings of the underlying holdings to their respective default rates (as determined by Morningstar's analysis of actual historical default rates). Morningstar then averages these default rates to determine the average default rate for the entire bond fund. Finally, Morningstar maps this average default rate to its corresponding credit rating along a convex curve.

For interest-rate sensitivity, Morningstar obtains from fund companies the average effective duration. Generally, Morningstar classifies a fixed-income fund's interest-rate sensitivity based on the effective duration of the Morningstar Core Bond Index (MCBI), which is currently three years. The classification of Limited will be assigned to those funds whose average effective duration is between 25% to 75% of MCBI's average effective duration; funds whose average effective duration is between 75% to 125% of the MCBI will be classified as Moderate; and those that are at 125% or greater of the average effective duration of the MCBI will be classified as Extensive. For municipal bond funds, Morningstar also obtains from fund companies the average effective duration. In these cases static breakpoints are utilized. These breakpoints are as follows: (i) Limited: 4.5 years or less; (ii) Moderate: more than 4.5 years but less than 7 years; and (iii) Extensive: more than 7 years. In addition, for non-US taxable and non-US domiciled fixed income funds static duration breakpoints are used: (i) Limited: less than or equal to 3.5 years; (ii) Moderate: greater than 3.5 and less than equal to 6 years; (iii) Extensive: greater than 6 years.

Credit-quality ratings for each issue are obtained from Moody's Investors Services, Fitch Ratings, and Standard & Poor's.

BBgBarc US Agg Bond TR USD: A market-weighted index that covers the U.S. investment-grade fixed rate bond market. The index includes government and corporate securities, agency mortgage pass-through securities, and asset-backed securities.