Morningstar Fee Level Methodology

Contents

Introduction

The Morningstar Fee Level was developed to help investors compare an investment vehicle's relative level of fees with those of similar investment vehicles. This document provides the methodology for fee level ranks for funds and variable annuity subaccounts in Morningstar's database that are available to end investors in the United States. For this methodology as well as the Morningstar Rating, and most other rankings and aggregates, *funds* are defined as open-end investment entities registered under the Securities Act of 1933; open-end and exchange-traded funds that are Registered Investment Companies under the Investment Company Act of 1940; as well as certain trusts and unit investment trusts that functionally provide investors with equivalent investment protections and dealing terms. Separate methodology documents exist for investments not included herein.

There are four Morningstar Fee Levels:
► Broad
► Distribution
► Variable Products
► Insurance Funds

Each of the four fee levels places funds in a category grouping. Morningstar Fee Level–Broad ranks mutual funds using only the category groupings as comparison groups to determine the rank of each fund. Morningstar Fee Level–Distribution, however, further combines mutual funds with similar distribution channels and expense structures to create smaller comparison groups within each category grouping. Similarly, Morningstar Fee Level–Variable combines subaccounts into smaller comparison groups within the category grouping based on similar distribution channels and expense structures. Morningstar Fee Level--Insurance Funds uses the approach of the broad fee level but applies a different category grouping based upon the investments available to that market.

Category Groupings

1. Aggressive Allocation
2. Bank Loan
3. Bear Market
4. Commodities
   Commodities Broad Basket + Commodities Focused

5. Conservative Allocation
6. Convertibles
7. Corporate Bond
8. Currency
   Single Currency + Multicurrency

9. Diversified Asia/Japan
   Diversified Pacific/Asia + Japan Stock

10. Emerging-Markets Bond
11. Emerging-Markets Stock
    China Region + Diversified Emerging Markets + India Equity + Latin America Stock + Pacific/Asia ex-Japan Stock

12. Europe Stock
13. Equity Alternative
    Long-Short Equity + Market Neutral + Options-Based

14. Foreign Large Cap
    Foreign Large Value + Foreign Large Blend + Foreign Large Growth

15. Foreign Small/Mid-Cap
    Foreign Small/Mid-Value + Foreign Small/Mid-Blend + Foreign Small/Mid-Growth

16. Government
    Long Government + Intermediate Government + Short Government

17. High-Yield Bond
18. High-Yield Municipal
19. Inflation-Protected
20. Intermediate-Term Bond
    Intermediate Core Bond + Intermediate Core-Plus Bond

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21. Large Cap

    Large Value + Large Blend + Large Growth

22. Long-Term Bond
23. Managed Futures
24. Mid-Cap

    Mid-Value + Mid-Blend + Mid-Growth

25. Miscellaneous Region
26. Moderate Allocation
27. Moderately Aggressive Allocation
28. Moderately Conservative Allocation
29. Multialternative
30. Emerging Markets
31. Multisector Bond
32. Municipal Intermediate

    Municipal California Intermediate + Municipal National Intermediate + Municipal New York Intermediate + Municipal Single State Intermediate

33. Municipal Long

    Municipal California Long + Municipal National Long + Municipal New York Long + Municipal Single State Long

34. Municipal Other

    Municipal Massachusetts + Municipal Minnesota + Municipal New Jersey + Municipal Ohio + Municipal Pennsylvania

35. Municipal Short

    Municipal National Short + Municipal Single State Short

36. Nontraditional Bond
37. Preferred Stock
38. Retirement Income
39. Short-Term Bond
40. Small Cap

    Small Value + Small Blend + Small Growth

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41. Specialty

   Communications + Consumer Cyclical + Consumer Defensive + Energy Limited Partnership + Equity Energy + Equity Precious Metals + Financials + Global Real Estate + Health + Industrials + Miscellaneous Sector + Natural Resources + Real Estate + Technology + Utilities

42. Tactical Allocation
43. Target Maturity

   Target Maturity + Muni Target Maturity

44. Target Retirement 2000–2010
45. Target Retirement 2011–2015
46. Target Retirement 2016–2020
47. Target Retirement 2021–2025
48. Target Retirement 2026–2030
49. Target Retirement 2031–2035
50. Target Retirement 2036–2040
51. Target Retirement 2041–2045
52. Target Retirement 2046–2050
53. Target Retirement 2051–2060
54. Target Retirement 2061+
55. Trading

   Trading-Inverse Commodities + Trading-Inverse Debt + Trading-Inverse Equity + Trading-Leveraged Commodities + Trading-Leveraged Debt + Trading-Leveraged Equity + Trading-Miscellaneous

56. Ultrashort Bond
57. Volatility
58. World Allocation
59. World Bond

   World Bond + World Bond–USD Hedged

60. World Stock

   World Large Stock + World Small/Mid Stock

Morningstar Fee Level–Broad

Methodology
Fund share classes are first grouped together into category groupings.

Ranking
Within each comparison group, a fund share class' most recent prospectus adjusted expense ratio will be ranked against its peers. Each share class is assigned a quintile score (1 to 5) and a corresponding Fee Grade/Label (High, +Avg [Above Average], Avg [Average], −Avg [Below Average], Low).

Morningstar uses the following formula to determine the percentile rank of an expense ratio in a series. Percentile ranks range from 1 (best) to 100 (worse) with all intermediate values spread evenly over that range.

All observations are ranked in the desired order (ascending). Percentile ranks are assigned as follows:

$$\text{PctRank} = \begin{cases} i & \text{for } i = 1 \\ \text{FLOOR}[99*(i-1)/(n-1)+1] & \text{for } i > 1 \end{cases}$$

Where:

N   =   Total number of observations

i   =   Absolute rank of each observation

Floor   =   A function that rounds down to the next integer (for example, 89.83 rounds down to 89)

Morningstar does not require a minimum number of items in order to percentile-rank a set of data. For example, if there are only three fund share classes in a distribution class for a comparison group, we will percentile-rank those three (1, 50, and 100).

Exhibit 1 Percentile Ranks Are Mapped Into Quintiles

Range	Quintile	Word Label
0 < Percentile Rank <= 20	1	Low
20 < Percentile Rank <= 40	2	Below Average or − Avg
40 < Percentile Rank <= 60	3	Average or Avg
60 < Percentile Rank <= 80	4	Above Average or + Avg
80 < Percentile Rank <= 100	5	High

Source: Morningstar.

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Morningstar Fee Level–Distribution

Methodology
Fund share classes are first grouped together into category groupings. The methodology
applies to all U.S. open-end funds in Morningstar's database and excludes the Morningstar load-waived
share classes.

Distribution Class Criteria
Comparison groups are further determined by the criteria listed below. This allows for an "apples to
apples" comparison of fund share classes with similar distribution channels and expense structures.

Data Points Required (Most Recent):
Maximum front load
Maximum deferred load
12b-1 fee
Minimum initial purchase
Share class type

Front Load: Front load of greater than 1.00%; 12b-1 fee less than or equal to 0.50%; minimum initial
purchase less than $100,000; share class type does not equal Retirement.

Deferred Load: Maximum deferred load greater than 1.00%; front load equal to 0%; minimum initial
purchase less than $100,000; share class type does not equal Retirement.

Level Load: Deferred load less than or equal to 1.00%; front load equal to 0%; 12b-1 fee greater than
0.25%; minimum initial purchase less than $100,000; share class type does not equal Retirement.

No Load: Minimum initial purchase less than $100,000; share type does not equal Retirement or
Institutional; 12b-1 fee less than or equal to 0.25%; front load equal to 0%; deferred load equal to 0%.

Institutional: Share class type equals Institutional or minimum initial purchase is greater or equal to
$100,000; share class type does not equal Retirement.

Retirement, Small: Share class type equals Retirement; 12b-1 fee is greater than 0.50%.

Retirement, Medium: Share class type equals Retirement; 12b-1 fee is greater than 0.00% and less than
or equal to 0.50%.

Retirement, Large: Share class type equals Retirement; 12b-1 fee is 0.00%.

Example distribution class comparison groups include:

1. Bank Loan – Front Load
2. Bank Loan – Deferred Load
3. Bank Loan – Level Load
4. Bank Loan – No Load
5. Bank Loan – Institutional
6. Bank Loan – Retirement, Small
7. Bank Loan – Retirement, Medium
8. Bank Loan – Retirement, Large
9. Bear Market – Front Load
10. Bear Market – Deferred Load
11. Bear Market – Level Load
12. Bear Market – No Load
13. Bear Market – Institutional
14. Bear Market – Retirement, Small
15. Bear Market – Retirement, Medium
16. Bear Market – Retirement, Large

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Morningstar Fee Level–Variable Products

Methodology

Subaccounts are first grouped together into category groupings. The methodology applies to all U.S. variable annuity subaccounts and U.S. group variable annuity subaccounts in Morningstar's databases. The methodology does not apply to variable life and variable universal life subaccounts, primarily because policy-level mortality and expense charges are not uniformly assessed as asset-based fees.

Distribution Class Criteria

Comparison groups are further determined by the criteria listed below. This allows for an "apples to apples" comparison of subaccounts with similar distribution channels and expense structures.

Policy Data Points Required (Most Recent):

Mortality and Expense Risk Charge (M&E)
Administrative Charge
Distribution Charge
Share class type

Subaccount Expense Ratio

Morningstar estimates the subaccount expense ratio from the aggregation of the underlying fund share class' prospectus adjusted expense ratio and the asset-based fees in the policy, including: M&E, administrative charge, and distribution charge.

Class A: Front-load structure with no contingent deferred sales charges.

Class B: Contingent deferred sales charge schedule greater than three years, no front load.

Class C: Contingent deferred sales charge schedule of one year or less, no front load.

Class I (No Load): No front load or contingent deferred sales charge and M&E less than 1%.

Class L: Contingent deferred sales charge, three- to four-year level or declining schedule.

Class O: Front load spread out over x years and contingent deferred sales charge, both determined by a breakpoint-based reducing schedule.

Class X: Contingent deferred sales charge, no front load, and contractual (that is, nonoptional) up-front premium bonus.

Group VA: Subaccounts in policies solely available to an employer as a funding vehicle for a qualified or nonqualified deferred compensation plan, or to individuals who purchase the policies through a qualified group plan, such as a 403(b).

Example distribution class comparison groups include:

1. Bank Loan – Class A
2. Bank Loan – Class B
3. Bank Loan – Class C
4. Bank Loan – Class I
5. Bank Loan – Class L
6. Bank Loan – Class O
7. Bank Loan – Class X
8. Bank Loan – Group VA
9. Bear Market – Class A
10. Bear Market – Class B
11. Bear Market – Class C
12. Bear Market – Class I
13. Bear Market – Class L
14. Bear Market – Class O
15. Bear Market – Class X
16. Bear Market – Group VA

Ranking

Within each comparison group, a subaccount's most recent adjusted expense ratio will be ranked against its peers. Each subaccount is assigned a quintile score (1 to 5) and corresponding Fee Grade/Label (High, +Avg [Above Average], Avg [Average], −Avg [Below Average], Low).

Morningstar uses the following formula to determine the percentile rank of an expense ratio in a series. Percentile ranks range from 1 (best) to 100 (worse) with all intermediate values spread evenly over that range.

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All observations are ranked in the desired order (ascending). Percentile ranks are assigned as follows:

PctRank = i   for i = 1

$\quad\quad\quad\quad\quad$ FLOOR[99*(i-1)/(n-1)+1]   for i > 1

Where:

n   =   Total number of observations

i   =   Absolute rank of each observation

Floor   =   A function that rounds down to the next integer (for example, 89.83 rounds down to 89)

Morningstar does not require a minimum number of items in order to percentile-rank a set of data. For example, if there are only three fund share classes in a distribution class for a comparison group, we will percentile-rank those three (1, 50, and 100).

Exhibit 2 Percentile Ranks Are Mapped Into Quintiles

Range	Quintile	Word Label
0 < Percentile Rank <= 20	1	Low
20 < Percentile Rank <= 40	2	Below Average or – Average
40 < Percentile Rank <= 60	3	Average or Avg
60 < Percentile Rank <= 80	4	Above Average or + Average
80 < Percentile Rank <= 100	5	High

Source: Morningstar.

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Insurance Funds

Methodology

Insurance fund share classes are assiged to separate category groups applicable to this market. This is a broad ranking without application of distribution groups. The category groupings differ slightly from the fund category groupings owing to differences in the market for insurance funds.

Category Groupings

1. Insurance Fund Aggressive Allocation
2. Insurance Fund Alternative

    Long-Short Equity + Managed Futures + Market Neutral + Multialternative + Multicurrency + Single Currency + Volatility + Nontraditional Bond

3. Insurance Fund Bear Market
4. Insurance Fund Commodities

    Commodities Broad Basket + Commodities Focused

5. Insurance Fund Conservative Allocation
6. Insurance Fund Corporate Bond
7. Insurance Fund Emerging Markets Bond
8. Insurance Fund Emerging Markets Stock

    China Region + Diversified Emerging Mkts + India Equity + Latin America Stock + Pacific /Asia ex-Japan Stock

9. Insurance Fund Equity Alternative

    Long-Short Equity + Market Neutral + Options-Based

10. Insurance Fund Foreign Developed Large Cap

    Diversified Pacific/Asia + Europe Stock + Foreign Large Blend + Foreign Large Growth + Foreign Large Value + Japan Stock + Miscellaneous Region

11. Insurance Fund Foreign Small/Mid-Cap

    Foreign Small/Mid-Value + Foreign Small/Mid-Blend + Foreign Small/Mid-Growth

12. Insurance Fund Government

    Long Government + Intermediate Government + Short Government

13. Insurance Fund High-Yield

    High-Yield Bond + High-Yield Muni + Bank Loan

14. Insurance Fund Inflation Protected

15. Insurance Fund Intermediate-Term Bond
    Intermediate Core Bond + Intermediate Core-Plus Bond

16. Insurance Fund Large Cap
    Large Value + Large Blend + Large Growth

17. Insurance Fund Long-Term Bond + Preferred Stock
    Long-Term Bond + Preferred Stock

18. Insurance Fund Managed Futures
19. Insurance Fund Moderately Aggressive Allocation
20. Insurance Fund Moderately Conservative Allocation
21. Insurance Fund Mid-Cap
    Mid-Value + Mid-Blend + Mid-Growth

22. Insurance Fund Moderate Allocation + Convertibles
    Moderate Allocation + Convertibles

23. Insurance Fund Multialternative
24. Insurance Fund Multisector Bond
25. Insurance Fund Municipal Intermediate
    *Municipal California Intermediate + Municipal National Intermediate +
    Municipal New York Intermediate + Municipal Single State Intermediate*

26. Insurance Fund Municipal Long
    *Municipal California Long + Municipal National Long +
    Municipal New York Long + Municipal Single State Long*

27. Insurance Fund Municipal Other
    *Municipal Massachusetts + Municipal Minnesota + Municipal New Jersey + Municipal Ohio +
    Municipal Pennsylvania*

28. Insurance Fund Municipal Short
    Municipal National Short + Municipal Single State Short

29. Insurance Fund Short-Term Bond
30. Insurance Fund Small Cap
    Small Value + Small Blend + Small Growth

31. Insurance Fund Specialty

*Communications + Consumer Cyclical + Consumer Defensive + Equity Energy +
Energy Limited Partnership + Equity Precious Metals + Financials + Global Real Estate + Health +
Industrials + Miscellaneous Sector + Natural Resources + Real Estate + Technology + Utilities +
Target Maturity + Muni Target Maturity*

32. Insurance Fund Tactical Allocation

33. Insurance Fund Target Retirement

*Retirement Income + Target Retirement 2000–2010 + Target Retirement 2011–2015 +
Target Retirement 2016–2020 + Target Retirement 2020–2025 + Target Retirement 2026–2030 +
Target Retirement 2031–2035 + Target Retirement 2036–2040 + Target Retirement 2041–2045 +
Target Retirement 2046–2050 + Target Retirement 2051+*

34. Insurance Fund Trading

*Trading-Inverse Commodities + Trading-Inverse Debt + Trading-Inverse Equity +
Trading-Leveraged Commodities + Trading-Leveraged Debt + Trading-Leveraged Equity +
Trading-Miscellaneous*

35. Insurance Fund Ultrashort Bond

36. Insurance Fund World Allocation

37. Insurance Fund World Bond

World Bond + World Bond–USD Hedged

38. Insurance Fund World Stock

World Large Stock + World Small/Mid Stock