



# Cartesio

## The Right Incentives

Cartesio Funds

March 2004 - December 2024

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# Cartesio Inversiones SGIIC

## About us

Cartesio is a fund management company registered and supervised by the Spanish Securities Exchange Commission (CNMV).

Two strategies:

Cartesio X / Cartesio Income - Capital Protection

Cartesio Y / Cartesio Equity - Risk adjusted Equities

€838m AUM as of 31/12/2024.

## Differentiating Factors

The key factors that have characterised Cartesio since inception are:

- 1 Alignment of interest
- 2 Capital protection mindset
- 3 Active management
- 4 Two strategies
- 5 Low fees
- 6 Transparency

## A Proven Investment Process

Cartesio offers a balanced approach between asset allocation and security selection to deliver superior risk-adjusted returns.

## Team

A team of seven investment professionals, led by the founding partners, actively manages the funds.

## The funds

Luxembourg

### Cartesio *Equity*

Risk Adjusted Equities



MORNINGSTAR	★★★★★	3 years
MORNINGSTAR	★★★	5 years
MORNINGSTAR	★★★	10 years*
MORNINGSTAR	★★★	Overall

\*Ratings correspond to Cartesio Y and Cartesio X

- 5 Lipper Leader Total Return
- 5 Lipper Leader Consistent Return
- 1 Lipper Leader Preservation
- 5 Lipper Leader Expense

### Cartesio *Income*

Capital Protection



MORNINGSTAR	★★★★★	3 years
MORNINGSTAR	★★★★★	5 years
MORNINGSTAR	★★★★★	10 years*
MORNINGSTAR	★★★★★	Overall

- 4 Lipper Leader Total Return
- 4 Lipper Leader Consistent Return
- 5 Lipper Leader Preservation
- 5 Lipper Leader Expense

Spain

### Cartesio *Y*

Risk Adjusted Equities

### Cartesio *X*

Capital Protection

## Awards

Track-record recognised by several prestigious awards. In 2023, Cartesio won the best EUR allocation fund award in Luxembourg and Spain with Cartesio Equity R (Cartesio Y) whereas Cartesio X was a finalist in Spain

<p>BEST EUR ALLOCATION FUND OF THE YEAR 2023 CARTESIO EQUITY "R"</p>	<p>PAN-EUROPEAN FUND MANAGER OF THE YEAR 2018 MULTI-ASSET AND ALTERNATIVES</p>
<p>SPANISH FUND MANAGER OF THE YEAR 2015</p>	<p>BALANCED EURO FUND OF THE YEAR 2014 CARTESIO Y</p>

# Differentiating Factors



A distinctive approach to investment management

1

## ALIGNMENT OF INTEREST

All the financial net worth of the managers can only be invested in the Cartesio funds. This commitment is reflected in the Code of Conduct registered with the CNMV. No change in partners since inception.

2

## CAPITAL PROTECTION MINDSET

Willingness to forego potential returns in order to protect capital. Investment decisions based on a long-term fundamental approach vs. speculative short-term catalysts.

3

## ACTIVE MANAGEMENT

High flexibility in asset allocation. Concentrated equity portfolio. Risk adjusted investment objective. Long bias mindset but seeking alpha through concentrated portfolio. Cash is an asset to protect capital and invest.



4

## TWO STRATEGIES

Simplifies the asset allocation process for the client. Concentrates fund managers' efforts. Clear and consistent message to our clients.

5

## LOW FEES

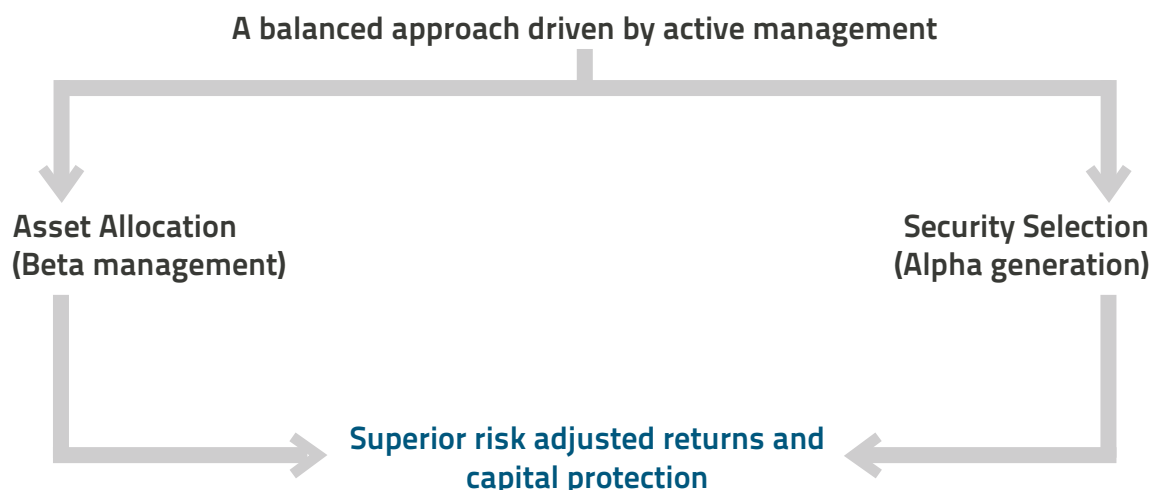
Fair manager Compensation with and without performance. No subscription or redemption fee. High water-mark ensures fair performance fee, only resettable after three consecutive years.

6

## TRANSPARENCY

Monthly and quarterly public reports with full disclosure regarding positions and asset allocation. Daily Liquidity.

# Investment Process



## Philosophy

- Only four asset classes: equities, government bonds, corporate debt and cash.
- Contrarian / Value. Search for investment opportunities outside the consensus.
- Screening of opportunities across the capital structure.
- Gradualist approach to portfolio construction. No trading.
- Long term, low rotation.
- Limited FX exposure.

## Decision making

- Fundamental analysis. No automatic decisions based on technical analysis or quantitative models.
- Joint decision making by fund managers. Majority voting respected, no deadlock.
- Generalists. No sector or asset specialisation.
- Same incentives and objectives.
- No stop loss per position.

## Equities

- Limited number of stocks in portfolio (30 - 40).
- Prefer value over growth. "Price" is the key factor.
- Quality of the business is an important factor.
- Prefer businesses easy to understand and value.
- Fundamental valuation: multiples, cash flow generation, value creation, DCF.
- Focused on mid to large caps.
- Avoid highly leveraged companies.

## Bonds

- Diversification.
- Duration risk taken only at attractive nominal and real rates.
- Preference for liquid/benchmark issues of listed companies.
- Preference for issuers with "dividend protection".
- Prefer low credit risk in normal circumstances.
- Duration risk managed with bund futures.

# The Funds

## Overview of the funds

SPAIN

Cartesio *Y*

Cartesio *X*

<b>Type of client</b>	Institutional & retail	Institutional & retail
<b>Management fee</b>	0.90%	0.65%
<b>Performance fee</b>	7.5%	7.5%
<b>ISIN</b>	ES0182527038	ES0116567035
<b>Bloomberg code</b>	MSCYACC SM	MSCXVDI SM

LUXEMBOURG

Cartesio *Equity*

Cartesio *Income*

Type of shares	Clase I	Clase R	Clase Z (clean)	Clase I	Clase R	Clase Z (clean)
<b>Type of client</b>	Institutional	Retail (discretionary mandate)	Institutional & retail (advisory mandate*)	Institutional	Retail (discretionary mandate)	Institutional & retail (advisory mandate*)
<b>Management fee</b>	1.5%	1.5%	0.90%	0.95%	0.95%	0.65%
<b>Performance fee</b>	—	—	7.5%	—	—	7.5%
<b>ISIN</b>	LU1966822444	LU1966822527	LU1966822790	LU1966822873	LU1966822956	LU1966823095
<b>Bloomberg code</b>	CARTEQI LX	CARTEQR LX	CARTEQZ LX	CARTINI LX	CARTINR LX	CARTINZ LX

*the "Z" category is only available to (i) investors who have entered into a separate agreement with investment services providers which, according to regulatory requirements, are not allowed to accept and keep trail commissions and (ii) institutional investors exclusively investing on their own account.*

Cartesio *γ* / Cartesio *Equity*

Risk Adjusted Equities



### Investment Objective

- Long term capital appreciation in real terms.
- Higher risk adjusted returns (Sharpe Ratio) than European equities (MSCI Pan Euro Index).
- Willingness to forego potential returns in order to protect capital.

### Asset Allocation

- Total flexibility in equity exposure (0% - 100%) depending on market view and risk. Equities and cash are the only assets.
- Invests mainly in European equities. Some exposure to non european equities allowed by prospectus.

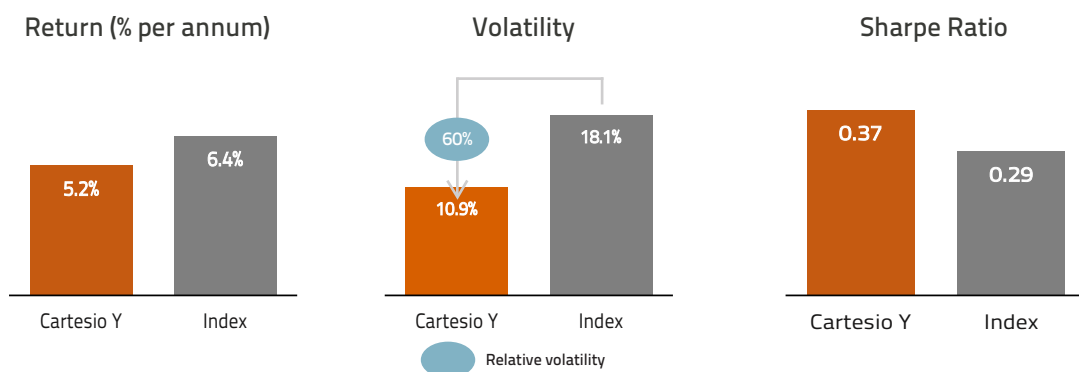
### Risk

- Since inception volatility (10.9%) has been 60.0% of that of European equities.

### Fees

- Management : 0.90% + 7.5% of annual positive performance (watermark: five years to recover losses before performance fee can be applied).
- Custody: 0.045-0.055%.

### Risk adjusted returns since inception 31/03/2004



### General Information

**Assets:**  
209m €

**Inception Date**  
31/03/2004

**Fundholders:**  
1463

**ISIN**  
ES0182527038

**Bloomberg**  
MSCYACC SM

**Auditor**  
Deloitte

**Administrator & Custodian**  
BNP Paribas

### Ratings

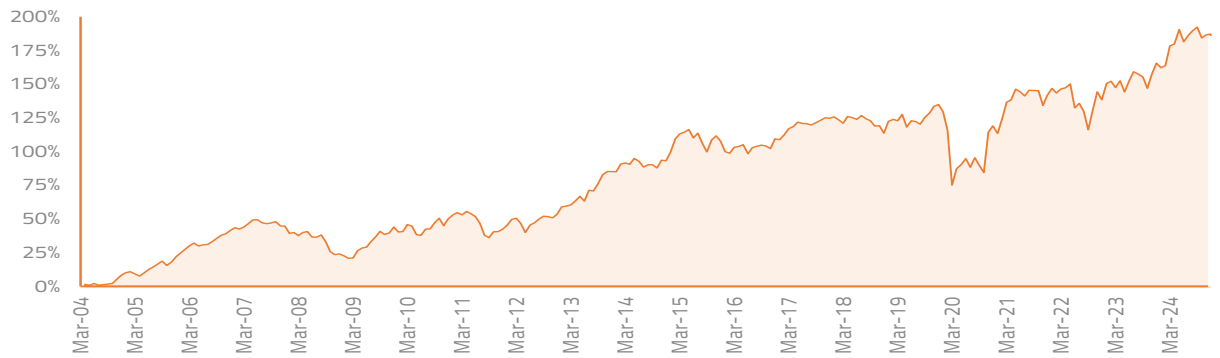


MORNINGSTAR ★★★★★ 3 years  
 MORNINGSTAR ★★★ 5 years  
 MORNINGSTAR ★★★ 10 years  
 MORNINGSTAR ★★★ Overall

- 5 Lipper Leader Total Return
- 5 Lipper Leader Consistent Return
- 1 Lipper Leader Preservation
- 5 Lipper Leader Expense

## 1 Performance

Since inception (31st March 2004) the fund has returned 187.2% (5.2% p.a.)

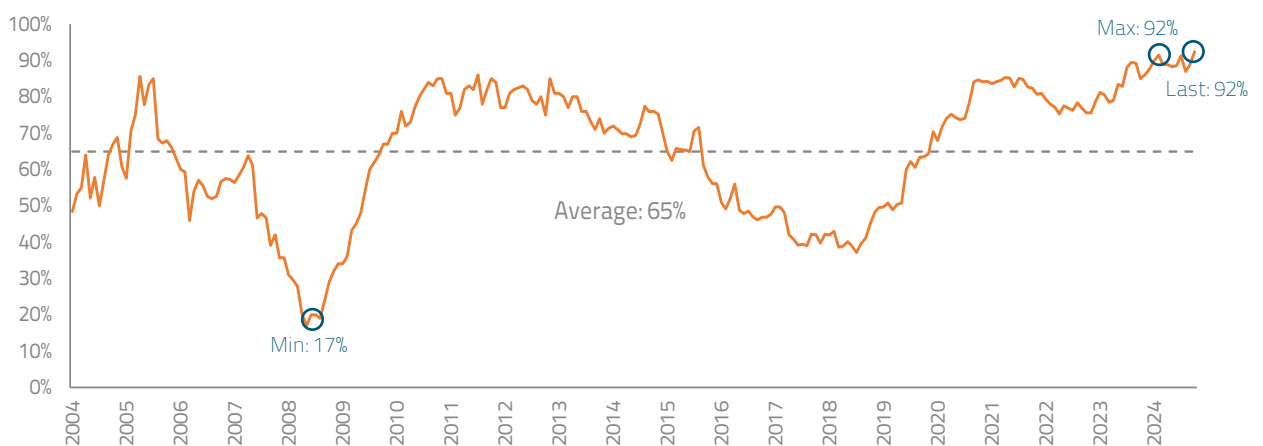


## 2 Monthly Returns

### EVOLUTION - RETURN / RISK

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2004				1.6%	(0.7%)	1.3%	(1.2%)	0.5%	0.3%	0.5%	3.0%	3.0%	<b>8.5%</b>
2005	1.6%	0.6%	(1.4%)	(1.4%)	2.1%	2.4%	1.6%	2.0%	1.8%	(2.7%)	2.2%	3.2%	<b>12.4%</b>
2006	2.3%	2.2%	2.2%	1.5%	(1.6%)	0.7%	0.2%	1.7%	1.7%	1.8%	0.7%	1.8%	<b>16.1%</b>
2007	1.3%	(0.7%)	1.2%	1.8%	1.7%	0.1%	(1.5%)	(0.5%)	0.4%	0.6%	(2.2%)	(0.1%)	<b>2.2%</b>
2008	(3.7%)	0.5%	(1.7%)	1.7%	0.5%	(2.8%)	(0.1%)	1.2%	(3.6%)	(5.5%)	(1.8%)	0.4%	<b>(14.2%)</b>
2009	(1.0%)	(1.6%)	0.2%	4.5%	1.5%	0.5%	3.3%	2.4%	3.1%	(1.6%)	0.9%	3.0%	<b>16.0%</b>
2010	(2.5%)	0.2%	3.8%	(0.9%)	(4.3%)	(0.4%)	3.4%	0.1%	3.1%	2.4%	(3.7%)	3.5%	<b>4.3%</b>
2011	1.8%	1.2%	(1.1%)	1.6%	(1.0%)	(1.4%)	(3.4%)	(5.9%)	(1.4%)	3.2%	0.1%	1.3%	<b>(5.0%)</b>
2012	2.1%	2.9%	0.5%	(2.5%)	(4.6%)	3.9%	1.2%	1.9%	1.4%	(0.3%)	(0.5%)	1.8%	<b>7.8%</b>
2013	3.5%	0.4%	0.5%	1.9%	2.0%	(2.0%)	4.9%	(0.2%)	3.0%	3.9%	1.2%	0.0%	<b>20.5%</b>
2014	(0.1%)	3.1%	0.4%	(0.5%)	2.3%	(1.2%)	(2.1%)	0.9%	(0.1%)	(1.2%)	3.1%	(0.2%)	<b>4.4%</b>
2015	3.2%	5.0%	1.8%	0.6%	0.9%	(2.9%)	1.7%	(3.5%)	(3.1%)	4.4%	1.5%	(1.9%)	<b>7.4%</b>
2016	(3.7%)	(0.6%)	2.2%	0.3%	0.7%	(3.3%)	2.2%	0.5%	0.4%	(0.3%)	(0.9%)	3.6%	<b>0.9%</b>
2017	(0.3%)	1.8%	2.1%	0.7%	1.5%	(0.4%)	(0.1%)	(0.5%)	0.8%	0.8%	0.9%	(0.2%)	<b>7.2%</b>
2018	0.5%	(1.0%)	(1.1%)	2.3%	(0.4%)	(0.6%)	1.3%	(1.0%)	(0.6%)	(1.8%)	0.2%	(2.5%)	<b>(4.9%)</b>
2019	4.1%	0.7%	(0.5%)	2.1%	(4.1%)	2.2%	(0.3%)	(0.9%)	2.2%	1.5%	2.2%	0.6%	<b>10.0%</b>
2020	(2.2%)	(6.0%)	(18.8%)	6.9%	1.6%	2.4%	(3.3%)	3.8%	(2.9%)	(2.8%)	16.2%	2.2%	<b>(6.7%)</b>
2021	(2.5%)	5.0%	5.5%	0.8%	3.3%	(0.9%)	(1.2%)	1.7%	(0.1%)	(0.1%)	(4.5%)	3.3%	<b>10.5%</b>
2022	2.0%	(1.4%)	1.2%	0.3%	1.2%	(7.1%)	1.4%	(2.5%)	(5.9%)	6.8%	5.8%	(2.4%)	<b>(1.4%)</b>
2023	5.0%	0.7%	(1.8%)	2.0%	(3.2%)	3.3%	2.7%	(0.7%)	(0.8%)	(3.3%)	4.3%	3.1%	<b>11.3%</b>
2024	(1.3%)	0.7%	5.5%	0.4%	3.9%	(3.1%)	1.6%	1.2%	0.9%	(2.7%)	0.8%	0.2%	<b>8.2%</b>

## 3 Equity Exposure (%)



## 4 Quarterly Risk Adjusted Returns

Since inception (31st March 2004) the fund has returned 187.2% (5.2% p.a.) with a volatility of 10.9%. Sharpe ratio since inception 0.37 (MSCI Pan Euro: 0.29).

	Returns		Volatility		Relative Volatility vs Index	M2*
	Fund	Index*	Fund	Index*		
<b>2004 (since 31/3/04)</b>	<b>8.5%</b>	<b>8.1%</b>	<b>4.6%</b>	<b>11.1%</b>	<b>41.2%</b>	<b>18.4%</b>
<b>2005</b>	<b>12.4%</b>	<b>26.2%</b>	<b>6.0%</b>	<b>9.5%</b>	<b>63.1%</b>	<b>18.4%</b>
<b>2006</b>	<b>16.1%</b>	<b>19.2%</b>	<b>5.3%</b>	<b>12.7%</b>	<b>41.9%</b>	<b>34.6%</b>
<b>2007</b>	<b>2.2%</b>	<b>4.5%</b>	<b>6.9%</b>	<b>15.7%</b>	<b>43.7%</b>	<b>-0.2%</b>
<b>2008</b>	<b>-14.2%</b>	<b>-42.4%</b>	<b>13.1%</b>	<b>37.3%</b>	<b>35.0%</b>	<b>-49.0%</b>
<b>2009</b>	<b>16.0%</b>	<b>31.0%</b>	<b>8.2%</b>	<b>24.4%</b>	<b>33.7%</b>	<b>45.0%</b>
<b>2010</b>	<b>4.3%</b>	<b>10.1%</b>	<b>10.8%</b>	<b>18.7%</b>	<b>57.5%</b>	<b>7.0%</b>
<b>2011</b>	<b>-5.1%</b>	<b>-6.6%</b>	<b>16.6%</b>	<b>22.2%</b>	<b>74.9%</b>	<b>-7.3%</b>
<b>2012</b>	<b>7.8%</b>	<b>17.3%</b>	<b>11.7%</b>	<b>14.7%</b>	<b>79.7%</b>	<b>9.4%</b>
<b>2013</b>	<b>20.6%</b>	<b>19.6%</b>	<b>8.4%</b>	<b>12.2%</b>	<b>69.2%</b>	<b>29.4%</b>
<b>2014</b>	<b>4.4%</b>	<b>7.0%</b>	<b>9.6%</b>	<b>13.4%</b>	<b>71.3%</b>	<b>6.0%</b>
<b>2015</b>	<b>7.4%</b>	<b>7.3%</b>	<b>10.9%</b>	<b>20.7%</b>	<b>52.9%</b>	<b>14.0%</b>
<b>2016</b>	<b>0.9%</b>	<b>3.6%</b>	<b>10.5%</b>	<b>19.8%</b>	<b>53.2%</b>	<b>1.9%</b>
<b>2017</b>	<b>7.2%</b>	<b>9.8%</b>	<b>3.6%</b>	<b>8.5%</b>	<b>42.5%</b>	<b>17.6%</b>
<b>2018</b>	<b>-4.9%</b>	<b>-9.4%</b>	<b>5.1%</b>	<b>12.5%</b>	<b>40.7%</b>	<b>-11.4%</b>
<b>2019</b>	<b>10.0%</b>	<b>25.8%</b>	<b>6.9%</b>	<b>11.3%</b>	<b>61.3%</b>	<b>16.4%</b>
<b>2020</b>	<b>-6.7%</b>	<b>-4.6%</b>	<b>23.1%</b>	<b>28.3%</b>	<b>81.6%</b>	<b>-8.1%</b>
<b>2021</b>	<b>10.5%</b>	<b>26.8%</b>	<b>9.9%</b>	<b>12.5%</b>	<b>79.0%</b>	<b>13.4%</b>
Q1	8.0%	8.8%	10.1%	11.8%	85.6%	9.4%
Q2	3.2%	6.7%	7.8%	11.3%	68.5%	4.8%
Q3	0.5%	1.0%	9.9%	12.6%	78.7%	0.6%
Q4	-1.4%	8.1%	10.4%	14.3%	72.5%	-1.8%
<b>2022</b>	<b>-1.4%</b>	<b>-6.6%</b>	<b>14.4%</b>	<b>18.2%</b>	<b>79.1%</b>	<b>-1.7%</b>
Q1	1.9%	-4.1%	17.8%	23.2%	77.0%	2.5%
Q2	-5.7%	-7.7%	13.4%	18.6%	72.2%	-7.8%
Q3	-6.9%	-3.4%	14.5%	15.9%	91.2%	-7.6%
Q4	10.3%	9.3%	11.6%	14.7%	78.6%	13.0%
<b>2023</b>	<b>11.3%</b>	<b>15.8%</b>	<b>9.4%</b>	<b>11.4%</b>	<b>82.5%</b>	<b>13.1%</b>
Q1	3.8%	8.6%	11.4%	14.2%	80.4%	4.6%
Q2	1.9%	2.3%	8.8%	9.4%	93.1%	2.0%
Q3	1.2%	-2.1%	8.3%	11.1%	74.7%	1.4%
Q4	4.0%	6.4%	9.3%	10.1%	91.5%	4.2%
<b>2024</b>	<b>8.2%</b>	<b>8.6%</b>	<b>9.0%</b>	<b>10.3%</b>	<b>87.2%</b>	<b>8.8%</b>
Q1	4.9%	7.6%	7.2%	7.9%	90.3%	5.3%
Q2	1.1%	1.3%	9.0%	9.6%	93.2%	1.1%
Q3	3.8%	2.4%	10.5%	13.2%	79.8%	4.6%
Q4	-1.7%	-2.7%	9.6%	10.3%	93.6%	-1.9%
<b>Total</b>	<b>187.2%</b>	<b>262.4%</b>	<b>10.9%</b>	<b>18.1%</b>	<b>60.0%</b>	

\* MSCI Pan-Europe Total Return M2 = Theoretical return assuming the same volatility as the index

\* M2 = Expresses the theoretical performance of the fund adjusted for the index volatility

## 5 Risk Analysis

	3 years	5 years	10 years	Since Inception
<b>VOLATILITY</b>				
Cartesio Y	11.3%	14.2%	11.6%	10.9%
European Equities (M7EU)	14.0%	17.9%	15.7%	18.1%
Relative Volatility	80.5%	79.2%	73.6%	60.1%
<b>SHARPE RATIO</b>				
Cartesio Y	0.34	0.22	0.32	0.37
European Equities (M7EU)	0.17	0.31	0.40	0.29

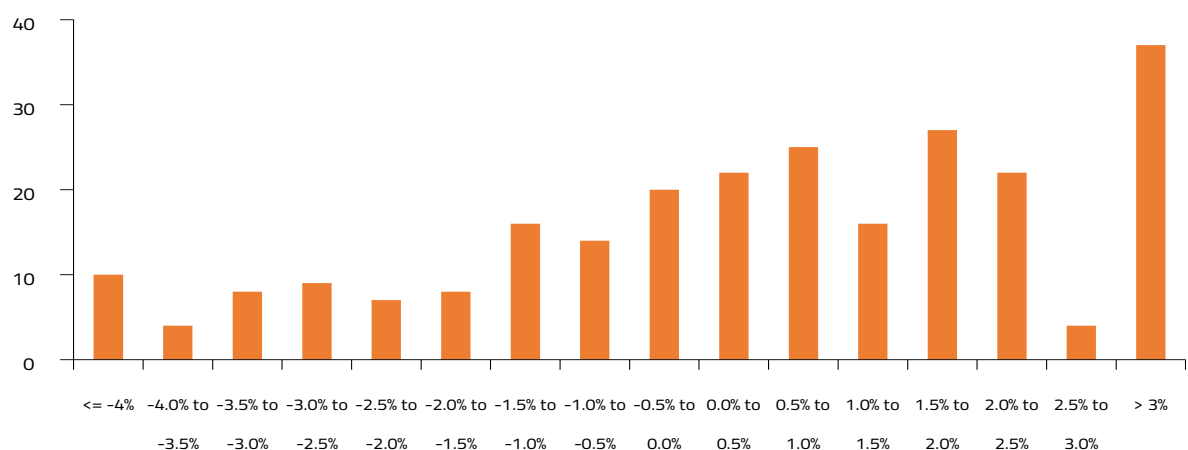
## 6 Maximum Drawdowns

<b>CARTESIO Y</b>				
		Drawdown	Recovery	Max loss period
Dec 19 - Mar 20	-25.4%	3 months	12 months	15 months
Jun 07 - Feb 09	-19.1%	20 months	20 months	40 months
May 22 - Sep 22	-13.6%	4 months	4 months	8 months
<b>RENTA VARIABLE EUROPEA (MSPE)*</b>				
		Drawdown	Recovery	Max loss period
May 07 - Mar 09	-54.1%	22 months	59 months	81 months
Dec 19 - Mar 20	-22.6%	3 months	12 months	15 months
Feb 11 - Sep 11	-18.2%	7 months	12 months	20 months

\*Total return basis (incl. dividends)

## 7 Monthly Return Distribution

The fund is down more than 1% in a month, in 62 of the 249 months since inception.



### Investment Objective

- Replica of Cartesio Y.
- Long term capital appreciation in real terms.
- Higher risk adjusted returns (Sharpe Ratio) than European equities (MSCI Pan Euro Index).
- Willingness to forego potential returns in order to protect capital.

### Asset Allocation

- Total flexibility in equity exposure (0%-100%) depending on market view and risk. Equity and cash are the only assets.

### Risk

- Since inception (Cartesio Y) volatility (10.9%) has been around 60.0% of that of European equities.

### Fees

Class I & Class R

- Management : 1.5%
- Custody: 0.046%

Class Z:

- Management : 0.90%+ 7.5% of annual positive performance (watermark: five years to recover losses before performance fee can be applied).
- Custody: 0.046%

### General information

**Assets**  
86 m €

**Inception Date**  
13/01/2020

**Type**  
SICAV (UCITS IV)

**ISIN**  
LU1966822444 (Class I)  
LU1966822527 (Class R)  
LU1725678517 (Class Z)





**Bloomberg**  
CARTEQI LX (Class I)  
CARTEQR LX (Class R)  
CARTEQZ LX (Class Z)

**Auditor**  
Deloitte

**Administrator & Custodian**  
BNP Paribas

### Ratings\*

 Silver

 ★★★★★ 3 years  
 ★★★ 5 years  
 ★★★ 10 years  
 ★★★ Overall

 5 Lipper Leader Total Return

 5 Lipper Leader Consistent Return

 1 Lipper Leader Preservation

 5 Lipper Leader Expense

\*Ratings correspond to Cartesio Y

Cartesio *X* / Cartesio *Income*

Capital Protection

### Investment Objective

- Long term capital appreciation in real terms.
- Higher risk adjusted returns (Sharpe Ratio) than long term Euro government bonds (Bloomberg Barclays Series-E Euro Govt 7-10 Yr Bond Index).
- Strong emphasis on capital protection.

### Asset allocation

- Flexibility in bonds (0-100%), equity (0-40%) and Cash (0-100%).
- 30% maximum exposure to bonds below investment grade.
- The equity portfolio replicates that of the Cartesio Y fund.

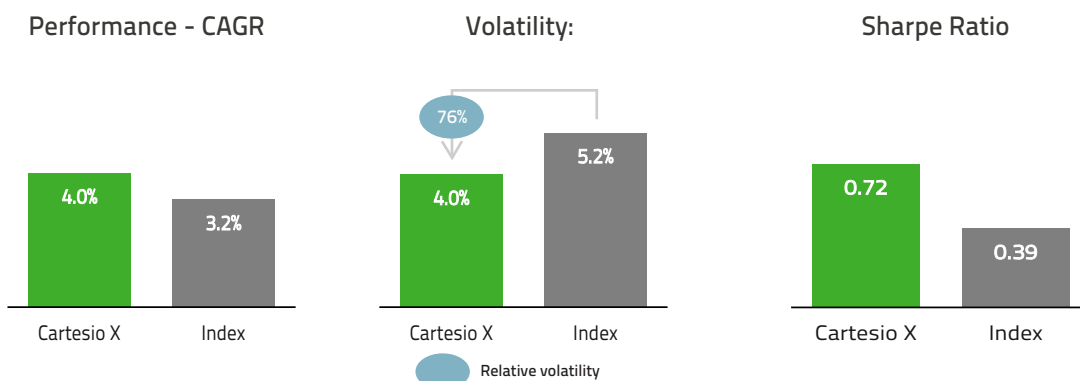
### Risk

- Since inception volatility (4.0%) has been 76.1% of that registered by long term Euro government bonds.

### Fees

- Management : 0.65%+ 7.5% of annual positive performance (watermark: three years to recover losses before performance fee can be applied).
- Custody: 0.045%-0.055%

### Risk adjusted returns since inception 31/03/2004



### General Information

#### Assets

320 m €

#### Inception Date

31/03/2004

#### Fundholders

3267

#### ISIN

ESO116567035

#### Bloomberg

MSCXVDI SM

#### Auditor

Deloitte

#### Administrator & Custodian

BNP Paribas

### Ratings

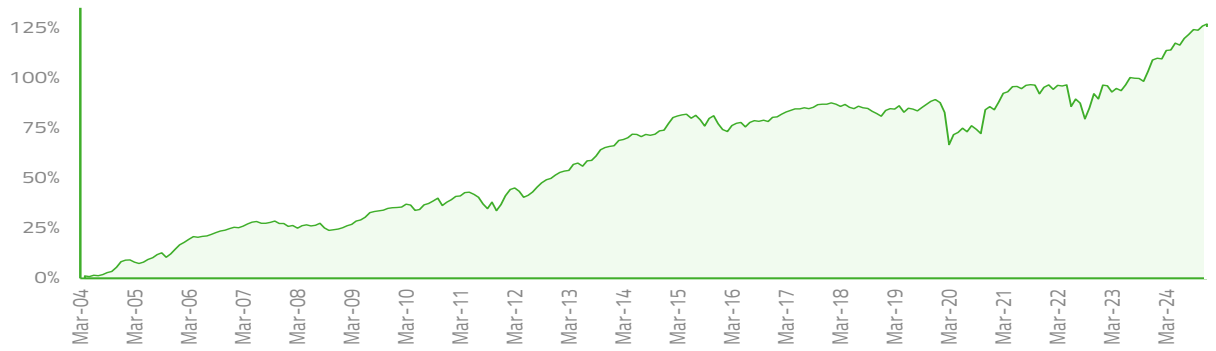


MORNINGSTAR	★★★★★	3 years
MORNINGSTAR	★★★★★	5 years
MORNINGSTAR	★★★★★	10 years
MORNINGSTAR	★★★★★	Overall

- 4 Lipper Leader Total Return
- 4 Lipper Leader Consistent Return
- 5 Lipper Leader Preservation
- 5 Lipper Leader Expense

# 1 Performance

Since inception (31st March 2004) the fund has returned 127.0% (4.0% p.a.)

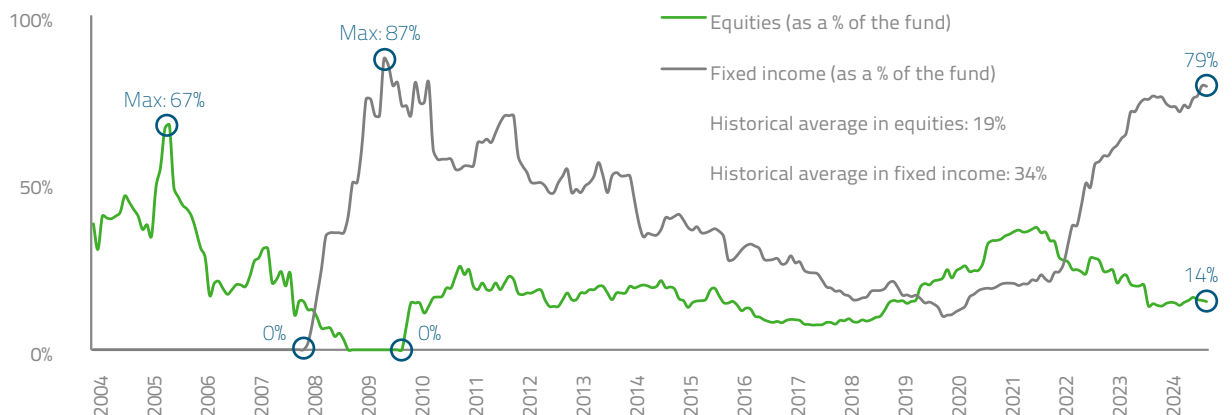


# 2 Monthly Returns

## EVOLUTION - RETURNS

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
2004				1.2%	(0.3%)	0.7%	(0.2%)	0.6%	1.0%	0.5%	2.0%	2.6%	<b>8.3%</b>
2005	0.7%	0.1%	(0.9%)	(0.6%)	0.6%	1.2%	0.8%	1.4%	0.8%	(1.9%)	1.5%	2.1%	<b>5.8%</b>
2006	1.9%	1.0%	1.3%	1.1%	(0.2%)	0.3%	0.2%	0.6%	0.7%	0.7%	0.3%	0.7%	<b>9.0%</b>
2007	0.5%	(0.1%)	0.6%	0.8%	0.8%	0.2%	(0.6%)	(0.1%)	0.4%	0.5%	(1.0%)	0.0%	<b>2.1%</b>
2008	(1.2%)	0.3%	(1.0%)	1.0%	0.3%	(0.4%)	0.2%	0.8%	(1.8%)	(1.0%)	0.3%	0.3%	<b>(2.2%)</b>
2009	0.5%	0.8%	0.5%	1.3%	0.5%	1.0%	1.8%	0.4%	0.3%	0.3%	0.7%	0.2%	<b>8.5%</b>
2010	0.1%	0.2%	1.1%	(0.3%)	(2.0%)	0.3%	1.7%	0.5%	0.9%	1.0%	(2.6%)	1.2%	<b>2.1%</b>
2011	0.9%	1.2%	0.2%	1.2%	0.1%	(0.8%)	(1.0%)	(2.4%)	(1.7%)	2.4%	(3.0%)	2.3%	<b>(0.8%)</b>
2012	3.2%	2.2%	0.5%	(1.2%)	(2.1%)	0.7%	1.2%	1.8%	1.4%	1.0%	0.5%	1.1%	<b>10.7%</b>
2013	0.9%	0.4%	0.2%	2.0%	0.4%	(1.0%)	1.7%	0.1%	1.4%	1.9%	0.7%	0.4%	<b>9.4%</b>
2014	0.2%	1.6%	0.3%	0.5%	1.0%	(0.0%)	(0.6%)	0.7%	(0.3%)	0.3%	1.0%	0.2%	<b>4.8%</b>
2015	1.9%	1.7%	0.5%	0.3%	0.2%	(1.1%)	0.8%	(1.2%)	(1.7%)	2.2%	0.8%	(2.2%)	<b>1.9%</b>
2016	1.7%	(0.6%)	1.8%	0.6%	0.3%	(1.2%)	1.2%	0.5%	(0.2%)	0.3%	(0.4%)	1.2%	<b>1.8%</b>
2017	0.2%	0.8%	0.6%	0.4%	0.4%	(0.0%)	0.3%	(0.2%)	0.4%	0.7%	0.1%	(0.0%)	<b>3.6%</b>
2018	0.4%	(0.4%)	(0.6%)	0.5%	(0.8%)	(0.3%)	0.6%	(0.4%)	(0.2%)	(0.8%)	(0.6%)	(0.8%)	<b>(3.2%)</b>
2019	1.6%	0.4%	(0.1%)	0.9%	(1.8%)	1.1%	(0.2%)	(0.5%)	0.9%	0.8%	0.8%	0.5%	<b>4.6%</b>
2020	(0.8%)	(2.6%)	(8.8%)	3.0%	0.6%	1.2%	(1.0%)	1.8%	(1.0%)	(1.2%)	6.9%	0.8%	<b>(1.9%)</b>
2021	(0.8%)	2.1%	2.3%	0.4%	1.3%	0.1%	(0.5%)	0.8%	0.2%	(0.1%)	(2.2%)	1.6%	<b>5.2%</b>
2022	0.6%	(1.1%)	1.0%	(0.2%)	0.3%	(5.5%)	2.0%	(1.1%)	(4.2%)	3.0%	3.9%	(1.4%)	<b>(2.9%)</b>
2023	3.6%	(0.1%)	(1.6%)	0.9%	(0.6%)	1.5%	1.8%	(0.2%)	(0.1%)	(0.7%)	2.5%	2.8%	<b>10.3%</b>
2024	0.4%	(0.1%)	2.0%	0.1%	1.6%	(0.4%)	1.5%	0.9%	1.1%	(0.2%)	1.0%	0.5%	<b>8.6%</b>

# 3 Equity and Fixed Income Exposure (%)





## 4 Quarterly Risk Adjusted Returns

Since inception (31st March 04) the fund has returned 127.0% (4.0% p.a.) with a volatility of 4.0%. Sharpe ratio since inception is 0.72 (Bloomberg Barclays Series-E Euro Govt 7-10 Yr Bond Index: 0.39)

EVOLUTION - RETURN / RISK						
	Returns		Volatility		Relative Volatility vs Index	M2*
	Fund	Index*	Fund	Index*		
<b>2004 (since 31/3/04)</b>	<b>8.3%</b>	<b>5.5%</b>	<b>2.8%</b>	<b>3.4%</b>	<b>81.2%</b>	<b>9.9%</b>
<b>2005</b>	<b>5.8%</b>	<b>6.0%</b>	<b>4.0%</b>	<b>3.5%</b>	<b>113.2%</b>	<b>5.3%</b>
<b>2006</b>	<b>9.0%</b>	<b>-1.0%</b>	<b>2.2%</b>	<b>3.5%</b>	<b>62.7%</b>	<b>12.7%</b>
<b>2007</b>	<b>2.1%</b>	<b>1.8%</b>	<b>3.0%</b>	<b>3.7%</b>	<b>81.1%</b>	<b>1.6%</b>
<b>2008</b>	<b>-2.2%</b>	<b>10.8%</b>	<b>3.1%</b>	<b>6.1%</b>	<b>49.9%</b>	<b>-8.9%</b>
<b>2009</b>	<b>8.5%</b>	<b>4.7%</b>	<b>1.5%</b>	<b>5.1%</b>	<b>30.3%</b>	<b>25.0%</b>
<b>2010</b>	<b>2.1%</b>	<b>-0.3%</b>	<b>2.8%</b>	<b>4.7%</b>	<b>60.0%</b>	<b>3.0%</b>
<b>2011</b>	<b>-0.8%</b>	<b>2.2%</b>	<b>4.9%</b>	<b>6.3%</b>	<b>78.6%</b>	<b>-1.1%</b>
<b>2012</b>	<b>10.8%</b>	<b>14.9%</b>	<b>3.3%</b>	<b>4.8%</b>	<b>69.3%</b>	<b>14.9%</b>
<b>2013</b>	<b>9.5%</b>	<b>2.9%</b>	<b>2.7%</b>	<b>4.2%</b>	<b>63.8%</b>	<b>14.5%</b>
<b>2014</b>	<b>4.8%</b>	<b>16.9%</b>	<b>3.1%</b>	<b>3.4%</b>	<b>90.7%</b>	<b>5.3%</b>
<b>2015</b>	<b>1.9%</b>	<b>2.1%</b>	<b>3.8%</b>	<b>5.3%</b>	<b>71.6%</b>	<b>2.6%</b>
<b>2016</b>	<b>1.8%</b>	<b>3.7%</b>	<b>4.0%</b>	<b>4.0%</b>	<b>98.7%</b>	<b>1.8%</b>
<b>2017</b>	<b>3.6%</b>	<b>1.3%</b>	<b>1.1%</b>	<b>3.7%</b>	<b>31.0%</b>	<b>12.7%</b>
<b>2018</b>	<b>-3.2%</b>	<b>1.4%</b>	<b>1.8%</b>	<b>3.0%</b>	<b>58.4%</b>	<b>-5.2%</b>
<b>2019</b>	<b>4.6%</b>	<b>6.7%</b>	<b>2.6%</b>	<b>3.8%</b>	<b>70.0%</b>	<b>6.7%</b>
<b>2020</b>	<b>-1.9%</b>	<b>4.5%</b>	<b>9.2%</b>	<b>5.0%</b>	<b>183.9%</b>	<b>-1.2%</b>
<b>2021</b>	<b>5.2%</b>	<b>-2.9%</b>	<b>4.1%</b>	<b>3.7%</b>	<b>108.3%</b>	<b>4.8%</b>
Q1	3.6%	-1.6%	3.8%	3.6%	105.1%	3.4%
Q2	1.8%	-0.5%	3.0%	2.9%	102.5%	1.7%
Q3	0.5%	-0.1%	3.9%	3.0%	129.7%	0.3%
Q4	-0.7%	-0.7%	4.8%	5.0%	96.1%	-0.7%
<b>2022</b>	<b>-2.9%</b>	<b>-19.4%</b>	<b>6.8%</b>	<b>10.2%</b>	<b>67.0%</b>	<b>-4.1%</b>
Q1	0.5%	-5.9%	8.8%	7.6%	115.2%	0.4%
Q2	-5.4%	-7.0%	6.2%	11.0%	56.4%	-9.3%
Q3	-3.3%	-5.7%	6.3%	10.9%	57.7%	-5.5%
Q4	5.6%	-2.2%	5.5%	11.5%	47.7%	11.4%
<b>2023</b>	<b>10.3%</b>	<b>8.9%</b>	<b>4.5%</b>	<b>8.8%</b>	<b>51.0%</b>	<b>17.3%</b>
Q1	1.8%	3.3%	6.9%	12.0%	57.9%	2.8%
Q2	1.9%	0.1%	4.0%	7.6%	53.0%	3.0%
Q3	1.6%	-2.5%	2.8%	7.7%	36.5%	2.9%
Q4	4.7%	8.0%	3.7%	7.5%	48.8%	8.5%
<b>2024</b>	<b>8.6%</b>	<b>1.8%</b>	<b>2.3%</b>	<b>5.5%</b>	<b>42.5%</b>	<b>15.2%</b>
Q1	2.3%	-0.7%	2.1%	5.7%	36.6%	4.7%
Q2	1.3%	-1.4%	2.5%	6.5%	37.6%	1.8%
Q3	3.6%	4.6%	2.5%	4.6%	54.3%	5.7%
Q4	1.3%	-0.6%	2.3%	4.6%	49.5%	1.7%
<b>Total</b>	<b>127.0%</b>	<b>93.5%</b>	<b>4.0%</b>	<b>5.2%</b>	<b>76.1%</b>	

Bloomberg Barclays Series-E Euro Govt 7-10 Yr M2 = Theoretical return assuming the same volatility as the index

\* M2 = Expresses the theoretical performance of the fund adjusted for the index volatility

## 5 Risk Analysis

	3 years	5 years	10 years	Since Inception
<b>VOLATILITY</b>				
Cartesio X	4.9%	5.9%	4.6%	4.0%
Long Term Euro Gov Bonds	8.4%	7.1%	5.8%	5.2%
Relative Volatility	58.6%	83.1%	80.5%	76.1%
<b>SHARPE RATIO</b>				
Cartesio X	0.64	0.46	0.51	0.72
Long Term Euro Gov Bonds	-0.67	-0.41	0.03	0.39

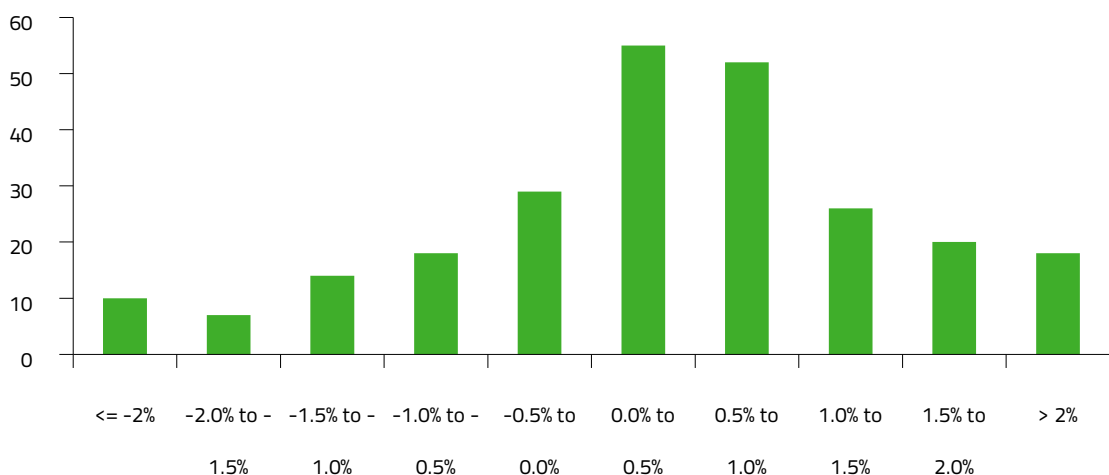
## 6 Maximum Drawdowns

<b>CARTESIO X</b>				
		Drawdown	Recovery	Max loss period
Dec 19 - Mar 20	-11.8%	3 months	12 months	15 months
May 22 - Sep 22	-8.8%	4 months	9 months	13 months
May 11 - Nov 11	-6.4%	6 months	3 months	9 months

<b>BLOOMBERG BARCLAYS SERIES-E EURO GOVT 7-10 YR</b>				
		Drawdown	Recovery	Max loss period
Dec 20 - Dec 22	-21.7%	24 months	-	-
Aug 10 - Nov 11	-7.9%	15 months	3 months	18 months
Mar 15 - Jun 15	-5.6%	7 months	10 months	17 months

## 7 Monthly Return Distribution

The fund is down more than 1% in a month, in 31 of the 249 months since inception.



## Investment Objective

- Long term capital appreciation in real terms.
- Higher risk adjusted returns (Sharpe Ratio) than long term Euro government bonds (Bloomberg Barclays Series-E Euro Govt 7-10 Yr Bond Index).
- Strong emphasis on capital protection.

## Asset allocation

- Flexibility in bonds (0 - 100%), equity (0 - 40%) and Cash (0 - 100%).
- 20% maximum exposure to bonds below investment grade.
- The equity portfolio replicates that of the Cartesio Y fund.

## Risk

- Since inception volatility (4.1%) has been 76.1% of that registered by long term Euro Government Bonds.

## Fees

Class I & Class R:

- Management : 0.95%
- Custody: 0.043%

Class Z:

- Management : 0.65% + 7.5% of annual positive performance (watermark: three years to recover losses before performance fee can be applied).
- Custody: 0.043%

## General Information

### Assets

222m €

### Inception date

13/01/2020

### Estructura legal

SICAV (UCITS IV)

### ISIN

LU1966822873 (Class I)  
LU1966822956 (Class R)  
LU1966823095 (Class Z)

### Bloomberg

CARTINI LX (Class I)  
CARTINR (Class R)  
CARTINZ LX (Class Z)

### Auditor

Deloitte

### Administrator & Custodian

BNP Paribas

## Ratings\*



MORNINGSTAR ★★★★★ 3 years  
MORNINGSTAR ★★★★★ 5 years  
MORNINGSTAR ★★★★★ 10 years  
MORNINGSTAR ★★★★★ Overall

- 4 Lipper Leader Total Return
- 4 Lipper Leader Consistent Return
- 5 Lipper Leader Preservation
- 5 Lipper Leader Expense

\*Ratings correspond to Cartesio X

# Team

## Investment Team

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A team of six investment professionals lead by the founding partners actively manages the funds in accordance with the unique investment process that has characterized Cartesio since its inception

### Founding Partners and Fund Managers

#### **Juan A. Bertrán, CFA**

**Cartesio**  
Founding Partner. Director.CEO

#### **Cayetano Cornet, CFA**

**Cartesio**  
Founding Partner. Director

#### **Álvaro Martínez**

**Cartesio**  
Founding Partner. Director

### Partners and Fund Managers

#### **Ignacio Carvajal**

**Cartesio**  
Senior Research Analyst and  
Portfolio Manager (since 2016)

#### **Ignacio Sanz, CFA**

**Cartesio**  
Senior Research Analyst and  
Portfolio Manager (since 2015)

#### **Jorge Losa, CFA**

**Cartesio**  
Research Analyst  
(since 2017)

## Finance & Corporate Development

#### **Juan Ignacio González**

**Cartesio**  
CFO and Head of Corporate  
Development (2019)

## Administration Team

### Risk Management & Operations

#### **Itziar Álvarez**

**Cartesio**  
Head of Risk Management  
(Since 2007)

#### **Paloma Álvarez**

**Cartesio**  
Operations and Accounting  
(Since 2009)

#### **Antonio Madueño**

**Cartesio**  
Head of Compliance and Data  
Protection Office (Since 2014)

### Clients Services

#### **Mar Capón**

**Cartesio**  
Client Services and Office  
Manager (Since 2014)

#### **Alicia Pérez**

**Cartesio**  
Client Services (Since 2004)

## Founding Partners and Managers



**Juan A. Bertrán, CFA**

**Cartesio**

Founding Partner. Director.CEO

**IE Business School**

Associate Professor Economics

**Morgan Stanley**

Managing Director (1999-04)

**AB Asesores**

Partner (1988-99)

**Ministerio de Economía**

Técnico Comercial y Economista del Estado (1985-88)

**Columbia University**

M. Phil Economics (1984)

M. A Economics (1983)

**Universidad Complutense**

BSc Economics (1981)



**Cayetano Cornet, CFA**

**Cartesio**

Founding Partner. Director

**Invercaixa (Grupo La Caixa)**

Chief Investment Officer-  
Equities (1998-04)

**Credit Lyonnais Securities**

Equity Research (1996-98)

**Andersen Consulting**

Consultant (1994-96)

**Universidad Complutense**

BSc Economics (1992)



**Álvaro Martínez**

**Cartesio**

Founding Partner. Director

**Morgan Stanley**

Executive Director (1999-03)

**AB Asesores**

Managing director (1992-99)

**LCF Edmond de Rothschild Securities**

Director (1988-92)

**BNP Paribas Securities**

Investment Analyst  
(1987-88)

**Touche Ross**

Auditor (1985-86)

**London School of Economics**

BSc Econ (1985)

## Partners and Fund Managers

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### **Ignacio Carvajal**

#### **Cartesio**

Senior Research Analyst and Portfolio Manager (since 2016)

#### **AENA**

Management Committee, Head of IR (2013-15)

#### **UBS**

Executive Director (2004-12)

#### **BBVA Bolsa**

Research Analyst (2002-04)

#### **CSFB**

Research Analyst (1999-01)

#### **BSCH**

Research Analyst Iberia (1998-99)

#### **ICADE (E-2)**

Bsc Business Administration (1997)



### **Ignacio Sanz, CFA**

#### **Cartesio**

Senior Research Analyst and Portfolio Manager (since 2015)

#### **UBS**

Executive Director (2005-15)

#### **Benito & Monjardín Deputy**

Head of Research, Financial Sector Research Analyst (2004-05)

#### **BBVA Bolsa**

Research Analyst Iberia (2000-04)

#### **Renta 4**

Junior Research Analyst Iberia (1996-99)

#### **Instituto Español de Analistas Financieros**

Master in Financial Markets, CEFA (2000)

#### **Universidad Alcalá de Henares**

BSc Business Administration (Accounting) and Actuarial Science (1997)



### **Jorge Losa, CFA**

#### **Cartesio**

Senior Research Analyst and Portfolio Manager (since 2017)

#### **UBS**

Associate Director - Financial Institutions (2011-17)

#### **Alantra (NMA51)**

Corporate finance advisory (2010-11)

#### **ICADE (E-3)**

Law (2005-10) and Bsc Business

### **Cartesio**

## Finance & Corporate Development



### Juan Ignacio González

#### Cartesio

CFO and Head of Corporate Development (Since 2019)

#### Garrigues

Counsel Commercial Law Department and financial-regulatory (2007-2019)

#### CNMV

Senior Officer (1998-2007)

#### Autonomous University of Madrid

Bsc Law (1997)

## Risk Management & Operations



### Itziar Álvarez

#### Cartesio

Head of Risk Management (Since 2007)

#### Morgan Stanley

Head of Settlements (1999-2003)

#### AB Asesores

Head of Settlements (1994-1999)

#### Seinsa

Accounting Department (1993)

#### Universidad Autónoma de Madrid

Bsc Business Administration (1993)



### Paloma Álvarez

#### Cartesio

Operations and Accounting (Since 2009)

#### BMW Iberica

IT Implementation Project (2007 – 2009)

#### Bankinter

Insurance Department (2007)

#### Universidad Autónoma de Madrid

BSc Economics (2007)



### Antonio Madueño

#### Cartesio

Head of Compliance and Data Protection Officer (Since 2014)

#### Kiron

Financial Advisor (2014)

#### Squire Patton Boggs

Corporate Law Department (2013)

#### CUNEF

BA Law (2013)

#### CUNEF

Bsc in Business Administration (2012)



# Client Services

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## **Mar Capón**

### **Cartesio**

Client Services and Office Manager (Since 2014)

### **Inergia Grupo**

Account Manager (2008-2013)

### **Starbucks España**

Financial Department (2004-2008)

### **Universidad Carlos III**

Diploma in International Trade and Marketing (1996)

### **Universidad Carlos III**

BA Law (1996)



## **Alicia Pérez**

### **Cartesio**

Client Services (Since 2004)

### **Qualytel Teleservices**

Document Management (2004)

### **Nestle España**

Export Department (2003)

### **Nestle México**

Legal Department (2002)

### **Universidad Carlos III**

Master in International Business and Trade (2003)

### **Universidad Latinoamericana**

Assistant Teacher, International Trade (2001)

### **Universidad Latinoamericana (México)**

BA Law (2000)

# Awards

An outstanding track-record built by the founding partners has been recognised by several prestigious awards . In 2018 Cartesio won the Morningstar Pan-European Fund Manager of the Year-Multi Asset and Alternatives.

## 2023

MORNINGSTAR - EUROPE  
Best EUR Allocation Fund of the Year  
2023 Cartesio Equity



## Other awards

## 2018

MORNINGSTAR - EUROPE  
Pan-European Fund Manager of the  
Year Multi-Asset and Alternatives



## 2015

EXPANSIÓN — ALLFUNDS BANK  
Fund Manager of the Year



## 2014

MORNINGSTAR - SPAIN  
Cartesio Y — Balanced European Fund  
of the Year



## 2006

EXPANSIÓN - Standard & Poor's  
Cartesio Y — Balanced Global Fund of  
the Year





# Cartesio Y FI

<b>Morningstar Medalist Rating</b> Silver 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	<b>Morningstar Rating™</b> ★★★ 31 Dec 2024 542 Inv. in Category	<b>Sustainability Rating</b> 31 Oct 2024	<b>Morningstar Category</b> EAA Fund EUR Flexible Allocation	<b>Category Index</b> Morningstar EU Mod Tgt Alloc NR EUR	<b>Total Assets</b> 209.5 EUR Mil	<b>Inception Date</b> 23 Feb 2004
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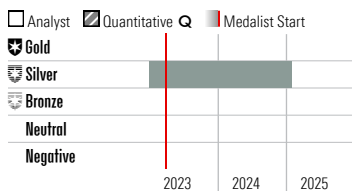
**Thomas De Fauw**  
Analyst

Analyst-Driven %	100.0
Data Coverage %	100.0

**Morningstar Pillars**

Process(02 Feb 2024)		Above Average
People(02 Feb 2024)		Above Average
Parent(16 Feb 2023)		Above Average

**Historical Medalist Rating**



**Role in Portfolio: —**

**Morningstar Medalist Rating**

Morningstar Medalist Ratings/Pillar Scores are assigned based on (1) an analyst's qualitative assessment, either directly or indirectly or (2) using algorithmic techniques intended to be similar to those an analyst might assign if he/she had covered the vehicle. Investment vehicles are evaluated on three key pillars. Qualitative investment research is produced and issued by subsidiaries of Morningstar, Inc. Quantitatively-driven analysis is generated using mental models meant to mirror analyst-driven written analysis.

## A solid, flexible equity offering.

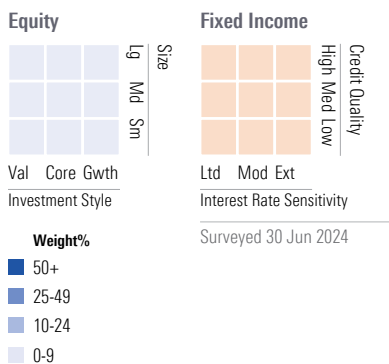
**Summary** Thomas De Fauw, 02 Feb 2024 20:29 UTC

Cartesio's equity strategy remains a strong proposition in the EUR flexible allocation Morningstar Category with both People and Process Pillars at Above Average.

We hold the managers and firm founders Juan Bertrán, Alvaro Martinez, and Cayetano Cornet in high regard. This dedicated trio has been investing together since 2004 and has closely aligned their interests with those of investors. To support their research effort, between 2015 and 2017, they built a team of four analysts, of which three remain. Ignacio Sanz and Ignacio Carvajal became portfolio managers and partners in 2019 and Jorge Losa in 2023.

The team has a vast universe to cover as it invests in European firms of all sizes and opportunistically in other regions. The managers rely to some extent on sell-side research, but this strategy (with funds called Cartesio Y in Spain and Cartesio Equity in Luxembourg) has a patient, value-oriented, and established process, which helps narrow the opportunity set. There are two sources of alpha here: asset allocation between stocks and cash (0-100%) and stock selection. The managers calibrate the strategy's equity/cash mix based on their investment outlook and bottom-up assessment of the opportunity set. They typically respond gradually and countercyclically to major market moves or dislocations, preferring to keep cash for safety and optionality when prevailing valuations are high and opportunities are scarce. As for stock selection, the managers invest in 30–40 names with a long-term horizon. Companies are individually selected based on their fundamental merit but with a strong focus on valuations.

**Style**



	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD	
<b>Investment Style</b>												<b>Investment Style</b>
												Equity Style Box
												Fixed Income Style Box
<b>Total Return % (EUR)</b>												<b>Total Return % (EUR)</b>
	7.41	0.91	7.22	-4.92	9.96	-6.73	10.46	-1.45	11.35	8.15	8.15	Investment
	3.39	2.10	6.87	-9.74	12.37	0.21	10.88	-11.31	8.67	6.01	5.89	Category Average
	5.82	3.52	5.65	-4.65	15.84	2.32	11.32	-12.38	11.10	8.07	8.07	Category Index
<b>Performance Quartile</b>												<b>Performance Quartile</b>
												(within Category)
	22	59	39	16	62	85	50	7	27	32	N/A	Percentile Rank
	597	631	634	700	718	710	688	671	675	664	662	# of Inv in Cat.

YTD Investment as of 31 Dec 2024 | Category: EAA Fund EUR Flexible Allocation as of 9 Jan 2025 | Index: Morningstar EU Mod Tgt Alloc NR EUR as of 9 Jan 2025 | Italics indicate Extended Performance. Extended performance is an estimate based on the performance of the fund's oldest share class, adjusted for fees. Performance data presented is non-standardized. For standardized performance see the Standardized and Tax Adjusted Returns Disclosure Statement. **\*Performance Disclosure:** The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please visit <http://advisor.morningstar.com/familyinfo.asp>.

# Cartesio Y FI

## Morningstar Medalist Rating



02 Feb 2024 20:29 UTC  
Thomas De Fauw, Analyst

## Morningstar Rating™



31 Dec 2024  
542 Inv. in Category

## Sustainability Rating



31 Oct 2024

## Morningstar Category

EAA Fund EUR  
Flexible Allocation

## Category Index

Morningstar EU Mod  
Tgt Alloc NR EUR

## Total Assets

209.5 EUR Mil

## Inception Date

23 Feb 2004

Long-term risk-adjusted results remain solid, relative to both the fund's benchmark (the MSCI Pan Europe Index) and peers. The team added value through top-down positioning as well as stock selection. Although it has protected capital well since its launch in 2004, the first quarter of 2020 proved disastrous, with several cyclical positions severely hit amid the market selloff. Performance has since recovered; over the trailing three years through December 2023, the Cartesio Y fund outperformed 89% of its EUR flexible allocation Morningstar Category peers. We think the strategy rests on solid ground and retains the potential to deliver on its mandate.

**Process** Above Average | Thomas De Fauw, 02 Feb 2024 20:29 UTC




### Approach

This established, long-term-oriented process has been executed consistently since the strategy's launch in 2004. There are two main components for alpha generation here: top-down allocation and stock selection. The managers calibrate the strategy's equity/ cash mix based on their investment outlook and bottom-up assessment of the opportunity set. This is the part of the process that is most difficult to get right consistently, as is true for all flexible-allocation strategies. As for stock selection, the managers maintain a long-term view, seeking competitively positioned and financially sound companies with strong cash flow generation that are trading below the team's fundamental estimate of intrinsic value, typically based on discounted cash flow analysis. They usually avoid highly leveraged firms or areas of the market deemed too expensive or crowded. The portfolio focuses mainly on European companies of all sizes, but the managers can opportunistically add small stakes in nondomestic firms. A small sleeve of the portfolio may be tactically invested in index futures or options to modify or hedge part of the fund's equity exposure. All in all, we like the managers' patience and long-term orientation, their high-conviction approach, flexibility and efficiency in decision-making, and valuation discipline. Our Process Pillar rating remains Above Average.


### Portfolio

The strategy's allocation to equities can potentially fluctuate between 0 and 100%, though historically it has moved in the 15%-85% range (63% on average). The asset-allocation mix tends to be slow-moving, as the team typically responds gradually and countercyclically to major market moves or dislocations, preferring to keep cash for safety and optionality when opportunities are scarce. After reaching a high of 86% in 2011, the fund's equity stake progressively declined after 2015 as the team viewed equity markets as relatively expensive. Equity exposure reached a multiyear low of 39% at the end of June 2018, at which point the team started finding more opportunities among beaten-down cyclicals. As a result, the strategy came into the March 2020 selloff with around 70% exposure to stocks, slightly above its long-term average. Despite suffering considerable losses, the team added to its equity stake, lifting it to around 83% of assets by December 2021 as it felt confident the equity portfolio would do well in the postpandemic era. In the following two years, the team was less active, adding a handful of new names to the portfolio including

# Cartesio Y FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 542 Inv. in Category	 31 Oct 2024	EAA Fund EUR Flexible Allocation	Morningstar EU Mod Tgt Alloc NR EUR	209.5 EUR Mil	23 Feb 2004

Bayer, Rio Tinto, and British American Tobacco while selling Atos, Electricité de France, and Novartis. At the end of 2023, the fund had 85% of its assets in stocks, up from 76% a year earlier, and was overweight relative to peers in basic materials, communication services, and energy and underweight in consumer cyclicals, healthcare, and technology.

**People**  Above Average | Thomas De Fauw, 02 Feb 2024 20:29 UTC

This team stands out in terms of experience, stability, dedication, and alignment of interests with investors. We also appreciate the six managers' independent, contrarian mindset and strong belief in their investment process, which helps them narrow an otherwise vast investment universe of potential candidates that the team needs to cover. Our People Pillar rating is Above Average.

Juan Bertrán, Alvaro Martinez, and Cayetano Cornet founded Cartesio Inversiones and invest all their financial net worth in the two strategies they manage. Bertrán and Martinez worked together for around 10 years at AB Asesores (acquired by Morgan Stanley in 2000) in the equities sales department before founding Cartesio. Cornet has more than 25 years of investment experience, having worked for Credit Lyonnais and Invercaixa. The managers built a compact supporting team of four analysts in 2015-17 as the firm's assets under management grew. Unfortunately, the team is down by one; one of the more-junior staff members left the firm in July 2020 and has not been replaced. Ignacio Sanz and Ignacio Carvajal, who joined in 2015 and 2016, respectively, became portfolio managers in 2019, and Jorge Losa was promoted to the role in 2023. The three form the firm's investment committee alongside the three founders. They also became partners, with a small ownership stake in the firm, which is a welcome measure with regard to key staff retention and long-term succession planning.




**Parent**  Above Average | Thomas De Fauw, 16 Feb 2023 13:39 UTC

Cartesio Inversiones remains a strong steward of capital, and we are keeping its Parent Pillar rating at Above Average.

We continue to like the firm thanks to its stable team, focused lineup, and strong alignment of interests with investors. The firm's investment ethos is grounded on solid principles that have been applied consistently for more than 15 years.

Since its 2004 inception, this Madrid-based boutique has offered two active strategies: a flexible equity and a cautious multi-asset fund. They are run by the firm's three founders with the support of a small team they have built up in recent years. Two of them were promoted to portfolio manager in 2019. Sadly, the firm has also seen three junior analysts leave since 2014. The founding managers and owners invest all their net worth in the funds, which helps align their interests with investors', and have been selling a small part of their shares to the two other portfolio managers to strengthen retention and as a first small step toward long-term succession planning. Fees on the Spanish funds and their Luxembourg-domiciled siblings remain

# Cartesio Y FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 542 Inv. in Category	 31 Oct 2024	EAA Fund EUR Flexible Allocation	Morningstar EU Mod Tgt Alloc NR EUR	209.5 EUR Mil	23 Feb 2004

competitive, especially for retail investors. Both funds charge a small (7.5%) performance fee on top of a relatively modest base commission, which further increases the group's focus on performance.

## Performance

Cartesio's equity strategy posted the worst monthly return of its history in March 2020, as the fund was positioning for a cyclical upturn just as coronavirus fears hit the market.

But performance recovered strongly and the renewed interest in value and cyclical stocks combined with the large cash balance led the Spain-domiciled Cartesio Y to outperform 89% of its EUR flexible target allocation peers over the past three years through December 2023.

From its inception in February 2004 to the end of January 2023, Cartesio Y delivered an annualized return of 5.1%, well ahead of the category average and on par with the Morningstar Euro Moderate Target Allocation Index but 1.1 percentage points behind its MSCI Pan-Europe Index benchmark. It protected capital well in 2008 by increasing cash investments substantially in mid-2007, whereas performance was ahead of the category in 2009 because the fund's equity exposure was higher than average. In the volatile 2018, the strategy's modest equity exposure (39%) helped performance, while below-average equity weight held the strategy back in 2019. In 2021, the fund landed in the 50th percentile of its EUR flexible allocation category, while strong security selection and an underweighting in rate-sensitive sectors like technology landed the fund within the first decile of its category in 2022. Stock selection disappointed in 2023 in part because of weak results in healthcare. Despite the 2020 turmoil, the fund's volatility and drawdowns remain substantially lower than its European equities benchmark, resulting in a slightly higher Sharpe ratio since the fund's inception.

## Price

It's critical to evaluate expenses, as they come directly out of returns.




Based on our assessment of the fund's People, Process, and Parent Pillars in the context of these expenses, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Medalist Rating of Silver.

## Sustainability Summary | Autogenerated by Morningstar Manager Research, 03 Jan 2025 16:14 UTC

Cartesio Y FI may not appeal to sustainability-conscious investors.

This fund has relatively low exposure to ESG risk compared with its peers in the Flexible Allocation category, earning it the second highest Morningstar Sustainability Rating of 4 globes. ESG risk measures the degree to which material environmental, social, and governance issues, such as climate change, biodiversity, human capital, as well as bribery and corruption, could affect valuations. ESG risk differs from impact, which is about driving positive environmental and social outcomes for society's benefit.

# Cartesio Y FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 542 Inv. in Category	 31 Oct 2024	EAA Fund EUR Flexible Allocation	Morningstar EU Mod Tgt Alloc NR EUR	209.5 EUR Mil	23 Feb 2004

Cartesio Y FI has an asset-weighted Carbon Risk Score of 7.4, indicating that its companies have low exposure to carbon-related risks. These are risks associated with the transition to a low-carbon economy such as increased regulation, changing consumer preferences, technological advancements, and stranded assets.

A potential issue for a sustainability-focused investor is that Cartesio Y FI is not classified by its manager as Article 8 or Article 9 of the Sustainable Finance Disclosure Regulation, meaning that the fund doesn't aim to promote ESG characteristics or have a sustainable objective. Currently, the fund has 18.3% involvement in fossil fuels, surpassing 8.8% for the average peer in its category. Companies are considered involved in fossil fuels if they derive some revenue from thermal coal, oil, and gas.

The fund exhibits moderate exposure (8.89%) to companies with high or severe controversies. Controversies are incidents that have a negative impact on stakeholders or the environment, which create some degree of financial risk for the company. Examples of types of controversies include bribery and corruption scandals, workplace discrimination and environmental incidents. Severe and high controversies can have significant financial repercussions, ranging from legal penalties to consumer boycotts. Such controversies can also damage the reputation of both companies themselves and their shareholders. ■■■



# Cartesio Y FI

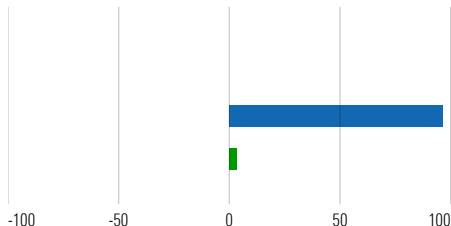
Process | ● Above Average

**Morningstar Category**  
EAA Fund EUR Flexible Allocation

**Category Index**  
Morningstar EU Mod Tgt Alloc NR EUR

**Prospectus Benchmark**  
MSCI Europe Net TR in EUR

## Asset Allocation 30 Jun 2024



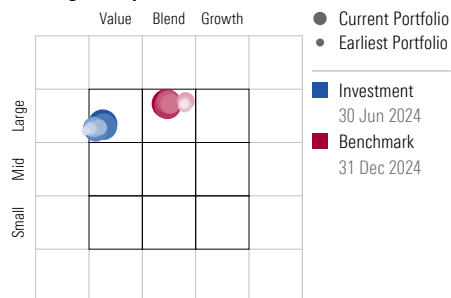
Asset Class	Net	Short	Long	Cat Avg	Cat Index
Fixed Income	0.00	0.00	0.00	35.57	41.75
Preferred	0.00	0.00	0.00	0.04	0.00
Convertible	0.00	0.00	0.00	0.76	0.07
Equity	96.58	0.00	96.58	61.28	49.90
Cash	3.42	13.34	16.76	8.69	0.00
Other	0.00	0.00	0.00	-6.34	8.28
<b>Total</b>	<b>100.00</b>	<b>13.34</b>	<b>113.34</b>	<b>100.00</b>	<b>100.00</b>

## Top Holdings 30 Jun 2024

Holdings	Portfolio Weight %	Investment Type	Total Rtn YTD %
Future on EUR/USD Future	7.65	Cash	—
Merlin Pro... SOCIMI SA	4.76	Equity	2.17
Repsol SA	3.81	Equity	0.90
Covestro AG	3.69	Equity	-0.11
TotalEnergies SE	3.61	Equity	4.83

## Equity

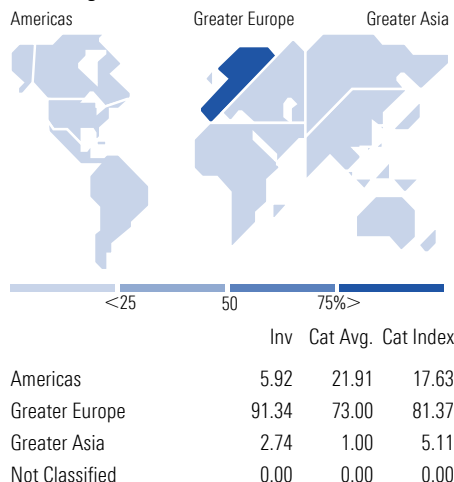
### Morningstar Style Trail 30 Jun 2024



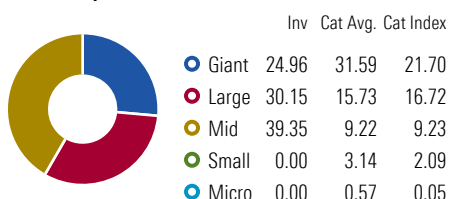
### Sector Weightings % 30 Jun 2024

	Inv	Cat Avg	Cat Index
<b>Cyclical</b>	<b>43.69</b>	<b>38.00</b>	<b>36.20</b>
Basic Materials	14.93	6.16	5.31
Consumer Cyclical	5.90	11.29	9.83
Financial Services	15.96	18.37	18.94
Real Estate	6.90	2.18	2.12
<b>Sensitive</b>	<b>38.15</b>	<b>41.43</b>	<b>38.89</b>
Communication Svcs.	15.41	5.53	5.03
Energy	7.68	2.41	4.38
Industrials	13.39	16.96	15.94
Technology	1.67	16.53	13.54
<b>Defensive</b>	<b>18.16</b>	<b>20.56</b>	<b>24.91</b>
Consumer Defensive	8.78	6.47	8.54
Healthcare	3.97	10.81	12.97
Utilities	5.41	3.28	3.40

### World Regions % 30 Jun 2024



### Market Capitalization Breakdown % 30 Jun 2024



## Fixed Income

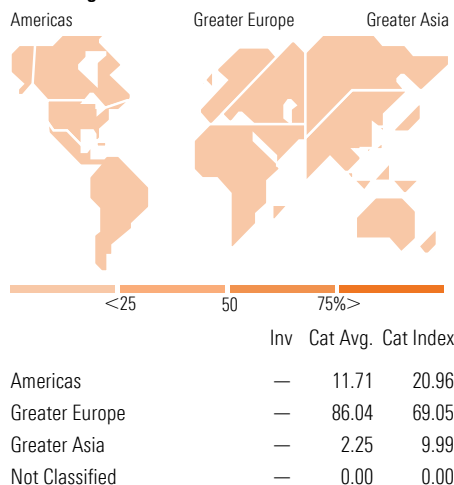
### Credit Quality Surveyed —

	Inv	Cat Avg	Cat Index
<b>Investment Grade</b>	<b>AAA</b>	—	14.1
AA	—	10.9	—
A	—	9.3	—
BBB	—	45.6	—
<b>Total %</b>	<b>—</b>	<b>79.9</b>	<b>—</b>
<b>Below Investment Grade</b>	<b>BB</b>	—	7.8
B	—	0.5	—
Below B	—	0.1	—
Not Rated	—	11.8	—
<b>Total %</b>	<b>—</b>	<b>20.2</b>	<b>—</b>

### Fixed Income Super Sectors 30 Jun 2024

	Inv	Cat Avg	Cat Index
Government	20.4	52.0	76.7
Corporate	0.0	25.6	17.6
Securitized	0.0	1.3	5.6
Municipal	0.0	—	—
Cash & Equivalents	0.0	14.2	0.0
Other	79.6	6.9	0.0

### World Regions %



### Income 30 Jun 2024

30-day SEC Yield %	—	—	—
SEC Yield surveyed	—	—	—
30-day Unsubsidized Yield %	—	—	—
30-day Yield surveyed	—	—	—

### Interest Rate Sensitivity 30 Jun 2024

	Inv	Cat Avg	Cat Index
Avg Effective Duration	—	2.6	—
Avg Effective Maturity	—	5.1	—

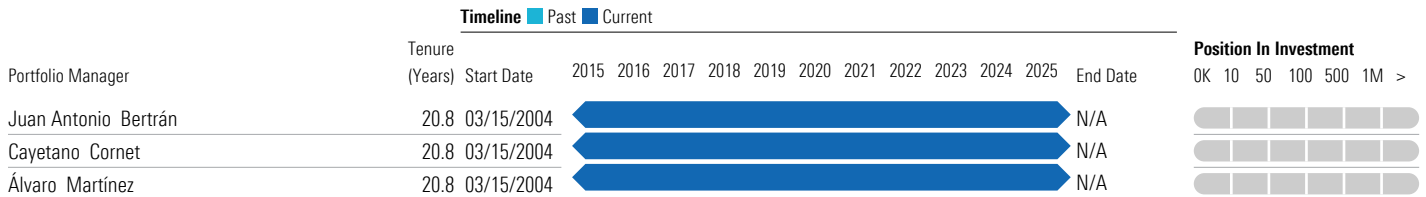
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# Cartesio Y FI

People |  Above Average

<b>Morningstar Category</b> EAA Fund EUR Flexible Allocation	<b>Category Index</b> Morningstar EU Mod Tgt Alloc NR EUR	<b>Prospectus Benchmark</b> MSCI Europe Net TR in EUR
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<b>Management</b>	<b>Inception Date</b> 23 Feb 2004	<b>Number of Mgrs</b> 3	<b>Longest Tenure</b> 20.8 Years	<b>Average Tenure</b> 20.8 Years	<b>Advisor(s)</b> Cartesio Inversiones SGIC	<b>Subadvisor(s)</b> —
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<b>Juan Antonio Bertrán</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 2	<b>Investment AUM</b> 548.682 Mil USD				
<b>Largest Investments Managed</b>	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
Cartesio Y FI	15 Mar 2004 to 09 Jan 2025	1 of 3	216.25	EUR	—	—	5.22	5.31

<b>Cayetano Cornet</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 4	<b>Investment AUM</b> 867.945 Mil USD				
<b>Largest Investments Managed</b>	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
Cartesio Funds Income	13 Jan 2020 to 09 Jan 2025	1 of 3	223.24	EUR	—	—	3.30	0.48
Cartesio Y FI	15 Mar 2004 to 09 Jan 2025	1 of 3	216.25	EUR	—	—	5.22	5.31
Cartesio Funds Equity	13 Jan 2020 to 09 Jan 2025	1 of 3	87.08	EUR	—	—	3.74	3.62

<b>Álvaro Martínez</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 4	<b>Investment AUM</b> 867.945 Mil USD				
<b>Largest Investments Managed</b>	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
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Cartesio Y FI	15 Mar 2004 to 09 Jan 2025	1 of 3	216.25	EUR	—	—	5.22	5.31
Cartesio Funds Equity	13 Jan 2020 to 09 Jan 2025	1 of 3	87.08	EUR	—	—	3.74	3.62

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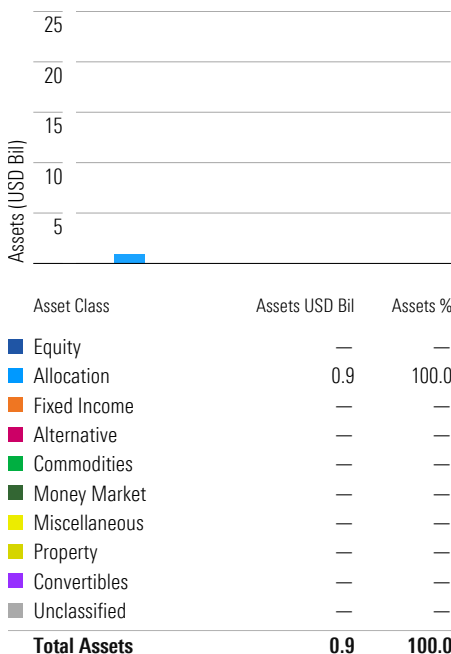
# Cartesio Y FI

Parent | ● Above Average

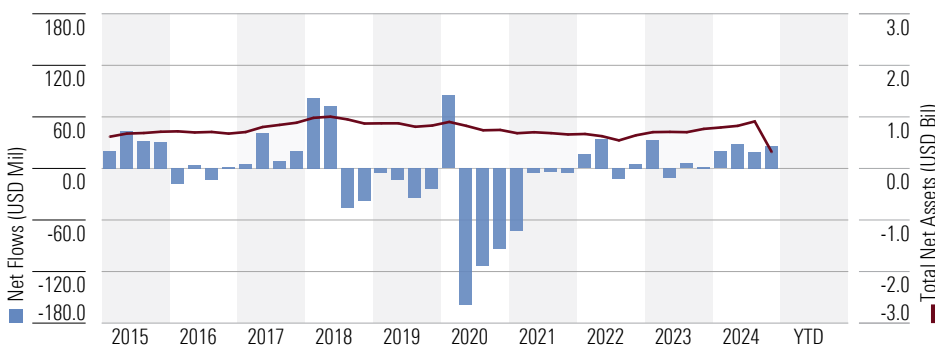
<b>Morningstar Category</b> EAA Fund EUR Flexible Allocation	<b>Category Index</b> Morningstar EU Mod Tgt Alloc NR EUR	<b>Prospectus Benchmark</b> MSCI Europe Net TR in EUR
<b>Firm / Investment Provider</b> Cartesio Inversiones SGIIC	<b>Advisor</b> Cartesio Inversiones SGIIC	<b>Subadvisor</b> —

**Branding Company Breakdowns:** Cartesio Inversiones 30 Nov 2024

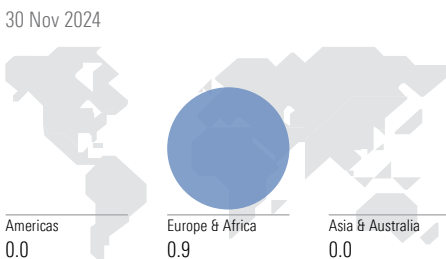
**Global Asset Class Breakdown 30 Nov 2024**



**Global Total Firm Assets and Investment Flows**



**Global Assets By Region, By Domicile USD Bil**



# Cartesio Y FI

## Performance

**Morningstar Category**  
EAA Fund EUR Flexible Allocation

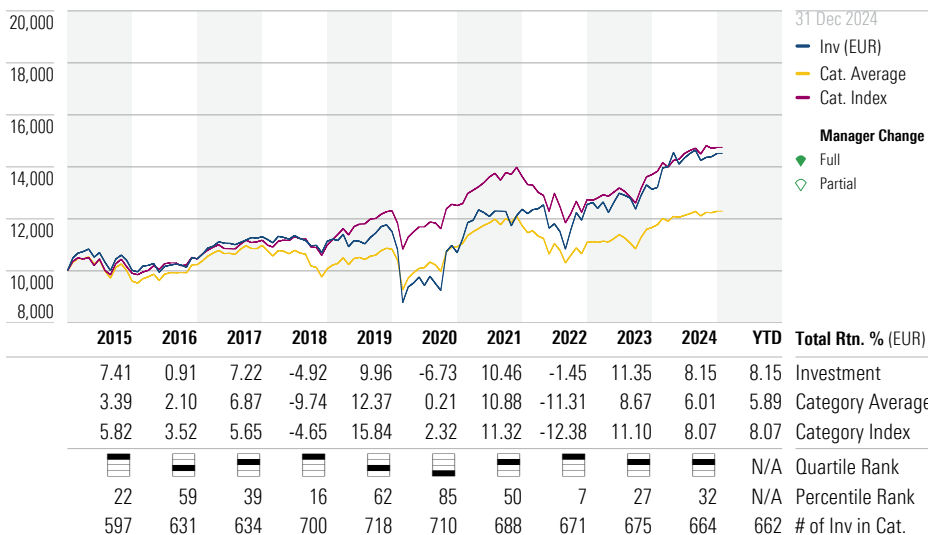
**Category Index**  
Morningstar EU Mod Tgt Alloc NR EUR

**Prospectus Benchmark**  
MSCI Europe Net TR in EUR

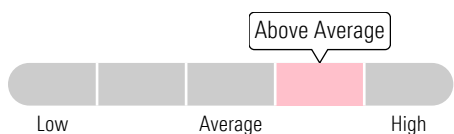
### Morningstar Rating and Risk 31 Dec 2024

Period / Inv in Cat	Total Return %	Morningstar Ret vs Cat	Morningstar Risk vs Cat	Morningstar Rating
3 Years 542	5.87	High	Above Avg	★★★★★
5 Years 476	4.10	Above Avg	Above Avg	★★★
10 Years 269	4.04	Above Avg	Above Avg	★★★
Overall	—	Above Avg	Above Avg	★★★

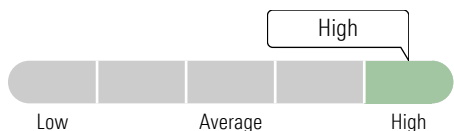
### Growth of \$10,000



### 3-Year Risk vs. Category Avg 31 Dec 2024



### 3-Year Return vs. Category Avg 31 Dec 2024



### 3-Year Market Volatility Measures 31 Dec 2024

	Inv	Cat Avg.	Cat Index
Upside Capture Ratio %	106.66	78.36	—
Downside Capture Ratio %	72.45	85.10	—
<b>Maximum Drawdown %</b>	<b>-13.58</b>	<b>-14.75</b>	<b>-15.28</b>
Drawdown Peak Date	6/1/22	1/1/22	1/1/22
Drawdown Valley Date	9/30/22	9/30/22	9/30/22
Max Drawdown Duration	4 Mo.	9 Mo.	9 Mo.

### Trailing Returns (Annualized) 31 Dec 2024

	Total Ret %	Investor Ret %	% Rank in Cat	Category Ret %	Index Ret %
1 Year	8.15	8.07	32.00	5.89	8.07
3 Years	5.87	5.74	5.00	0.72	1.71
5 Years	4.10	1.69	27.00	2.62	3.69
10 Years	4.04	2.79	28.00	2.85	4.36
Earl Avail*	5.19	—	—	—	—

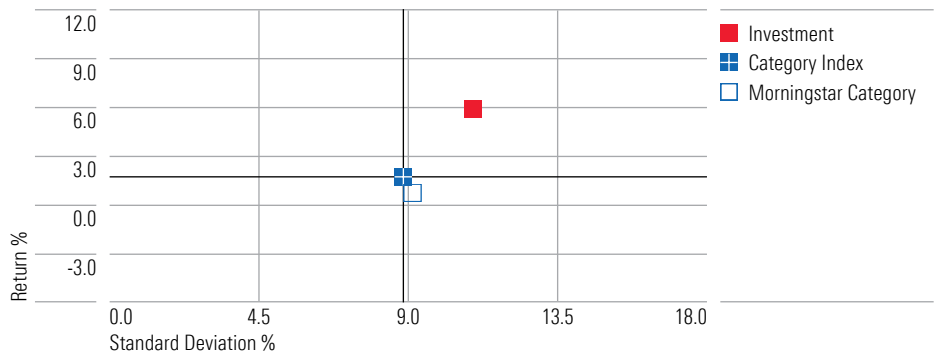
\*Earliest Available as of 23 Feb 2004

### Rolling Return Summary 31 Dec 2024

36-Month Rolling Periods	Quartile	%
215 Observations, 17 Years	5	53
	4	34
	3	8
	2	4

The shading and percentages correspond to how often the strategy returns landed in each category quartile.

### 3-Year Risk vs. Return Scatterplot 31 Dec 2024



### Risk & Return Measures 31 Dec 2024

Trailing	3-Year			5-Year			10-Year		
	Investment	Cat Avg.	Cat Index	Investment	Cat Avg.	Cat Index	Investment	Cat Avg.	Cat Index
Alpha	4.23	-1.08	—	0.00	-0.84	—	-1.02	-1.42	—
Beta	0.97	0.83	—	1.42	0.99	—	1.27	1.03	—
R-Squared	59.89	67.98	—	68.00	71.22	—	68.10	68.90	—
Sharpe Ratio	0.37	-0.07	-0.02	0.27	0.20	0.32	0.36	0.30	0.54
Standard Deviation %	10.96	9.13	8.85	15.73	10.82	9.18	12.08	9.74	7.85

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# Cartesio Y FI

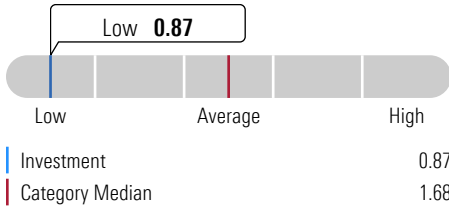
## Price

**Morningstar Category**  
EAA Fund EUR Flexible Allocation

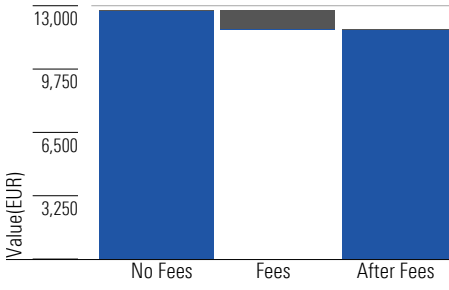
**Category Index**  
Morningstar EU Mod Tgt Alloc NR EUR

**Prospectus Benchmark**  
MSCI Europe Net TR in EUR

### Ongoing Charge 02 Jan 2023



### Cost Illustration (10k; 5% Return; EUR) 02 Jan 2023

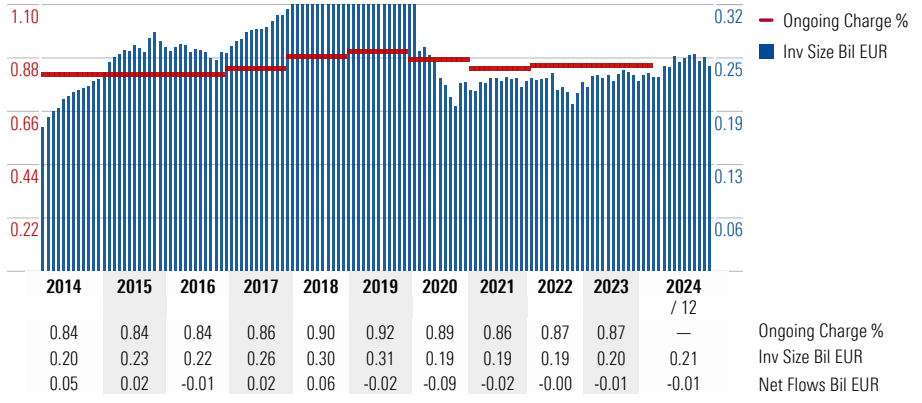


Initial Investment	10,000.00
Expected Market Return w/ No Fees (5%)	12,762.82
Fees	(972.66)

**Expected Market Return After Fees (3.3%) 11,790.16**

Ongoing fees as of 02 Jan 2023. The fees illustrated above do not reflect any additional account-related fees and charges

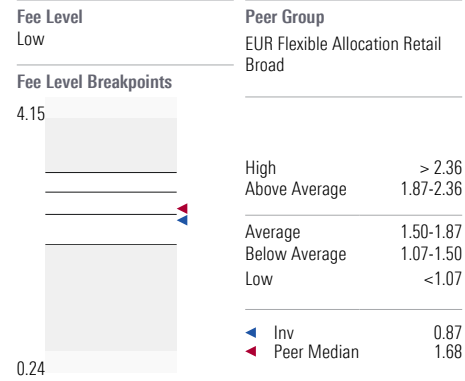
### Expense History 02 Jan 2023



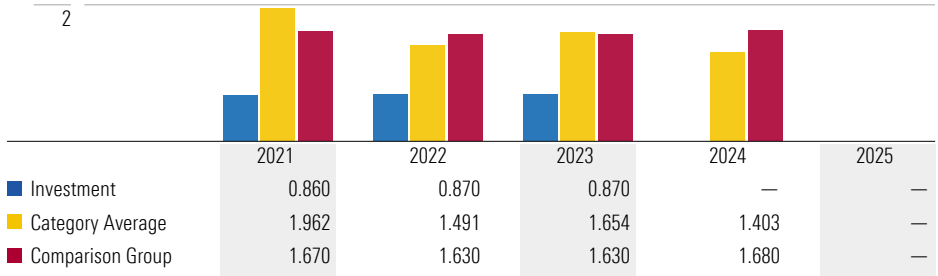
### Expense Breakdown

Ongoing Charge %	%
Ongoing Charge % 01/02/23	0.87
Representative Cost 01/31/25	0.97
Selected Components	%
Max Management Fee	0.75
Performance Fee	7.50
Category Average	—

### Fee Level



### Historical Expense Ratio % 02 Jan 2023



Expense Ratio: Ongoing Charge | Fee Level Comparison Group: EUR Flexible Allocation Retail Broad

### Share Class Information

Investment Name	ISIN	Status	Fee Level	Ongoing Charge %	Max Mgmt Fee	Performance Fee	Minimum Initial Investment	Assets	1-Yr Flow	Currency
Cartesio Y FI	ES0182527038	Open	Low	0.87	0.75	7.50	6,000	216.25 Mil	-9.19 Mil	EUR

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# Appendix

## Historical Medalist Rating —

Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	April 2025	March 2025	Feb 2025	Jan 2025
											 Silver
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	April 2024	March 2024	Feb 2024	Jan 2024
 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	April 2023	March 2023	Feb 2023	Jan 2023
 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver

## Total Firm Assets and Investment Flows 30 Nov 2024

Total Net Assets (USD Bil)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Q1	0.62	0.72	0.71	0.98	0.87	0.90	0.68	0.67	0.70	0.79	—
Q2	0.68	0.70	0.80	1.00	0.88	0.83	0.70	0.63	0.71	0.83	—
Q3	0.69	0.71	0.84	0.95	0.81	0.74	0.68	0.54	0.70	0.91	—
Q4	0.71	0.68	0.89	0.87	0.83	0.75	0.66	0.64	0.77	0.32	—
Net Flows (USD Mil)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Q1	20.40	-17.69	5.17	82.10	-5.45	84.85	-72.80	16.21	32.65	19.65	—
Q2	43.81	4.01	41.46	73.01	-12.99	-159.20	-4.68	33.88	-11.41	28.06	—
Q3	31.89	-13.08	8.16	-45.78	-34.43	-114.00	-4.48	-12.67	5.72	19.53	—
Q4	30.93	1.41	19.99	-38.22	-24.42	-94.07	-5.08	4.69	1.59	25.93	—

# Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit <http://advisor.morningstar.com/familyinfo.asp>

An investment in a money-market vehicle is not insured or guaranteed by the FDIC or any other government agency. The current yield quotation reflects the current earnings of the money market more closely than the total return quotation. Although money markets seek to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in them.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

## Annualized Returns 12-31-2024

Standardized Returns (%)	7-day Yield		1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
	Subsidized	Unsubsidized										
Cartesio Y FI	—	—	8.15	4.10	4.04	5.19	02-23-2004	0.00	0.00	—	—	0.00
<b>Bloomberg US Agg Bond TR USD</b>			<b>1.25</b>	<b>-0.33</b>	<b>1.35</b>	<b>6.50</b>	<b>01-03-1980</b>					
<b>MSCI EAFE NR USD</b>			<b>3.82</b>	<b>4.73</b>	<b>5.20</b>	<b>8.31</b>	<b>03-31-1986</b>					
<b>Morningstar EU Mod Tgt Alloc NR EUR</b>			<b>8.07</b>	<b>3.69</b>	<b>4.36</b>	<b>4.34</b>	<b>06-30-2020</b>					
<b>S&amp;P 500 TR USD</b>			<b>25.02</b>	<b>14.53</b>	<b>13.10</b>	<b>11.12</b>	<b>01-30-1970</b>					
<b>USTREAS T-Bill Auction Ave 3 Mon</b>			<b>5.28</b>	<b>2.63</b>	<b>1.86</b>	<b>3.87</b>	<b>02-28-1941</b>					

## Return after Tax (%)

	On Distribution					On Distribution and Sales of Shares				
	1Yr	5Yr	10Yr	Since Inception	Inception Date	1Yr	5Yr	10Yr	Since Inception	
Cartesio Y FI	—	—	—	—	02-23-2004	—	—	—	—	

## Disclosure Statement

The Managed Investment Report is supplemental sales literature, and therefore must be preceded or accompanied by the investment's current prospectus or an equivalent statement. Please read this information carefully. In all cases, this disclosure statement should accompany the Managed Investment Report. Morningstar is not itself a FINRA-member firm. All data presented is based on the most recent information available to Morningstar as of the release date and may or may not be an accurate reflection of current data for securities included in the fund's portfolio. There is no assurance that the data will remain the same.

Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, collective investment trust funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities. The definition of "managed investment" includes funds, variable annuity or variable life subaccounts, separate accounts, and models.

Prior to 2016, Morningstar's methodology evaluated open end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

### Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publicly offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market,

such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net asset value minus a deferred sales charge and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

### Comparison of Other Managed Investment Types

Variable annuities are tax-deferred investments structured to convert a sum of money into a series of payments over time. Variable annuity policies have limitations and are not viewed as short-term liquid investments. An insurance company's fulfillment of a commitment to pay a minimum death benefit, a schedule of payments, a fixed investment account guaranteed by the insurance company, or another form of guarantee depends on the claims-paying ability of the issuing insurance company. Any such guarantee does not affect or apply to the investment return or principal value of the separate account and its subaccount. The financial ratings quoted for an insurance company do not apply to the separate account and its subaccount. The insurance company offering a variable contract will charge several fees to investors, including annual contract charges that compensate the insurance company for the cost of maintain-



ing and administering the contract, mortality and expense risk (M&E Risk) charges based on a percentage of a sub-account's assets to cover costs associated with mortality and expense risk, and administration fees that are based on a percentage of a subaccount's assets to cover the costs involved in offering and administering the subaccount. A variable annuity investor will also be charged a front-end load by the insurance company on their initial contribution, ongoing fees related to the management of the fund, and surrender charges if the investor makes a withdrawal prior to a specified time. If the variable annuity subaccount is invested in a money-market fund, the money market fund is not FDIC-insured, may lose money, and is not guaranteed by a bank or other financial institution.

Variable life insurance is a cash-value life insurance that has a variable cash value and/or death benefit depending on the investment performance of the subaccount into which premium payments are invested. Unlike traditional life insurance, variable life insurance has inherent risks associated with it, including market volatility, and is not viewed as a short-term liquid investment. For more information on a variable life product, including each sub-account, please read the current prospectus. Please note, the financial ratings noted on the report are quoted for an insurance company and do not apply to the separate account and its subaccount.

A separate account is a portfolio of securities (such as stocks, bonds, and cash) that follows a specified investment strategy and is managed by an investment professional. The securities in the portfolio are directly owned by the separate account's owner. Separate accounts are unregistered investment vehicles; therefore, they do not have the same performance and holding reporting responsibilities that registered securities have. Separate account performance data is reported to Morningstar from the investment manager as a composite of similarly managed portfolios. As such, investors in the same separate account may have slightly different portfolio holdings because each investor has customized account needs, tax considerations and security preferences. The method for calculating composite returns can vary. The composite performance for each separate account manager may differ from actual returns in specific client accounts during the same period for a number of reasons. Different separate account managers may use different methods in constructing or computing performance figures. Thus, performance and risk figures for different separate account managers may not be fully comparable to each other. Likewise, performance and risk information of certain separate account managers may include only composites of larger accounts, which may or may not have more holdings, different diversification, different trading patterns and different performance than smaller accounts with the same strategy. Finally, composite performance of the separate account offered by the money manager may or may not reflect the reinvestment of dividends and capital gains. Gross returns are collected on a monthly and quarterly basis for separate accounts and com-

mingled pools. This information is collected directly from the asset management firm running the product(s). Morningstar calculates total returns, using the raw data (gross monthly and quarterly returns), collected from these asset management firms. The performance data reported by the separate account managers will not represent actual performance net of management fees, brokerage commissions or other expenses. Management fees as well as other expenses a client may incur will reduce individual returns for that client. Because fees are deducted regularly, the compounding effect will increase the impact of the fee deduction on gross account performance by a greater percentage than that of the annual fee charged. For example, if an account is charged a 1% management fee per year and has gross performance of 12% during that same period, the compounding effect of the quarterly fee assessments will result in an actual return of approximately 10.9%. Clients should refer to the disclosure document of the separate account manager and their advisor for specific information regarding fees and expenses. The analysis in this report may be based, in part, on adjusted historical returns for periods prior to an insurance group separate account's (IGSA's) actual inception. When pre-inception data are presented in the report, the header at the top of the report will indicate this and the affected data elements will be displayed in italics. These calculated returns reflect the historical performance of the oldest share class of the underlying fund, adjusted to reflect the management fees of the current IGSA. While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of an IGSA based on the underlying fund's performance, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. These adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the IGSA itself. Morningstar % Rank within Morningstar Category does not account for a separate account's sales charge (if applicable).

A model, as defined by Morningstar, is a portfolio of securities (such as mutual funds, ETFs, and cash) created by a model manager (such as a broker-dealer, investment adviser, or asset manager) that is distributed through centralized platforms to various types of investors or financial professionals. Models are not created with regard to the investment objectives, financial situation, or particular needs of any specific investor and therefore will not be suitable for everyone. A model is intended to provide information to assist investors in making their own investment decisions; investors must exercise their own independent judgment as to the suitability of a model and its holdings in light of their own investment objectives, experience, taxation status, and financial position. Model managers do not guarantee the performance of a model or its underlying holdings, or that a model's objective will be achieved. An investor using a model can incur a loss. Unless the model manager and an investor enter in an agreement stating otherwise, the model manager is not responsible for an investor's decision to invest in accord-

ance with a model, the suitability of the model for a specific investor, or trading decisions, and does not manage or have access to the investor account. Instead, the investor (or their financial professional) chooses whether and how to implement the model and is ultimately responsible for related investment decisions. If an investor chooses to invest in accordance with a model, the securities in the account are directly owned by the investor.

A collective investment trust (CIT) may also be called a commingled or collective fund. CITs are tax-exempt, pooled investment vehicles maintained by a bank or trust company exclusively for qualified plans, including 401(k)s, and certain types of government plans. CITs are unregistered investment vehicles subject to banking regulations of the Office of the Comptroller of the Currency (OCC), which means they are typically less expensive than other investment options due to lower marketing, overhead, and compliance-related costs. CITs are not available to the general public but are managed only for specific retirement plans.

### Sustainalytics

Sustainalytics is an environmental, social, and governance and corporate governance research, ratings, and analysis firm. Morningstar acquired Sustainalytics in 2020. Sustainalytics provides ESG scores on companies, which are evaluated within global industry peer groups, and tracks and categorizes ESG-related controversial incidents on companies. Morningstar uses Sustainalytics' company level ESG analytics to calculate ratings for managed products and indexes using Morningstar's portfolio holdings database.

### Performance

The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Managed investment portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

Morningstar calculates after-tax returns using the highest applicable federal marginal income tax rate plus the investment income tax and Medicare surcharge. As of 2018, this rate is 37% plus 3.8% investment income plus 0.9% Medicare surcharge, or 41.7%. This rate changes periodically in accordance with changes in federal law.

### Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception re-

turns please see the Morningstar Extended Performance Methodology.

**When pre-inception data is presented in the report, the header at the top of the report will indicate this. In addition, the pre-inception data included in the report will appear in italics.**

While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of newer share classes of a fund, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. For example, the fee structures of a retail share class will vary from that of an institutional share class, as retail shares tend to have higher operating expenses and sales charges. These adjusted historical returns are not actual returns. The underlying investments in the share classes used to calculate the pre-performance string will likely vary from the underlying investments held in the fund after inception. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the fund itself.

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#### Economic Moat

An economic moat is a structural feature that Morningstar believes positions a firm to sustain excess profits over a long period of time, with excess profits defined as returns on invested capital above our estimate of a firm's cost of capital. The economic moat rating is not an indicator of the investment performance of the investment highlighted in this report. Narrow moat companies are those Morningstar believes are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which Morningstar believes excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. Firms without a moat, including those that have a substantial threat of value destruction related risks related to ESG, industry disruption, financial health, or other idiosyncratic issues, are more susceptible to competition. Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

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## Data Definitions

### 12 Month Yield %

12 Month Yield % is derived by summing the trailing 12-months' income distributions and dividing the sum by the last month's ending NAV, plus any capital gains distributed over the same period. Income refers only to interest payments from fixed-income securities and dividend payoffs from common stocks.

### 12b1 Expense %

A 12b-1 fee is a fee used to pay for a fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

### 30-Day SEC Yield

The 30-day SEC Yield is a calculation based on a 30-day period ending on the last day of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period. The figure listed lags by one month. When a dash appears, the yield available is more than 30 days old. This information is taken from fund surveys.

### 30-Day Unsubsidized Yield

The 30-day Unsubsidized Yield is computed under a SEC standardized formula based on net income earned over the past 30 days. It excludes contractual expense reimbursements, resulting in a lower yield.

### Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

### Analyst-Driven %

The Analyst-Driven % data point displays the weighted percentage of a vehicle's pillar ratings assigned directly or indirectly by analysts. For example, if the People and Parent ratings are assigned directly or indirectly by analysts but the Process rating is assigned algorithmically, the Analyst-Driven % for an actively managed vehicle would disclose that 55% of the pillar weight was assigned by analysts and the Analyst-Driven % for a passively managed vehicle would disclose that 20% of the pillar weight was assigned by analysts.

### Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the managed investment against its three-year average,

category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the managed investment's managers are buying and how they are positioning the managed investment's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the managed investment's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most managed investment portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of managed investment holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of managed investment holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the managed investment only.

### Asset Class Breakdown

The asset class breakdown section shows the amount and percentage of assets by asset class for managed investments associated with a Parent Company.

### Attribution Statistics

Total attribution, or excess return, is the difference between the managed investment and category index

performance figures. Morningstar separates a managed investment's total attribution into several factors known as attribution effects. The primary effects are: sector weightings, country weightings, security selection, and fees. Sector weightings effect refers to the portion of a managed investment's value- add attributable to the managed investment manager's decision on how much to allocate to each Morningstar Global Equity Sector (a managed investment manager's decision to have an overweighting or an underweighting in certain sectors compared with the benchmark). For managed investments in the international-stock categories, country weightings effect is provided to measure the impact of a managed investment's country allocation as a secondary decision, based on the Morningstar Country classification. In this case, a managed investment manager's decision to have an overweighting or an underweighting in certain countries within each sector is evaluated. Security selection effect represents the portion of performance attributable to the managed investment manager's stock- picking skill. Fee effect represents the impact of managed investment expense ratio on excess return. Morningstar attribution analysis primarily focuses on these four attribution effects. There are two remaining effects, known as interaction and residual, in order for the total attribution to be the sum of the effects. The interaction effect, as its name suggests, is the interaction between the combination of sector weightings and country weightings relative to the security selection effects, and it does not represent an explicit decision of the managed investment manager and is thus not considered a primary focus of Morningstar attribution analysis. The residual effect is the portion of return that cannot be explained by the equity and cash- holdings composition at the beginning of the analysis period.

If a managed investment holds another managed investment as part of its holdings (such as when a mutual fund holds an exchange-traded fund or another mutual fund), the calculation will drill down to the individual security holdings of the underlying managed investment for analysis. The following securities are excluded from the attribution analysis, and the remaining holdings are rescaled to 100% when performing attribution analysis.

- Nonequity securities (except cash, which is included as a standalone sector).
- Unidentified or unrecognized securities. These are securities Morningstar is not able to identify.
- Unclassified securities. These are securities that are missing sector or country classification.
- Missing performance. These are securities that are missing returns for the month; they are excluded from that monthly attribution calculation.

Ranking is provided for three-year attribution statistics. Each managed investment is ranked against its peers in the same Morningstar Category.

#### Average Effective Duration

Average Effective Duration is a weighted average of the effective durations of fixed income and certain derivative

holdings. The portfolio average is computed by weighting each holding effective duration by the market value of the holding (notional value for derivatives) and then averaging by the sum of holding values. Effective duration is a measure of price elasticity relative to change in yield which accounts for the impact of redemption options on return of principal. It is expressed as a factor which represents the percentage change in value that is expected for a specific unit change in yield.

#### Average Effective Maturity

Average Effective Maturity is a weighted average of the length of time, measured in years, until return of principal can be reasonably expected for debt securities, and is computed by weighting each holding effective maturity term by the market value of the holding and then averaging by the sum of holding values. The effective maturity may be the nominal maturity date, the next put date, the average life of a sinking fund, the weighted average life of an amortizing prepayment, or a proxy maturity date for perpetual securities. NOTE: Effective Maturity is measured only for holdings which have a principal value or reference a security with a principal value and exclude many derivatives.

#### Average Market Capitalization

Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

#### Average Weighted Coupon

Average weighted Coupon is the weighted average of the rates of interest paid of the fixed income and certain derivative securities in a portfolio. The average is computed by weighting each holding price by the market value of the holding and then averaging by the sum of holding values. For securities which pay no periodic interest but accrete in value at an assigned interest rate, (e.g. zero coupons), the value of the coupon is 0%. For non-periodic instruments which pay interest at maturity, (e.g. short-term bills/notes), the interest rate at issuance is assigned as the coupon rate.

#### Beta

Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

#### Book Value Growth %

Book value is the estimation of the book value growth for a stock. This is calculated by averaging the book-value growth rate per share of the stock for up to the previous four years. A managed investment's book value % is calculated by taking an asset-weighted average of the book value of all the stocks in the portfolio.

#### Cash Flow Growth %

Cash Flow Growth is the estimation of the cash flow growth for a stock. This is calculated by averaging the cash flow growth rate per share of the stock for up to the previous four years. A managed investment's cash flow

growth % is calculated by taking a share-weighted average of the cash flow of all the stocks in its portfolio.

#### Cash Return %

Cash return is calculated by dividing the company's free cash flow by its enterprise value, or market capitalization, plus net debt. This number tells you what cash return you would get if you bought the entire company, including its debt.

#### Company ESG Score Description

The ESG Score Description ranks the company-level ESG Risk Score for companies against their Sustainability peer group. The ESG Score Description is depicted as a range from Negligible to Severe, where Negligible equals a company that scores well below average relative to its peer group and Severe equals a company that scores well above average relative to its peer group. Breakpoints for the score description are established annually by determining how company scores fall into the following ranges within a peer group:

Negligible	Highest 5%
Low	Next 11%
Medium	Next 68%
High	Next 11%
Severe	Lowest 5%

Each month, a company's ESG Risk Score is compared to its peer group breakpoints and assigned a company score description. Morningstar lists the ESG Score Description for the largest holdings underlying a managed investment's portfolio.

#### Cost Illustration

The cost illustration chart provides an example of the fees you would pay over a one-, five-, or ten-year holding period for a \$10,000 investment in the managed investment, and assumes you redeem all of your shares at the end of the period. The example assumes that investment earns a 5.00% return, and that the investment's operating expenses remain the same. Fees may be paid by you in a variety of ways: when you purchase a managed investment; by direct withdrawal from your account during the time you own a managed investment; or when you sell the managed investment.

The cost illustration is designed to provide information to help you assess the importance of fees and expenses, and to understand how changes in your holding period may impact your investment. Assumptions and calculations applied in this analysis are critical to the outcomes shown in the cost illustration.

The fee projection analysis was generated using a managed investment, investment amount, and hypothetical rate of return. It is important that these assumptions be accurate estimations, as they are key inputs that impact the fee projection analysis. Applicable front-end charges were assessed at the point of purchase and deferred charges and redemption fees, when applicable, were assessed at the point of sale. The

analysis does not account for reinvestment of any applicable dividends or capital gains.

The information generated in the cost illustration is hypothetical in nature and assumes the managed investment's returns and expenses remain the same each year. Because returns and expenses vary over time, an investor's actual returns and expenses may be higher or lower. The hypothetical rate of return used in this analysis should not be considered indicative of future results. Actual results may differ substantially from that shown here. Principal value and investment return will fluctuate, so that your shares of securities, when redeemed, may be worth more or less than your original investment, and may include a possible loss of your principal.

Morningstar uses the Prospectus Net Expense Ratio in its ongoing fees, fee level, and ranking calculations for most funds. However, the Annual Report Net Expense Ratio is used for closed-end funds because prospectuses are published infrequently.

Purchase fees and expenses are those costs incurred by an investor when they buy shares of a fund. Such fees and expenses may include front-end loads and/or trading commissions.

Redemption fees and expenses are those costs incurred by an investor when they sell shares of a fund.

Ongoing fees and expenses are those costs an investor incurs while holding shares of a fund. Such expenses may include asset-based fees and operating and management fees.

### Credit Quality

The credit quality breakdowns are shown for corporate bond holdings and depict the quality of bonds in the underlying portfolio. The report shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a NRSRO. Bonds not rated by an NRSRO are included in the not-rated category.

### Credit Quality Breakdown

Displays the weighted distribution of holdings by credit rating symbol categories. The percentage for each rating category is computed by weighting each holding's credit rating by the market value of the holding and then averaging by the sum of holding values. For holdings that have more than one credit rating the ratings will be combined and an average rating for the holding will be computed. The distribution is based upon available credit ratings from recognized credit rating agencies such as a Nationally Recognized Statistical Rating Organization (NRSRO) in the U.S. (For a list of all NRSROs, please visit <https://www.sec.gov/ocr/ocr-current-nrsros.html>) The categories are based on the rating scale produced by Morningstar Credit Ratings, LLC and range from AAA, indicating the highest level of credit quality, to D, indicating a security which has defaulted on its payment obligations. Holdings for which no credit rating is available are assigned to a "Not Rated", or "NR" category. Morningstar

calculates Long, Short, and Net values.

### Current Yield

Current yield is derived by taking the ratio of a bond's annual interest payment to the current price.

### Data Coverage %

The Data Coverage % data point is a summary metric describing the level of data completeness used to generate the overall rating. If the pillar is assigned directly or indirectly by analysts, the pillar has complete data availability, as no model was used to estimate the pillar score. If the pillar is assigned directly by algorithm, Morningstar counts the number of data points feeding both the positive and negative models and counts whether the vehicle has strategy-specific data available. A simple percentage is calculated per pillar. The overall data coverage % is then scaled by pillar weights.

### D/C Ratio

The debt-to-capital ratio for a managed investment's underlying stock holdings is calculated by dividing each security's long-term debt by its total capitalization (the sum of common equity plus preferred equity and long-term debt) and is a measure of the company's financial leverage.

All else being equal, stocks with high D/C ratios are generally riskier than those with low D/C ratios. Note that debt-to-capital figures can be misleading owing to accounting conventions.

Because balance sheets are based on historic cost accounting, they may bear little resemblance to current market values. Morningstar aggregates debt-to-capital figures for managed investments using a median methodology, whereby domestic stocks are ordered from highest to lowest based on their D/C ratios. One adds up the asset weighting of each holding until the total is equal to or greater than half of the total weighting of all domestic stocks in the managed investment. The debt/total cap for that stock is then used to represent the debt/total cap of the total portfolio.

### Deferred Load %

The back-end sales charge or deferred load is imposed when an investor redeems shares of a managed investment. The percentage of the load charged generally declines the longer the managed investment's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

### Dividend Yield %

The dividends per share of the company over the trailing one-year period as a percentage of the current stock price.

### Downside Capture Ratio %

Downside Capture Ratio measures a managed investment's performance in down markets. A down market is defined as those periods (months or quarters) in which market return is less than 0. In essence, it tells you what percentage of the down market was captured by

the managed investment. For example, if the ratio is 110%, the managed investment captured 110% of the down market and therefore underperformed the market on the downside.

### ESG Risk Score %

Sustainalytics' ESG Risk Ratings are designed to help investors identify and understand financially material ESG risks at the security and portfolio level. The ESG Risk Ratings are based on a two-dimensional materiality framework that measures a company's exposure to industry-specific material risks and how well a company is managing those risks. ESG Risk Ratings are categorized across five risk levels: negligible, low, medium, high and severe. Ratings scale is from 0-100, with 100 being the most severe.

### Expense Ratio %

The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

### Fee Level

Morningstar Fee Level puts the expenses of the managed investment in context by showing the range of fees charged by its peers. An overall Fee Level for the managed investment is shown, along with breakpoints for five quintiles of Fee Levels for the managed investment's peer group. Morningstar defines Fee Level peer groups by combining some categories with similar expected expenses, such as large value, large blend, and large growth, then segmenting the category group by distribution class of front-load, deferred-load, level-load, no-load, or institutional to provide more-relevant fee comparisons.

### Fee Quintile Breakdown

The fee quintile breakdown section sums the percentage of share classes associated with a Parent Company that has a Morningstar Fee Level—Distribution of Low, Below Average, Average, Above Average, and High.

### Financial Health

One of the three quantitative grades that Morningstar assigns to each stock as a quick way to get a handle on its fundamentals. To get a good grade in this area, a company should have low financial leverage (assets/equity), high cash-flow coverage (total cash flow/long-term debt), and a high cash position (cash/assets) relative to its sector.

### Free Cash Flow Yield

Equal to operating cash flow minus capital spending. Free

cash flow represents the cash a company has left over after investing in the growth of its business. Young, aggressive companies often have negative free cash flow, because they're investing heavily in their futures. As companies mature, though, they should start generating free cash flow.

#### Front-end Load %

The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

#### Growth

The Morningstar Growth Grade is based on the trend in revenue per share using data from the past five years. For the purpose of calculating revenue per share we use the past five years' revenue figures and corresponding yearend fully diluted shares outstanding; if year-end fully diluted shares outstanding is not available, we calculate this figure by dividing the company's reported net income applicable to common shareholders by the reported fully diluted earnings per share. A company must have a minimum of four consecutive years of positive and non-zero revenue, including the latest fiscal year, to qualify for a grade.

In calculating the revenue per share growth rate, we calculate the slope of the regression line of historical revenue per share. We then divide the slope of the regression line by the arithmetic average of historical revenue per share figures. The result of the regression is a normalized historical increase or decrease in the rate of growth for sales per share. We then calculate a z-score by subtracting the universe mean revenue growth from the company's revenue growth and dividing by the standard deviation of the universe's growth rates.

Stocks are sorted based on the z-score of their revenue per share growth rate calculated above, from the most negative z-score to the most positive z-score. Stocks are then ranked based on their z-score from 1 to the total number of qualified stocks. We assign grades based on this ranking.

#### Growth of 10,000

For managed investments, this graph compares the growth of an investment of 10,000 (in the base currency of the managed investment) with that of an index and/or with that of the average for all managed investments in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A managed investment's portfolio may differ significantly from the securities in the

index. The index is chosen by Morningstar.

#### Historical Earnings %

The historical earnings % is an estimation of the historical earnings growth for a stock. This is calculated by averaging the earnings-growth rate per share of the stock for up to the previous four years. A managed investment's historical earnings % is calculated by taking an asset-weighted average of the historical earnings of all the stocks in the portfolio.

#### Index Return %

Index Return % measures the relevant index's annualized return for a specified time period.

#### Long-Term Earnings Growth %

Long-Term Earnings Growth is the estimation of the long-term earnings growth forecast of a stock. This is collected as a third-party estimate. A managed investment's long-term earnings % is calculated by taking an asset-weighted average of the long-term earnings of all the stocks in the portfolio.

#### Manager Ownership

Manager ownership sums the percentage of assets in managed investments with maximum manager ownership levels of more than \$1 million, \$500,001 to \$1 million, \$100,001 to \$500,000, \$50,001 to \$100,000, \$10,001 to \$50,000, \$1 to \$10,000, and \$0, as well as no data on manager ownership.

#### Manager Tenure

Manager tenure sums the percentage of assets in managed investments with longest-tenured manager stays of 0-3 years, 3-6 years, 6-9 years, 9-12 years, 12-15 years, and more than 15 years.

#### Management Fees %

The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

#### Maximum Drawdown %

Maximum Drawdown measures the peak-to-trough decline during a specific record period of a managed investment. It is usually quoted as the percentage between the peak and trough.

#### Morningstar Category

Morningstar Category is assigned by placing managed investments into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a managed investment's prospectus may not be sufficiently detailed for our proprietary classification methodology. Managed investments are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the managed investment is new

and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

#### Morningstar Economic Moat

An economic moat is a structural feature that Morningstar believes positions a firm to sustain excess profits over a long period of time, with excess profits defined as returns on invested capital above our estimate of a firm's cost of capital. The economic moat rating is not an indicator of the investment performance of the investment highlighted in this report. Narrow moat companies are those Morningstar believes are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which Morningstar believes excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. Firms without a moat, including those that have a substantial threat of value destruction related risks related to ESG, industry disruption, financial health, or other idiosyncratic issues, are more susceptible to competition. Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

#### Morningstar Equity Style Box™

The Morningstar Style Box™ reveals a managed investment's investment strategy as of the date noted on this report. For equity managed investments, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened cell in the style box indicates the weighted average style of the portfolio.

#### Morningstar ESG Commitment Level

The Morningstar ESG Commitment Level is the summary expression of our analysts' opinion of the strength of the ESG investment program at the asset-manager level.

The date shown next to the Morningstar ESG Commitment Level is the date on which the Morningstar Manager Research analyst assigned or reaffirmed the current assessment for the managed investment based on the analyst's latest review and research report for the managed investment. The Morningstar ESG Commitment Level is reevaluated at least every 18 months.

The Morningstar ESG Commitment Level is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with the U.S. Securities and Exchange Commission.

The Morningstar ESG Commitment Level scale is Leader, Advanced, Basic, and Low and is based on our analysts' evaluation of a firm's ESG philosophy and process, resources, and active ownership.

For more detailed information about Morningstar ESG Commitment Level, including its methodology, please go to

<http://global.morningstar.com/equitydisclosures>

The Morningstar ESG Commitment Level (i) should not be used as the sole basis in evaluating an investment product, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the investment product.

### **Morningstar Fixed Income Style Box™**

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

For portfolios holding fixed-income investments, a Fixed Income Style Box is calculated. The vertical axis shows the credit quality based on credit ratings and the horizontal axis shows interest-rate sensitivity as measured by effective duration. There are three credit categories- "High", "Medium", and "Low; and there are three interest rate sensitivity categories- "Limited", "Moderate", and "Extensive" resulting in nine possible combinations. As in the Equity Style Box the combination of credit and interest rate sensitivity for a portfolio is represented by a darkened cell in the matrix.

Morningstar uses credit rating information from credit rating agencies (CRA's) that have been designated Nationally Recognized Statistical Rating Organizations (NRSRO's) by the Securities and Exchange Commission (SEC) in the United States. For a list of all NRSROs, please visit <https://www.sec.gov/ocr/ocr-learn-nrsros.html> Additionally, Morningstar will use credit ratings from CRA's which have been recognized by foreign regulatory institutions that are deemed the equivalent of the NRSRO designation.

To determine the rating applicable to a holding and the subsequent holding weighted value of a portfolio two methods may be employed. First is a common methodology approach where if a case exists such that two rating organizations/ agencies have rated a holding, the lower rating of the two should be applied; if three or more CRA's have rated a holding the median rating should be applied, and in cases where there are more than two ratings and a median rating cannot be determined the lower of the two middle ratings should be applied. Alternatively, if there is more than one rating available an average can be calculated from all and applied.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the managed investment. Credit ratings for any security held in a portfolio may change over time.

Morningstar uses the credit rating information to calculate a weighted-average credit quality value for the portfolio. This value is based only upon those holdings

which are considered to be classified as "fixed income", such as government, corporate, or securitized issues. Other types of holdings such as equities and many, though not all, types of derivatives are excluded. The weighted-average credit quality value is represented by a rating symbol which corresponds to the long-term rating symbol schemas employed by most CRA's. Note that this value is not explicitly published but instead serves as an input in the Style Box calculation. This symbol is then used to map to a Style Box credit quality category of "low," "medium," or "high". Managed investments with a "low" credit quality category are those whose weighted-average credit quality is determined to be equivalent to the commonly used High Yield classification, meaning a rating below "BBB", portfolios assigned to the "high" credit category have either a "AAA" or "AA+" average credit quality value, while "medium" are those with an average rating of "AA" inclusive to "BBB-". It is expected and intended that the majority of portfolios will be assigned a credit category of "medium".

For assignment to an interest-rate sensitivity category Morningstar uses the average effective duration of the portfolio. From this value there are three distinct methodologies employed to determine assignment to category. Portfolios which are assigned to Morningstar municipal-bond categories employ static breakpoints between categories. These breakpoints are "Limited" equal to 4.5 years or less, "Moderate" equal to 4.5 years to less than 7 years, and "Extensive" equal to more than 7 years. For portfolios assigned to Morningstar categories other than U.S. Taxable, including all domiciled outside the United States, static duration breakpoints are also used. The values differ from the municipal category values; "Limited" equals less than or equal to 3.5 years, "Moderate" equals greater than 3.5 years but less than or equal to 6 years, and "Extensive" is assigned to portfolios with effective durations of more than 6 years.

Note: Interest-rate sensitivity for non-U.S. domiciled portfolios (excluding those in Morningstar convertible categories) may be assigned using average modified duration when average effective duration is not available.

For portfolios Morningstar classifies as U.S Taxable Fixed-Income, interest-rate sensitivity category assignment is based on the effective duration of the Morningstar Core Bond Index (MCBI). The classification assignment is dynamically determined relative to the benchmark index value. A "Limited" category will be assigned to portfolios whose average effective duration is between 25% to 75% of MCBI average effective duration, where the average effective duration is between 75% to 125% of the MCBI the portfolio will be classified as "Moderate", and those portfolios with an average effective duration value 125% or greater of the average effective duration of the MCBI will be classified as "Extensive".

### **Morningstar Global Category**

Morningstar Global Categories are peer groups for managed portfolios domiciled anywhere in the world. The Global Category is assigned by placing managed

investments into peer groups based on the characteristics of their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a managed investment's prospectus may not be sufficiently detailed for our proprietary classification methodology. Managed investments are placed in a category based on their portfolio statistics and compositions over the past three years. If the managed investment is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent global category assignment. Global categories may be changed based on recent changes to the portfolio. Not all managed investments are available to purchase within your country. Returns- based analysis may not be valid in some circumstances due to the impact of currencies.

### **Morningstar Historical Sustainability Score**

The Historical Sustainability Score is an exponential weighted moving average of the Portfolio Sustainability Scores over the past 12 months. The process rescales the current Portfolio Sustainability Score to reflect the consistency of the scores. The Historical Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk on a consistent historical basis.

### **Morningstar Investor Return**

Morningstar Investor Return (also known as "dollar-weighted return") measures how the average investor fared in a fund over a period of time. Investor Return incorporates the impact of cash inflows and outflows from purchases and sales and the growth in fund assets. In contrast to total returns, Investor Returns account for all cash flows into and out of the fund to measure how the average investor performed over time. Investor Return is calculated in a similar manner as internal rate of return. Investor Return measures the compound growth rate in the value of all dollars invested in the fund over the evaluation period. Investor Return is the growth rate that will link the beginning total net assets plus all intermediate cash flows to the ending total net assets.

### **Morningstar Medalist Rating™**

The Morningstar Medalist Rating is the summary expression of Morningstar's forward-looking analysis of investment strategies as offered via specific vehicles using a rating scale of Gold, Silver, Bronze, Neutral, and Negative. The Medalist Ratings indicate which investments Morningstar believes are likely to outperform a relevant index or peer group average on a risk-adjusted basis over time. Investment products are evaluated on three key pillars (People, Parent, and Process) which, when coupled with a fee assessment, forms the basis for Morningstar's conviction in those products' investment merits and determines the Medalist Rating they're assigned. Pillar ratings take the form of Low, Below Average, Average, Above Average, and High. Pillars may be evaluated via an analyst's qualitative assessment (either directly to a vehicle the analyst covers or indirectly when the pillar ratings of a covered vehicle are mapped



to a related uncovered vehicle) or using algorithmic techniques. Vehicles are sorted by their expected performance into rating groups defined by their Morningstar Category and their active or passive status. When analysts directly cover a vehicle, they assign the three pillar ratings based on their qualitative assessment, subject to the oversight of the Analyst Rating Committee, and monitor and reevaluate them at least every 14 months. When the vehicles are covered either indirectly by analysts or by algorithm, the ratings are assigned monthly. For more detailed information about the Medalist Ratings, including their methodology, please go to

<http://global.morningstar.com/managerdisclosures>

The Morningstar Medalist Ratings are not statements of fact, nor are they credit or risk ratings. The Morningstar Medalist Rating (i) should not be used as the sole basis in evaluating an investment product, (ii) involves unknown risks and uncertainties which may cause expectations not to occur or to differ significantly from what was expected, (iii) are not guaranteed to be based on complete or accurate assumptions or models when determined algorithmically, (iv) involve the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rates, exchange rate changes, and/or changes in political and social conditions, and (v) should not be considered an offer or solicitation to buy or sell the investment product. A change in the fundamental factors underlying the Morningstar Medalist Rating can mean that the rating is subsequently no longer accurate.

Analysts do not have any other material conflicts of interest at the time of publication. Users wishing to obtain further information should contact their local Morningstar office or refer to the Analyst Conflicts of Interest and Other Disclosures for North America, EMEA, or APAC at:

<http://global.morningstar.com/managerdisclosures>

under Section "Methodology Documents and Disclosures".

### Morningstar Medalist Rating Breakdown

For share classes associated with this parent company and have a Morningstar Medalist Rating, this is the Morningstar Medalist Rating breakdown, based on Asset %. To give investors a sense of the number of share classes analyzed, we're also providing the total number of share classes rated.

### Morningstar Ownership Zone

The Morningstar Ownership Zone provides a graphic representation of the size and investment style of long stocks in managed investment's portfolio. The Ownership Zone is derived by plotting each stock in the portfolio within the Morningstar Style Box™. The Ownership Zone is the shaded area that represents 75% of the assets in

the portfolio and indicates the level of concentration in the holdings. The "centroid" in the middle of the Ownership Zone represents the weighted average of all the holdings. The Ownership Zone helps investors differentiate between portfolios that may otherwise look similar. Investors can also use the Ownership Zone to construct diversified portfolios and model how multiple managed investments complement one another in a portfolio.

### Morningstar Pillar Ratings

Morningstar assigns scores to the People, Process, and Parent Pillars on a -2 to +2 basis. Those scores correspond to the pillar ratings assigned to a vehicle based either on an analyst's qualitative assessment or using algorithmic techniques (as explained in further detail in the "Pillar Evaluation" section of Morningstar Medalist Rating Methodology). The pillar ratings take the form of Low, Below Average, Average, Above Average, and High.

The Morningstar Pillar Rating should not be used as the sole basis in evaluating a managed investment. Morningstar Pillar Ratings involve unknown risks and uncertainties which may cause Morningstar's expectations not to occur or outcomes to differ significantly from what we expected.

### Morningstar Portfolio Sustainability Score

The Morningstar Portfolio Sustainability Score is an asset-weighted average of company-level ESG Risk scores. The Portfolio Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk.

### Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a managed investment at the time of calculation.

### Morningstar Rating™

The Morningstar Rating™ for funds, or "star rating", is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange traded funds, closed-end funds, and separate accounts) with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is

derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. The weights are: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/ 40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods.

### Morningstar Rating Breakdown

The Morningstar rating breakdown section sums the percentage of assets in a Parent Company's funds (share classes) that receive, 5-, 4-, 3-, 2-, 1-star, or Not Rated Morningstar Ratings.

### Morningstar Rating for Stocks

The Morningstar Rating for Stocks is a forward-looking, analyst-driven measure of a stock's current price relative to the analyst's estimate of what the shares are worth. Stock star ratings indicate whether a stock, in the equity analyst's educated opinion, is cheap, expensive, or fairly priced. To rate a stock, an analyst estimates what he thinks it is worth (its "fair value"), using a detailed, long-term cash flow forecast for the company. A stock's star rating depends on whether its current market price is above or below the fair value estimate. Those stocks trading at large discounts to their fair values receive the highest ratings (4 or 5 stars). Stocks trading at large premiums to their fair values receive lower ratings (1 or 2 stars). A 3-star rating means the current stock price is fairly close to the analyst's fair value estimate.

### Morningstar Return

The Morningstar Return rates a managed investment's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

### Morningstar Risk

Morningstar Risk evaluates a managed investment's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below

Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

**Morningstar Style Trail**

The Morningstar Style Trail give you a historical view of the movement of a managed investment’s portfolio over time in terms of equity style based on historical periods. This helps to clearly define the management of a portfolio over time and determine the consistency of that management.






**Morningstar Sustainability Rating™**

The Morningstar Sustainability Rating™ is intended to measure how well the issuing companies of the securities within a managed investment’s portfolio holdings are managing their financially material environmental, social and governance, or ESG, risks relative to the managed investment’s Morningstar Global Category peers.

The Morningstar Sustainability Rating calculation is a five-step process. First, each managed investment with at least 67% of assets covered by a company-level ESG Risk Score from Sustainalytics receives a Morningstar Portfolio Sustainability Score. The Morningstar Portfolio Sustainability Score is an asset-weighted average of company-level ESG Risk Scores. The Portfolio Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk.

Second, the Historical Sustainability Score is an exponential weighted moving average of the Portfolio Sustainability Scores over the past 12 months. The process rescales the current Portfolio Sustainability Score to reflect the consistency of the scores. The Historical Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk, on a consistent historical basis.

Third, the Sustainability Rating is then assigned to all scored managed investments within Morningstar Global Categories in which at least thirty (30) managed investments receive a Historical Sustainability Score and is determined by each managed investment’s Morningstar Sustainability Rating Score rank within the following distribution:

	High	Highest 10%
	Above Average	Next 22.5%
	Average	Next 35%
	Below Average	Next 22.5%
	Low	Lowest 10%

Fourth, we apply a 1% rating buffer from the previous month to increase rating stability. This means a managed

investment must move 1% beyond the rating breakpoint to change ratings.

Fifth, we adjust downward positive Sustainability Ratings to managed investments with a with high ESG Risk scores. The logic is as follows:

- If Portfolio Sustainability score is above 40, then the managed investment receives a Low Sustainability Rating.
- If Portfolio Sustainability score is above 35 and preliminary rating is Average or better, then the managed investment is downgraded to Below Average.
- If Portfolio Sustainability score is above 30 and preliminary rating is Above Average, then the managed investment is downgraded to Average.
- If Portfolio Sustainability score is below 30, then no adjustment is made.

The Morningstar Sustainability Rating is depicted by globe icons where High equals 5 globes and Low equals 1 globe. Since a Sustainability Rating is assigned to all managed investments that meet the above criteria, the rating it is not limited to managed investments with explicit sustainable or responsible investment mandates.

Morningstar updates its Sustainability Ratings monthly. The Portfolio Sustainability Score is calculated when Morningstar receives a new portfolio. Then, the Historical Sustainability Score and the Sustainability Rating is calculated one month and six business days after the reported as-of date of the most recent portfolio. As part of the evaluation process, Morningstar uses Sustainalytics’ ESG scores from the same month as the portfolio as-of date.

Please go to <http://corporate1.morningstar.com/sustainableinvesting/> for more detailed information about the Morningstar Sustainability Rating methodology and calculation frequency.

**NAV**

A managed investment’s net asset value (NAV) represents its per-share price. NAV is calculated by dividing a managed investment’s total net assets by its number of shares outstanding.

**Percentile Rank in Category**

Percentile Rank is a standardized way of ranking items within a peer group, in this case, managed investments within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

**Peer Group**

The Peer Group, or rating group, is a group of similar managed investments that are compared against each

other for the purpose of assigning Morningstar ratings. For managed investments, the rating group is the Morningstar Category.

**Percentile Rank in Global Category**

Percentile Rank is a standardized way of ranking items within a peer group. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable.

**Performance Quartile**

Performance Quartile reflects a managed investment’s Morningstar Rank.

**Potential Capital Gains Exposure**

Potential Capital Gains Exposure is an estimate of the percent of a fund’s assets that represent gains. It measures how much the fund’s assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund’s holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

**Price/Book Ratio**

The Price/Book Ratio (or P/B Ratio) for a managed investment is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company’s book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company’s assets based on historical valuations.

**Price/Cash Flow Ratio**

The Price/Cash Flow Ratio (or P/C Ratio) for a managed investment is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company’s operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

**Price/Earnings Ratio**

The Price/Earnings Ratio (or P/E Ratio) for a managed investment is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months’ earnings per share. It can act as a gauge of a managed investment’s investment strategy in the current market climate, and whether it has a value or growth orientation. Companies in those industries enjoying a surge of popularity tend to have high P/E Ratios, reflecting a growth orientation. More staid industries tend to have low P/E Ratios, reflecting a value orientation.

### Price/Sales Ratio

The Price/Sales Ratio (or P/S Ratio) for a managed investment is the weighted average of the price/sales ratios of the stocks in its portfolio. Price/sales represents the amount an investor is willing to pay for a dollar of revenue generated from a particular company's operations.

### Profitability

The profitability grade is based on return on shareholders' equity (ROE) using data from the past five years. Companies with less than four years of consecutive ROE figures, including the ROE figure for the latest fiscal year, are excluded from the calculations. For the remaining universe of stocks, the profitability grade is based on the following three components:

1. The historical growth rate of ROE
2. The average level of historical ROE
3. The level of ROE in the latest fiscal year

### R-Squared

R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

### Representative Cost

Representative cost incorporates re-occurring costs charged by a fund to facilitate comparison of funds that calculate fees in different ways. For most markets, the representative cost is calculated using the net expense ratio excluding transaction costs. In the U.S., the representative cost does not include acquired expenses from other funds it may invest in, one-off costs, costs charged by third parties such as financial professionals or platforms, or one-off costs charged on entry or exit.

### Risk vs Return Scatterplot

The risk vs return scatterplot graph plots the return and risk (measured by standard deviation) for a selection of securities and a benchmark index for the trailing period identified in the report.

The returns noted for a security reflect any sales charges that were applied in the illustration over the time period selected, but do not reflect impacts of taxation. If impacts of taxation were reflected, the returns would be lower than those indicated in the report.

The return plotted in the graph is mean geometric return. Standard deviation is a statistical measure of the volatility of the security's or portfolio's returns in relation to the mean return. The larger the standard deviation, the greater the volatility of return in relation to the mean return.

### ROIC

This figure is the percentage a company earns on its invested capital in a given year (Year 1, 2, etc.).

The calculation is net operating profit after tax divided by average invested capital. The resulting figure is then multiplied by 100. Invested capital equals the sum of total stockholders' equity, long-term debt and capital lease obligation, and short-term debt and capital lease obligation. ROIC shows how much profit a company generates on its capital base. The better the company, the more profit it generates as a percentage of its invested capital. The company's net income is found in the income statement. The components of the company's invested capital are found in the balance sheet.

### Sales Growth %

Sales Growth is the estimation of the growth of sales for a stock. This is calculated by averaging the sales-growth rate per share of the stock for up to the previous four years. A managed investment's sales growth % is calculated by taking a share weighted average of the collective sales for all stocks in its portfolio.

### Role in Portfolio

Role in portfolio assists with portfolio allocation, managed investments can be designated "core", "supporting", or "specialty". Core funds should typically be the bulk of an investor's portfolio, while supporting players contribute to a portfolio but are secondary to the core. Specialty offerings tend to be speculative and should typically only be a small portion of an investor's portfolio.

### Sector Weightings %

Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Fixed-income Super Sectors represent Morningstar's broadest classification of fixed-income sectors. Securities held in domestic taxable-bond portfolios are mapped into one of 14 fixed-income sectors, which in turn, roll up to five super sectors. The Government Super Sector includes all conventional debt issued by governments, bonds issued by a Central Bank or Treasury, and bonds issued by local governments, cantons, regions, and provinces. The Municipal Super Sector includes taxable and tax-exempt debt obligations issued under the auspices of states, cities, counties, provinces, and other non-federal government entities. The Corporate Super Sector includes bank loans, convertible bonds, conventional debt securities issued by corporations, and preferred stock.

The Securitized Super Sector includes all types of mortgage-based securities, covered bonds, and asset-backed securities. The Cash & Equivalents Super Sector includes cash in the bank, certificates of deposit, currency, and money market holdings. Cash can also be any fixed-income securities that mature in certain short time frames, commercial paper, and repurchase agreements. The Derivatives Super Sector includes the common types of fixed-income derivative contracts: futures and forwards, options, and swaps. This sector may be displayed as "Other" in certain reports.

### Sharpe Ratio

Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

### Standard Deviation

Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

### Standardized Returns

Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

### Tax Cost Ratio

The Morningstar Tax Cost Ratio measures how much a managed investment's annualized return is reduced by the taxes investors pay on distributions. Mutual funds regularly distribute stock dividends, bond dividends and capital gains to their shareholders. Investors then must pay taxes on those distributions during the year they were received.

Like an expense ratio, the tax cost ratio is a measure of how one factor can negatively impact performance. Also like an expense ratio, it is usually concentrated in the range of 0-5%. 0% indicates that the managed investment had no taxable distributions and 5% indicates that the managed investment was less tax efficient.

### Tenure Return %

Tenure Return % is the annualized return of a managed investment since the manager started running the strategy. This is useful to compare with the Index Return %, which measures the relevant index's annualized return in the same time period.

### Total Firm Assets and Fund Flows

Morningstar estimates fund-level flow data and aggregates it at the firm level. The Flows graph shows quarterly net flows and the firm's asset growth rate. This information illustrates the movement of money into and

out of the firm's funds over time, which can be particularly illustrative in times of market volatility.

### Trailing Returns

Trailing Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the managed investment was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a managed investment has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

### Total Return

Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the managed investment was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a managed investment has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

### Turnover Ratio %

Turnover Ratio measures the trading activity in a managed investment's portfolio by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. In practical terms, the resulting percentage loosely represents the percentage of the managed investment's underlying holdings that have changed over the past year. The inverse of a managed investment's turnover ratio is the average holding period for a security in that managed investment.

### Upside Capture Ratio %

Upside Capture Ratio measures a managed investment's performance in up markets relative to the market (benchmark) itself. It is calculated by taking the managed investment's upside capture return and dividing it by the benchmark's upside capture return.

### World Regions %

The world regions is a display of the portfolio's assets invested in the regions shown on the report.

## Investment Risks

### International/Emerging Market Equities

Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

### Sector Strategies

Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks.

### Non-Diversified Strategies

Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

### Small Cap Equities

Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

### Mid Cap Equities

Portfolios that invest in companies with market capitalization below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

### High-Yield Bonds

Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

### Tax-Free Municipal Bonds

The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

### Bonds

Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

### HOLDERS

The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment

would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

### Hedge Funds

The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

### Bank Loan/Senior Debt

Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

### Exchange Traded Notes (ETNs)

ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

### Leveraged ETFs

Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their managed investment objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the managed investment to be either greater or less than the index performance multiplied by the multiple stated within the managed investments objective over a stated time period.

### Short Positions

When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

### Long-Short

Due to the strategies used by long-short managed investments, which may include but are not limited to leverage, short selling, short-term trading, and investing

in derivatives, these managed investments may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

#### Liquidity Risk

Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

#### Market Price Risk

The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

#### Market Risk

The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

#### Target-Date Funds

Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

#### High double- and triple-digit returns

High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

## Benchmark Disclosure

#### Barclays US Agg Bond TR USD

This index is composed of the BarCap Government/Credit Index, the Mortgage- Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which include the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond.

#### MSCI EAFE NR USD

This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain

information included herein is derived by Morningstar in part from MSCI's Index Constituents (the "Index Data"). However, MSCI has not reviewed any information contained herein and does not endorse or express any opinion such information or analysis. MSCI does not make any express or implied warranties, representations or guarantees concerning the Index Data or any information or data derived therefrom, and in no event will MSCI have any liability for any direct, indirect, special, punitive, consequential or any other damages (including lost profits) relating to any use of this information.

#### Russell 1000 TR USD

Consists of the 1000 largest companies within the Russell 3000 index, which represents approximately 98% of the investable US equity market. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The constituents displayed for this index are from the following proxy: iShares Russell 1000.

#### S&P500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core S&P 500.

#### USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

#### Bloomberg Indexes

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# Cartesio X FI

<b>Morningstar Medalist Rating</b> Silver 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	<b>Morningstar Rating™</b> ★★★★★ 31 Dec 2024 804 Inv. in Category	<b>Sustainability Rating</b> 31 Oct 2024	<b>Morningstar Category</b> EAA Fund EUR Cautious Allocation	<b>Category Index</b> Morningstar EU Cau Tgt Alloc NR EUR	<b>Total Assets</b> 320.4 EUR Mil	<b>Inception Date</b> 24 Feb 2004
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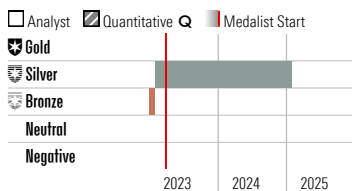
**Thomas De Fauw**  
Analyst

Analyst-Driven %	100.0
Data Coverage %	100.0

**Morningstar Pillars**

Process(02 Feb 2024)		Above Average
People(02 Feb 2024)		Above Average
Parent(16 Feb 2023)		Above Average

**Historical Medalist Rating**



**Role in Portfolio: —**

**Morningstar Medalist Rating**

Morningstar Medalist Ratings/Pillar Scores are assigned based on (1) an analyst's qualitative assessment, either directly or indirectly or (2) using algorithmic techniques intended to be similar to those an analyst might assign if he/she had covered the vehicle. Investment vehicles are evaluated on three key pillars. Qualitative investment research is produced and issued by subsidiaries of Morningstar, Inc. Quantitatively-driven analysis is generated using mental models meant to mirror analyst-driven written analysis.

This strategy remains a dependable offering for long-term investors.

**Summary** Thomas De Fauw, 02 Feb 2024 20:29 UTC

Cartesio's income strategy has several strengths, as reflected in its People and Process Pillar ratings of Above Average.

We hold the managers and firm founders Juan Bertrán, Alvaro Martinez, and Cayetano Cornet in high regard. This dedicated trio has been investing together since 2004 and has closely aligned their interests with those of investors. To support their research effort, between 2015 and 2017, they built a team of four analysts, of which three remain. Ignacio Sanz and Ignacio Carvajal became portfolio managers and partners in 2019 and Jorge Losa in 2023.




The team has a vast universe to cover and thus relies to some extent on sell-side research, but this strategy (with funds called Cartesio X in Spain and Cartesio Income in Luxembourg) has a patient, value-oriented, and established process, which helps narrow the opportunity set. There are two sources of alpha here: asset allocation across equity (maximum 40%, since-inception average 20%), bond, and cash, and security selection. The team prefers to keep cash for safety and optionality when prevailing valuations are high and did so between 2011 and 2021, with the cash allocation over 60% at the end of June 2020. This cash stake provides safety and plenty of dry powder but also limits the fund's return potential. That said, the team is not shy in taking risk within its equity and fixed-income sleeves. Its demanding criteria in terms of risk/reward

Style	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD	
<b>Equity</b>												<b>Investment Style</b>
												Equity Style Box
												Fixed Income Style Box
												<b>Total Return % (EUR)</b>
	1.89	1.78	3.63	-3.21	4.59	-1.87	5.20	-2.94	10.26	8.58	8.58	Investment
	1.65	1.75	2.50	-4.79	6.71	0.70	3.79	-10.30	6.77	4.95	4.94	Category Average
	2.57	2.91	2.19	-1.58	8.35	3.21	2.25	-13.37	7.46	4.47	4.47	Category Index
											N/A	<b>Performance Quartile (within Category)</b>
	44	50	26	26	75	85	29	4	9	8	N/A	Percentile Rank
	737	794	877	950	976	968	987	961	970	941	934	# of Inv in Cat.

YTD Investment as of 31 Dec 2024 | Category: EAA Fund EUR Cautious Allocation as of 9 Jan 2025 | Index: Morningstar EU Cau Tgt Alloc NR EUR as of 9 Jan 2025 | Italics indicate Extended Performance. Extended performance is an estimate based on the performance of the fund's oldest share class, adjusted for fees. Performance data presented is non-standardized. For standardized performance see the Standardized and Tax Adjusted Returns Disclosure Statement. **\*Performance Disclosure:** The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when sold, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end, please visit <http://advisor.morningstar.com/familyinfo.asp>.




# Cartesio X FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 804 Inv. in Category	 31 Oct 2024	EAA Fund EUR Cautious Allocation	Morningstar EU Cau Tgt Alloc NR EUR	320.4 EUR Mil	24 Feb 2004

has led it to avoid large swaths of the fixed-income markets for years and led the managers toward subordinated financials. Throughout 2022 and 2023, however, they aggressively brought credits to lift their bond exposure to 76% at the end of 2023 while lowering the equity weight to 22%. As for stock selection, the managers invest in 30–40 names with a long-term horizon. Companies are individually selected based on their fundamental merit but with a strong focus on valuations.

The allocation to cyclical stocks and subordinated debt backfired in the first quarter of 2020, but the team has held on to its positions, and performance has since recovered. Over the trailing three years through December 2023, the Cartesio X fund outperformed 98% of its Morningstar Category peers thanks to its European value bias, income from the credit portfolio, and a short position in Spanish government bonds in early 2022. We think the strategy rests on solid ground and retains the potential to deliver on its mandate.

**Process**  Above Average | Thomas De Fauw, 02 Feb 2024 20:29 UTC




## Approach

This established, long-term, and value-oriented process has been executed consistently since the strategy's launch in 2004. The strategy can invest flexibly in equities (maximum 40%), fixed income, and cash to reach its objective of providing higher risk-adjusted returns than long-term euro sovereign bonds. The percentage allocated to each asset class depends on the managers' outlook. Until 2008, the focus of the fixed-income strategy was primarily on duration management. However, since then, security selection and allocation to credit have become more important sources of alpha, partly driven by the difficulties of finding attractive yields elsewhere. The managers prefer companies with strong competitive positions, healthy balance sheets, and strong cash flow generation that are trading below their fundamental estimate of intrinsic value. In the fixed-income sleeve, the team's ability to add value seems more limited relative to its strongest competitors, given the team's experience and resources. This is mitigated by the managers' focused, value-driven approach and experience, as well as the addition of Ignacio Sanz in 2015; his specialty is the coverage of financials, including hybrids. All in all, we like the managers' patience and long-term orientation, their high-conviction approach, flexibility and efficiency in decision-making, and valuation discipline. Our Process Pillar rating remains Above Average.

## Portfolio

The asset-allocation mix tends to be slow-moving, as the team typically responds gradually and countercyclically to major market moves or dislocations, preferring to keep cash for safety and optionality when opportunities are scarce. It has gradually been increasing the fund's allocation to cash, mostly at the expense of fixed-income securities since 2011, and it topped at over 60% in mid-2020. That said, when opportunities do arise, the managers can act quickly. Throughout 2022 and 2023, they aggressively bought investment-grade and high-yield credit, and by year-end their allocation to fixed income accounted for 76%

# Cartesio X FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 804 Inv. in Category	 31 Oct 2024	EAA Fund EUR Cautious Allocation	Morningstar EU Cau Tgt Alloc NR EUR	320.4 EUR Mil	24 Feb 2004

of assets, up 32 percentage points from the end of 2021. The high-yield exposure limit was expanded to 30% from 20% in 2023 and includes Additional Tier 1 bonds issued by Spanish and Italian banks. Over 60% of its bond sleeve consists of investment-grade credit, and the team has maintained a negative view on duration.

The fund's equity exposure essentially mimics the equity sleeve of Cartesio's Equity/Y strategy, with lower weights. It reached a multiyear high of around 35% at the end of 2021, as the managers gradually found more opportunities among beaten-down cyclicals. By 2023, they lowered that allocation to 22% to compensate for the additional risk taken in the fixed-income sleeve. The fund lands in the value segment of the Morningstar Style Box and remains heavily underweight in technology, healthcare, and consumer cyclicals.

## People Above Average | Thomas De Fauw, 02 Feb 2024 20:29 UTC

This team stands out in terms of experience, stability, dedication, and alignment of interests with investors. We also appreciate the six managers' independent, contrarian mindset and strong belief in their investment process, which helps them narrow an otherwise vast investment universe of potential candidates that the team needs to cover. Our People Pillar rating is Above Average.

Juan Bertrán, Alvaro Martinez, and Cayetano Cornet founded Cartesio Inversiones and invest all their financial net worth in the two strategies they manage. Bertrán and Martinez worked together for around 10 years at AB Asesores (acquired by Morgan Stanley in 2000) in the equities sales department before founding Cartesio. Cornet has more than 25 years of investment experience, having worked for Credit Lyonnais and Invercaixa. The managers built a compact supporting team of four analysts in 2015-17 as the firm's assets under management grew. Unfortunately, the team is down by one; one of the more-junior staff members left the firm in July 2020 and has not been replaced. Ignacio Sanz and Ignacio Carvajal, who joined in 2015 and 2016, respectively, became portfolio managers in 2019, and Jorge Losa was promoted to the role in 2023. The three form the firm's investment committee alongside the three founders. They also became partners, with a small ownership stake in the firm, which is a welcome measure with regard to key staff retention and long-term succession planning.

## Parent Above Average | Thomas De Fauw, 16 Feb 2023 13:39 UTC

Cartesio Inversiones remains a strong steward of capital, and we are keeping its Parent Pillar rating at Above Average.

We continue to like the firm thanks to its stable team, focused lineup, and strong alignment of interests with investors. The firm's investment ethos is grounded on solid principles that have been applied consistently for more than 15 years.

Since its 2004 inception, this Madrid-based boutique has offered two active strategies: a flexible equity and



# Cartesio X FI

## Morningstar Medalist Rating



02 Feb 2024 20:29 UTC  
Thomas De Fauw, Analyst

## Morningstar Rating™



31 Dec 2024  
804 Inv. in Category

## Sustainability Rating



31 Oct 2024

## Morningstar Category

EAA Fund EUR

Cautious Allocation

## Category Index

Morningstar EU Cau

Tgt Alloc NR EUR

## Total Assets

320.4 EUR Mil

## Inception Date

24 Feb 2004

a cautious multi-asset fund. They are run by the firm's three founders with the support of a small team they have built up in recent years. Two of them were promoted to portfolio manager in 2019. Sadly, the firm has also seen three junior analysts leave since 2014. The founding managers and owners invest all their net worth in the funds, which helps align their interests with investors', and have been selling a small part of their shares to the two other portfolio managers to strengthen retention and as a first small step toward long-term succession planning. Fees on the Spanish funds and their Luxembourg-domiciled siblings remain competitive, especially for retail investors. Both funds charge a small (7.5%) performance fee on top of a relatively modest base commission, which further increases the group's focus on performance.

### Performance

Cartesio's income strategy posted the worst monthly return of its history in March 2020, as the team's security selection proved disastrous during the coronavirus-driven market turmoil.

This period contrasts heavily with previous selloffs, such as 2008, 2011, and 2018, during which the managers had been able to protect capital better than their category peers. Several positions, from subordinated financials to airline stocks, got severely hit amid the market selloff. But performance recovered and the renewed interest in cyclical stocks, combined with an underweighting in rate-sensitive sectors like technology, income from the credit portfolio built over 2022-23, and a short position in Spanish government bonds in early 2022, led the Spain-domiciled Cartesio X to outperform 98% of its EUR cautious target allocation peers over the trailing three years through December 2023.

Overall, the effective management of the fund's market exposure and successful stock selection have paid off over longer periods. Cartesio X's since-inception returns through the end of December 2023, at 3.8% annualized, are well ahead of the category average; over the trailing 15 years, the fund beat 85% of its peers. It has also delivered on its mandate of outperforming long-term euro government bonds on a risk-adjusted basis (as measured by the Bloomberg Euro Aggregate Government 7-10 Yr Index) in part because of its negative stance on duration in 2022.

### Price

It's critical to evaluate expenses, as they come directly out of returns.




Based on our assessment of the fund's People, Process, and Parent Pillars in the context of these expenses, we think this share class will be able to deliver positive alpha relative to the category benchmark index, explaining its Morningstar Medalist Rating of Silver.

### Sustainability Summary | Autogenerated by Morningstar Manager Research, 03 Jan 2025 16:14 UTC

Cartesio X FI may not appeal to sustainability-conscious investors.

This strategy has an above-average Morningstar Sustainability Rating of 4 globes, indicating that the ESG

# Cartesio X FI

Morningstar Medalist Rating	Morningstar Rating™	Sustainability Rating	Morningstar Category	Category Index	Total Assets	Inception Date
 02 Feb 2024 20:29 UTC Thomas De Fauw, Analyst	 31 Dec 2024 804 Inv. in Category	 31 Oct 2024	EAA Fund EUR Cautious Allocation	Morningstar EU Cau Tgt Alloc NR EUR	320.4 EUR Mil	24 Feb 2004

risk of holdings in its portfolio is relatively low compared with those of its peers in the Cautious Allocation category. ESG risk measures the degree to which material environmental, social, and governance issues, such as climate change, biodiversity, human capital, as well as bribery and corruption, could affect valuations. ESG risk differs from impact, which is about driving positive environmental and social outcomes for society’s benefit.

Cartesio X FI has an asset-weighted Carbon Risk Score of 8.6, indicating that its companies have low exposure to carbon-related risks. These are risks associated with the transition to a low-carbon economy such as increased regulation, changing consumer preferences, technological advancements, and stranded assets.

A potential issue for a sustainability-focused investor is that Cartesio X FI is not classified by its manager as Article 8 or Article 9 of the Sustainable Finance Disclosure Regulation. Funds classified by their managers as aligning with Article 8 or Article 9 have a higher probability to drive positive ESG outcomes. Currently, the fund has 16.9% involvement in fossil fuels, surpassing 10.0% for the average peer in its category. Companies are considered involved in fossil fuels if they derive some revenue from thermal coal, oil, and gas.

The fund has a modest level of exposure (5.32%) to companies with high or severe controversies. Companies with controversies are involved in incidents such as corruption, employee abuses, and that pose some degree of business risks to the company. Severe and high controversies can have significant financial repercussions, ranging from legal penalties to consumer boycotts. In addition, they controversies can damage the reputation of both companies themselves and their shareholders. ■■■

# Cartesio X FI

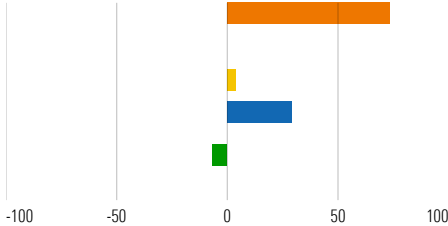
Process | ● Above Average

**Morningstar Category**  
EAA Fund EUR Cautious Allocation

**Category Index**  
Morningstar EU Cau Tgt Alloc NR EUR

**Prospectus Benchmark**  
BBgBarc Series Euro ...7-10 Yr

## Asset Allocation 30 Jun 2024



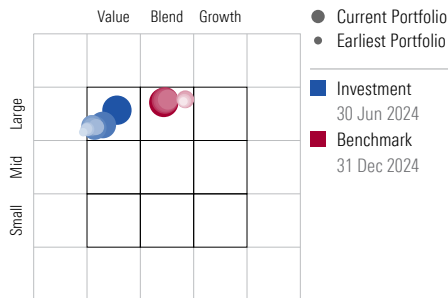
Asset Class	Net	Short	Long	Cat Avg.	Cat Index
Fixed Income	73.53	0.00	73.53	74.92	72.22
Preferred	0.00	0.00	0.00	0.20	0.00
Convertible	4.01	0.00	4.01	0.83	0.12
Equity	29.17	0.00	29.17	20.78	17.48
Cash	-6.71	11.14	4.43	1.89	0.00
Other	0.00	0.00	0.00	1.39	10.18
<b>Total</b>	<b>100.00</b>	<b>11.14</b>	<b>111.14</b>	<b>100.01</b>	<b>100.00</b>

## Top Holdings 30 Jun 2024

Holdings	Portfolio Weight %	Investment Type	Total Rtn YTD %
Future on Euro Stoxx 50	6.71	Other	—
UniCredit S.p.A. 1.937%	2.62	Other	—
Future on EUR/USD Future	2.50	Cash	—
British Am... PLC 3.75%	2.08	Fixed Inc	—
Intesa San...A. 4.562%	1.88	Other	—

## Equity

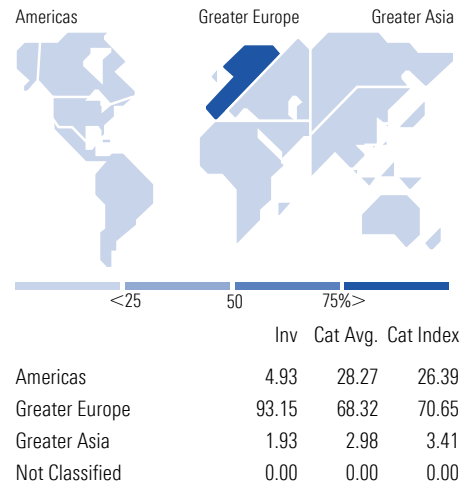
### Morningstar Style Trail 30 Jun 2024



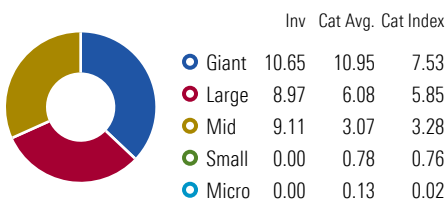
### Sector Weightings % 30 Jun 2024

	Inv	Cat Avg.	Cat Index
<b>Cyclical</b>	<b>43.80</b>	<b>33.42</b>	<b>35.70</b>
Basic Materials	12.65	4.76	5.07
Consumer Cyclical	8.55	10.57	9.88
Financial Services	16.60	17.00	18.56
Real Estate	6.00	1.09	2.19
<b>Sensitive</b>	<b>39.11</b>	<b>44.65</b>	<b>39.67</b>
Communication Svcs.	12.14	5.85	5.20
Energy	7.43	3.49	4.32
Industrials	13.94	16.36	15.60
Technology	5.60	18.95	14.55
<b>Defensive</b>	<b>17.10</b>	<b>21.94</b>	<b>24.63</b>
Consumer Defensive	8.20	6.68	8.36
Healthcare	4.01	11.43	12.94
Utilities	4.89	3.83	3.33

### World Regions % 30 Jun 2024



### Market Capitalization Breakdown % 30 Jun 2024



## Fixed Income

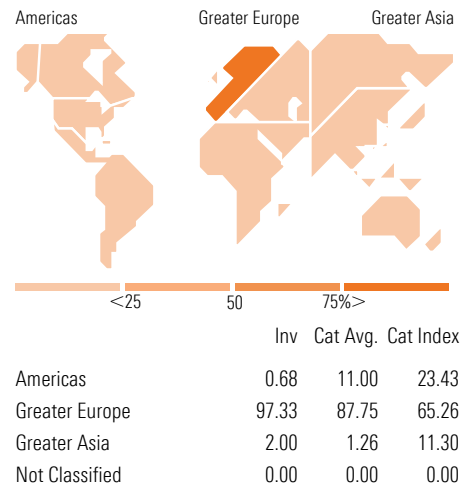
### Credit Quality Surveyed —

	Inv	Cat Avg.	Cat Index
<b>Investment Grade</b>	<b>AAA</b>	—	15.5
AA	—	14.9	—
A	—	16.5	—
BBB	—	36.4	—
<b>Total %</b>	<b>—</b>	<b>83.3</b>	<b>—</b>
<b>Below Investment Grade</b>	<b>BB</b>	—	7.0
B	—	1.4	—
Below B	—	0.2	—
Not Rated	—	8.0	—
<b>Total %</b>	<b>—</b>	<b>16.6</b>	<b>—</b>

### Fixed Income Super Sectors 30 Jun 2024

	Inv	Cat Avg.	Cat Index
Government	0.0	37.0	76.9
Corporate	94.3	45.9	17.6
Securitized	0.0	2.8	5.5
Municipal	0.0	—	—
Cash & Equivalents	0.0	3.8	0.0
Other	5.7	10.5	0.0

### World Regions % 30 Jun 2024



### Interest Rate Sensitivity 30 Jun 2024


	Inv	Cat Avg.	Cat Index
Avg Effective Duration	—	3.7	—
Avg Effective Maturity	—	5.1	—

### Income 30 Jun 2024

30-day SEC Yield %	—	—	—
SEC Yield surveyed —	—	—	—
30-day Unsubsidized Yield %	—	—	—
30-day Yield surveyed —	—	—	—

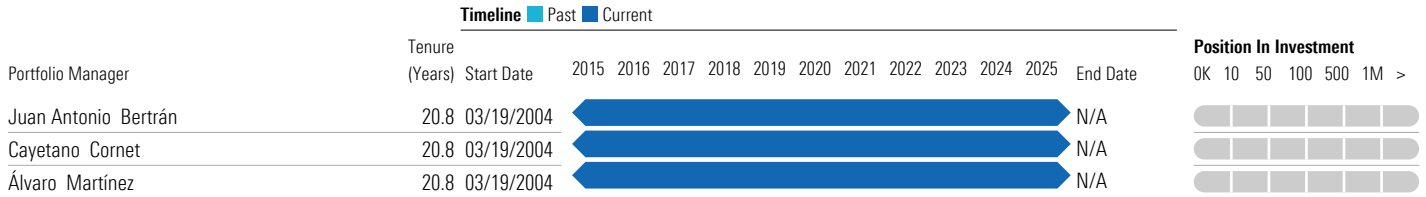
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# Cartesio X FI

People |  Above Average

<b>Morningstar Category</b> EAA Fund EUR Cautious Allocation	<b>Category Index</b> Morningstar EU Cau Tgt Alloc NR EUR	<b>Prospectus Benchmark</b> BBgBarc Series Euro ...7-10 Yr
---	--	---

<b>Management</b>	<b>Inception Date</b> 24 Feb 2004	<b>Number of Mgrs</b> 3	<b>Longest Tenure</b> 20.8 Years	<b>Average Tenure</b> 20.8 Years	<b>Advisor(s)</b> Cartesio Inversiones SGIC	<b>Subadvisor(s)</b> —
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<b>Juan Antonio Bertrán</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 2	<b>Investment AUM</b> 548.682 Mil USD				
Largest Investments Managed	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
Cartesio Y FI	15 Mar 2004 to 09 Jan 2025	1 of 3	216.25	EUR	—	—	5.22	5.31

<b>Cayetano Cornet</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 4	<b>Investment AUM</b> 867.945 Mil USD				
Largest Investments Managed	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
Cartesio Funds Income	13 Jan 2020 to 09 Jan 2025	1 of 3	223.24	EUR	—	—	3.30	0.48
Cartesio Y FI	15 Mar 2004 to 09 Jan 2025	1 of 3	216.25	EUR	—	—	5.22	5.31
Cartesio Funds Equity	13 Jan 2020 to 09 Jan 2025	1 of 3	87.08	EUR	—	—	3.74	3.62

<b>Álvaro Martínez</b>	<b>Years of Experience</b> —	<b>Position In Investment</b> N/A	<b>Current Investments Managed</b> 4	<b>Investment AUM</b> 867.945 Mil USD				
Largest Investments Managed	<b>Tenure Dates</b>	<b>Role</b>	<b>Inv. Size Mil</b>	<b>Currency</b>	<b>Inv. Mil</b>	<b>Turnover Ratio %</b>	<b>Tenure Ret %</b> 31 Dec 2024	<b>Index Ret</b> 31 Dec 2024
Cartesio X FI	19 Mar 2004 to 09 Jan 2025	1 of 3	321.37	EUR	—	—	4.03	3.37
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Cartesio Funds Equity	13 Jan 2020 to 09 Jan 2025	1 of 3	87.08	EUR	—	—	3.74	3.62

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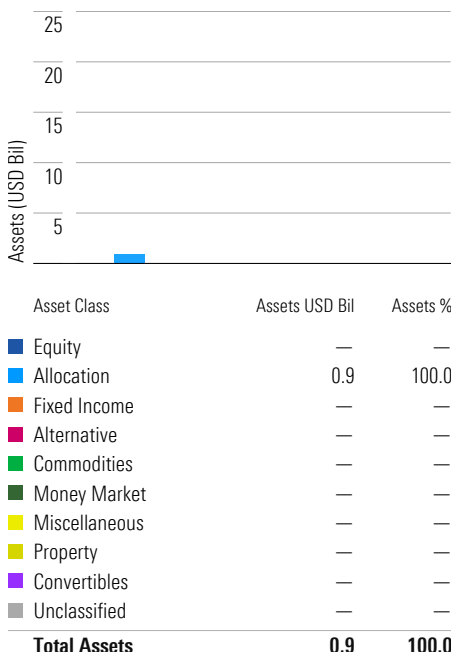
# Cartesio X FI

Parent | ● Above Average

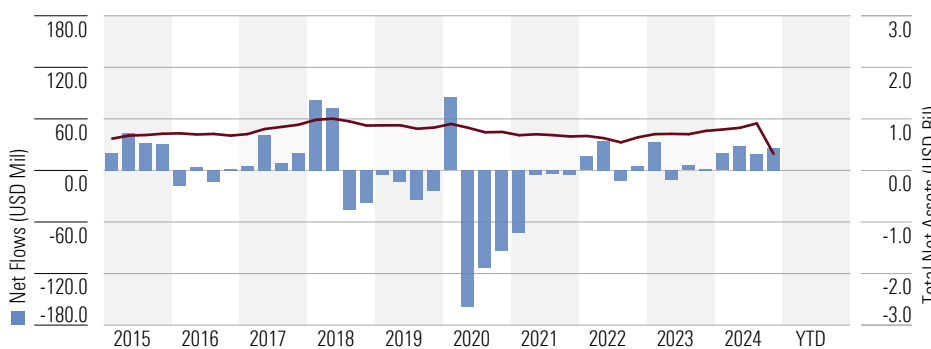
<b>Morningstar Category</b> EAA Fund EUR Cautious Allocation	<b>Category Index</b> Morningstar EU Cau Tgt Alloc NR EUR	<b>Prospectus Benchmark</b> BBgBarc Series Euro ...7-10 Yr
<b>Firm / Investment Provider</b> Cartesio Inversiones SGIIC	<b>Advisor</b> Cartesio Inversiones SGIIC	<b>Subadvisor</b> —

**Branding Company Breakdowns:** Cartesio Inversiones 30 Nov 2024

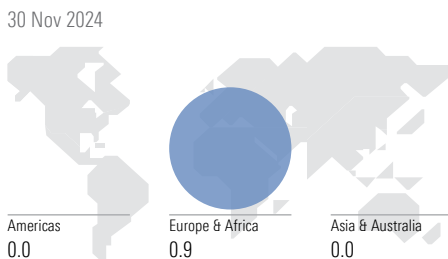
**Global Asset Class Breakdown 30 Nov 2024**



**Global Total Firm Assets and Investment Flows**



**Global Assets By Region, By Domicile USD Bil**



# Cartesio X FI

## Performance

**Morningstar Category**  
EAA Fund EUR Cautious Allocation

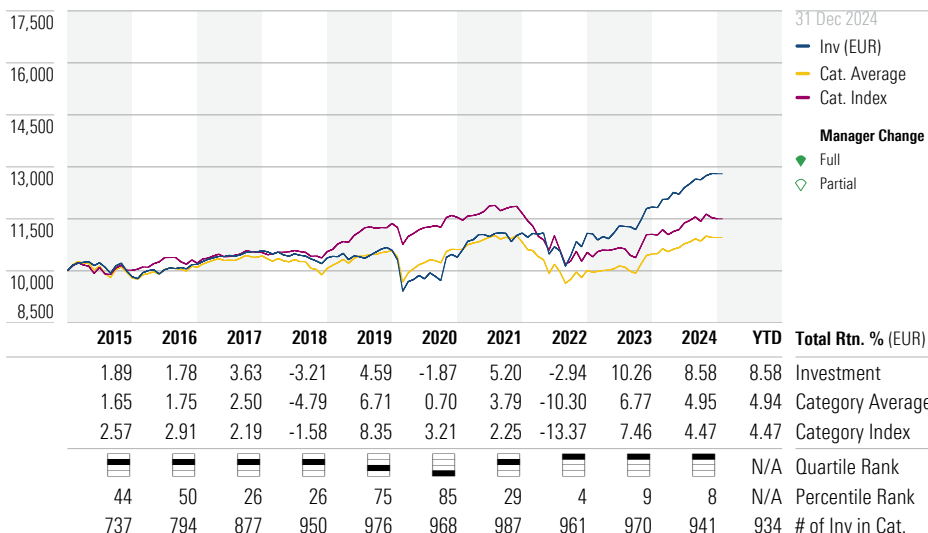
**Category Index**  
Morningstar EU Cau Tgt Alloc NR EUR

**Prospectus Benchmark**  
BBgBarc Series Euro ...7-10 Yr

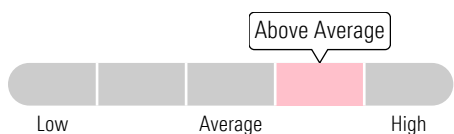
### Morningstar Rating and Risk 31 Dec 2024

Period / Inv in Cat	Total Return %	Morningstar Ret vs Cat	Morningstar Risk vs Cat	Morningstar Rating
3 Years 804	5.13	High	Above Avg	★★★★★
5 Years 716	3.71	High	Above Avg	★★★★★
10 Years 432	2.70	High	Above Avg	★★★★★
Overall	—	High	Above Avg	★★★★★

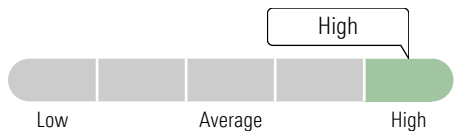
### Growth of \$10,000



### 3-Year Risk vs. Category Avg 31 Dec 2024



### 3-Year Return vs. Category Avg 31 Dec 2024



### 3-Year Market Volatility Measures 31 Dec 2024

	Inv	Cat Avg.	Cat Index
Upside Capture Ratio %	105.88	84.66	—
Downside Capture Ratio %	45.00	73.35	—
<b>Maximum Drawdown %</b>	<b>-8.65</b>	<b>-12.03</b>	<b>-14.12</b>
Drawdown Peak Date	6/1/22	1/1/22	1/1/22
Drawdown Valley Date	9/30/22	9/30/22	9/30/22
Max Drawdown Duration	4 Mo.	9 Mo.	9 Mo.

### Trailing Returns (Annualized) 31 Dec 2024

	Total Ret %	Investor Ret %	% Rank in Cat	Category Ret %	Index Ret %
1 Year	8.58	8.58	8.00	4.94	4.47
3 Years	5.13	5.46	1.00	0.20	-0.92
5 Years	3.71	2.25	2.00	0.98	0.52
10 Years	2.70	1.71	7.00	1.25	1.67
Earl Avail*	4.01	—	—	—	—

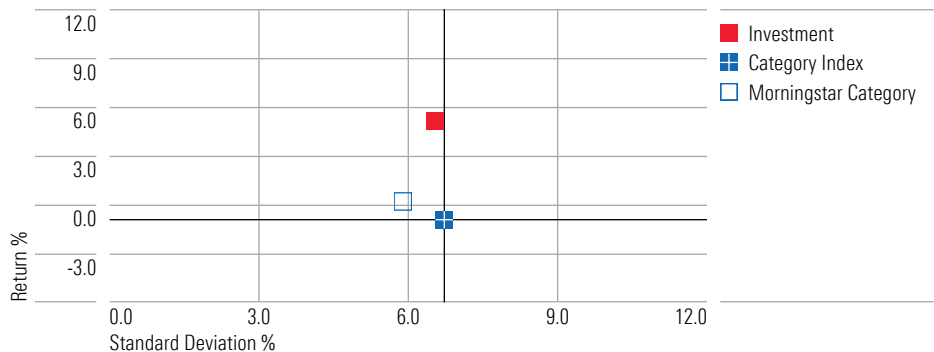
\*Earliest Available as of 24 Feb 2004

### Rolling Return Summary 31 Dec 2024

36-Month Rolling Periods	Quartile	%
214 Observations, 17 Years	1	61
	2	25
	3	9
	4	6

The shading and percentages correspond to how often the strategy returns landed in each category quartile.

### 3-Year Risk vs. Return Scatterplot 31 Dec 2024



### Risk & Return Measures 31 Dec 2024

Trailing	3-Year			5-Year			10-Year		
	Investment	Cat Avg.	Cat Index	Investment	Cat Avg.	Cat Index	Investment	Cat Avg.	Cat Index
Alpha	5.15	0.57	—	3.22	0.47	—	1.27	-0.34	—
Beta	0.73	0.77	—	0.93	0.90	—	0.86	0.92	—
R-Squared	55.67	76.95	—	49.76	73.05	—	46.93	69.25	—
Sharpe Ratio	0.47	-0.24	-0.45	0.37	0.04	-0.07	0.42	0.20	0.30
Standard Deviation %	6.54	5.89	6.72	7.75	6.29	5.93	5.91	5.30	4.73

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# Cartesio X FI

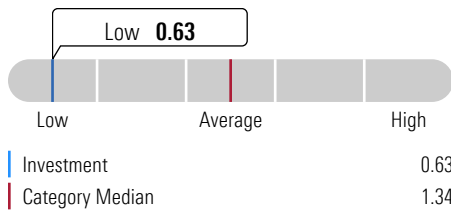
## Price

**Morningstar Category**  
EAA Fund EUR Cautious Allocation

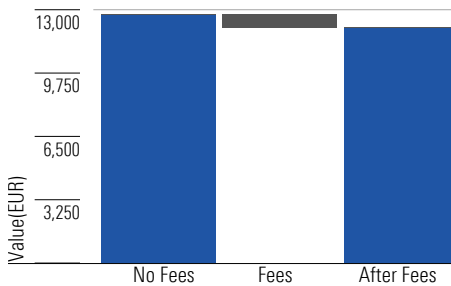
**Category Index**  
Morningstar EU Cau Tgt Alloc NR EUR

**Prospectus Benchmark**  
BBgBarc Series Euro ...7-10 Yr

### Ongoing Charge 02 Jan 2023



### Cost Illustration (10k; 5% Return; EUR) 02 Jan 2023

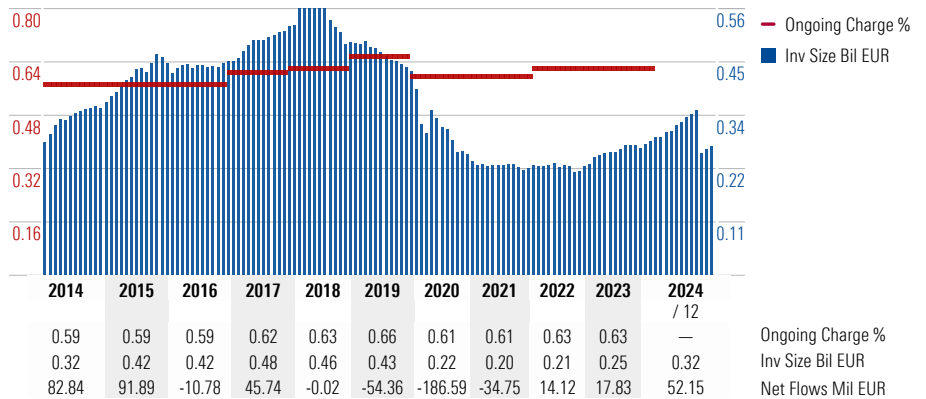


Initial Investment	10,000.00
Expected Market Return w/ No Fees (5%)	12,762.82
Fees	(681.67)

**Expected Market Return After Fees (3.9%) 12,081.14**

Ongoing fees as of 02 Jan 2023. The fees illustrated above do not reflect any additional account-related fees and charges

### Expense History 02 Jan 2023



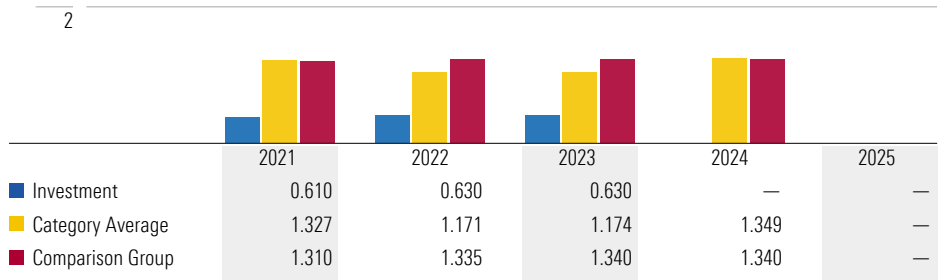
### Expense Breakdown

Ongoing Charge %	%
Ongoing Charge % 01/02/23	0.63
Representative Cost 01/31/25	0.71
Selected Components	%
Max Management Fee	0.65
Performance Fee	7.50
Category Average	—

### Fee Level

Fee Level	Low	Peer Group	EUR Cautious Allocation Retail Broad
Fee Level Breakpoints	3.55	High	> 1.75
		Above Average	1.48-1.75
		Average	1.21-1.48
		Below Average	0.90-1.21
		Low	<0.90
		Inv	0.63
		Peer Median	1.34

### Historical Expense Ratio % 02 Jan 2023



Expense Ratio:Ongoing Charge | Fee Level Comparison Group: EUR Cautious Allocation Retail Broad

### Share Class Information

Investment Name	ISIN	Status	Fee Level	Ongoing Charge %	Max Mgmt Fee	Performance Fee	Minimum Initial Investment	Assets	1-Yr Flow	Currency
Cartesio X FI	ES0116567035	Open	Low	0.63	0.65	7.50	6,000	321.37 Mil	52.15 Mil	EUR

# Appendix

## Historical Medalist Rating —

Dec 2025	Nov 2025	Oct 2025	Sep 2025	Aug 2025	Jul 2025	Jun 2025	May 2025	April 2025	March 2025	Feb 2025	Jan 2025
											 Silver
Dec 2024	Nov 2024	Oct 2024	Sep 2024	Aug 2024	Jul 2024	Jun 2024	May 2024	April 2024	March 2024	Feb 2024	Jan 2024
 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver
Dec 2023	Nov 2023	Oct 2023	Sep 2023	Aug 2023	Jul 2023	Jun 2023	May 2023	April 2023	March 2023	Feb 2023	Jan 2023
 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Silver	 Bronze

## Total Firm Assets and Investment Flows 30 Nov 2024

Total Net Assets (USD Bil)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Q1	0.62	0.72	0.71	0.98	0.87	0.90	0.68	0.67	0.70	0.79	—
Q2	0.68	0.70	0.80	1.00	0.88	0.83	0.70	0.63	0.71	0.83	—
Q3	0.69	0.71	0.84	0.95	0.81	0.74	0.68	0.54	0.70	0.91	—
Q4	0.71	0.68	0.89	0.87	0.83	0.75	0.66	0.64	0.77	0.32	—
Net Flows (USD Mil)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	YTD
Q1	20.40	-17.69	5.17	82.10	-5.45	84.85	-72.80	16.21	32.65	19.65	—
Q2	43.81	4.01	41.46	73.01	-12.99	-159.20	-4.68	33.88	-11.41	28.06	—
Q3	31.89	-13.08	8.16	-45.78	-34.43	-114.00	-4.48	-12.67	5.72	19.53	—
Q4	30.93	1.41	19.99	-38.22	-24.42	-94.07	-5.08	4.69	1.59	25.93	—



## Standardized and Tax Adjusted Returns Disclosure Statement

The performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment will fluctuate; thus an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance may be lower or higher than return data quoted herein. For performance data current to the most recent month-end please visit <http://advisor.morningstar.com/familyinfo.asp>

An investment in a money-market vehicle is not insured or guaranteed by the FDIC or any other government agency. The current yield quotation reflects the current earnings of the money market more closely than the total return quotation. Although money markets seek to preserve the value of your investment at \$1.00 per share, it is possible to lose money by investing in them.

Standardized Returns assume reinvestment of dividends and capital gains. They depict performance without adjusting for the effects of taxation, but are adjusted to reflect sales charges and ongoing fund expenses.

If adjusted for taxation, the performance quoted would be significantly reduced. For variable annuities, additional expenses will be taken into account, including M&E risk charges, fund-level expenses such as management fees and operating fees, contract-level administration fees, and charges such as surrender, contract, and sales charges.

After-tax returns are calculated using the highest individual federal marginal income tax rates, and do not reflect the impact of state and local taxes. Actual after-tax returns depend on the investor's tax situation and may differ from those shown. The after-tax returns shown are not relevant to investors who hold their fund shares through tax-deferred arrangements such as 401(k) plans or an IRA. After-tax returns exclude the effects of either the alternative minimum tax or phase-out of certain tax credits. Any taxes due are as of the time the distributions are made, and the taxable amount and tax character of each distribution are as specified by the fund on the dividend declaration date. Due to foreign tax credits or realized capital losses, after-tax returns may be greater than before-tax returns. After-tax returns for exchange-traded funds are based on net asset value.

### Annualized Returns 12-31-2024

Standardized Returns (%)	7-day Yield		1Yr	5Yr	10Yr	Since Inception	Inception Date	Max Front Load %	Max Back Load %	Net Exp Ratio %	Gross Exp Ratio %	Max Redemption %
	Subsidized	Unsubsidized										
Cartesio X FI	—	—	8.58	3.71	2.70	4.01	02-24-2004	0.00	0.00	—	—	0.00
<b>Bloomberg US Agg Bond TR USD</b>			<b>1.25</b>	<b>-0.33</b>	<b>1.35</b>	<b>6.50</b>	<b>01-03-1980</b>					
<b>MSCI EAFE NR USD</b>			<b>3.82</b>	<b>4.73</b>	<b>5.20</b>	<b>8.31</b>	<b>03-31-1986</b>					
<b>Morningstar EU Cau Tgt Alloc NR EUR</b>			<b>4.47</b>	<b>0.52</b>	<b>1.67</b>	<b>3.49</b>	<b>06-30-2020</b>					
<b>S&amp;P 500 TR USD</b>			<b>25.02</b>	<b>14.53</b>	<b>13.10</b>	<b>11.12</b>	<b>01-30-1970</b>					
<b>USTREAS T-Bill Auction Ave 3 Mon</b>			<b>5.28</b>	<b>2.63</b>	<b>1.86</b>	<b>3.87</b>	<b>02-28-1941</b>					

### Return after Tax (%)

	On Distribution				Inception Date	On Distribution and Sales of Shares			
	1Yr	5Yr	10Yr	Since Inception		1Yr	5Yr	10Yr	Since Inception
Cartesio X FI	—	—	—	—	02-24-2004	—	—	—	—

## Disclosure Statement

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Unless otherwise specified, the definition of "funds" used throughout this Disclosure Statement includes closed-end funds, exchange-traded funds, grantor trusts, index mutual funds, open-ended mutual funds, collective investment trust funds, and unit investment trusts. It does not include exchange-traded notes or exchange-traded commodities. The definition of "managed investment" includes funds, variable annuity or variable life subaccounts, separate accounts, and models.

Prior to 2016, Morningstar's methodology evaluated open end mutual funds and exchange-traded funds as separate groups. Each group contained a subset of the current investments included in our current comparative analysis. In this report, historical data presented on a calendar-year basis and trailing periods ending at the most recent month-end reflect the updated methodology.

Risk measures (such as alpha, beta, r-squared, standard deviation, mean, or Sharpe ratio) are calculated for securities or portfolios that have at least a three-year history.

Most Morningstar rankings do not include any adjustment for one-time sales charges, or loads. Morningstar does publish load-adjusted returns and ranks such returns within a Morningstar Category in certain reports. The total returns for ETFs and fund share classes without one-time loads are equal to Morningstar's calculation of load-adjusted returns. Share classes that are subject to one-time loads relating to advice or sales commissions have their returns adjusted as part of the load-adjusted return calculation to reflect those loads.

### Comparison of Fund Types

Funds, including closed-end funds, exchange-traded funds (ETFs), money market funds, open-end funds, and unit investment trusts (UITs), have many similarities, but also many important differences. In general, publicly offered funds are investment companies registered with the Securities and Exchange Commission under the Investment Company Act of 1940, as amended. Funds pool money from their investors and manage it according to an investment strategy or objective, which can vary greatly from fund to fund. Funds have the ability to offer diversification and professional management, but also involve risk, including the loss of principal.

A closed-end fund is an investment company, which typically makes one public offering of a fixed number of shares. Thereafter, shares are traded on a secondary market. As a result, the secondary market price may be higher or lower than the closed-end fund's net asset value (NAV). If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. A closed-end mutual fund's expense ratio is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. Closed-end funds may also have 12b-1 fees. Income distributions and capital gains of the closed-end fund are subject to income tax, if held in a taxable account.

An ETF is an investment company that typically has an investment objective of striving to achieve a similar return as a particular market index. The ETF will invest in either all or a representative sample of the securities included in the index it is seeking to imitate. Like closed-end funds, an ETF can be traded on a secondary market and thus have a market price that may be higher or lower than its net asset value. If these shares trade at a price above their NAV, they are said to be trading at a premium. Conversely, if they are trading at a price below their NAV, they are said to be trading at a discount. ETFs are not actively managed, so their value may be affected by a general decline in the U.S. market segments relating to their underlying indexes. Similarly, an imperfect match between an ETF's holdings and those of its underlying index may cause its performance to vary from that of its underlying index. The expense ratio of an ETF is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. ETFs do not have 12b-1 fees or sales loads. Capital gains from funds held in a taxable account are subject to income tax. In many, but not all cases, ETFs are generally considered to be more tax-efficient when compared to similarly invested mutual funds.

Holding company depository receipts (HOLDRs) are similar to ETFs, but they focus on narrow industry groups. HOLDRs initially own 20 stocks, which are unmanaged, and can become more concentrated due to mergers, or the disparate performance of their holdings. HOLDRs can only be bought in 100-share increments. Investors may exchange shares of a HOLDR for its underlying stocks at any time.

A money-market fund is an investment company that invests in commercial paper, banker's acceptances, repurchase agreements, government securities, certificates of deposit and other highly liquid securities, and pays money market rates of interest. Money markets are not FDIC-insured, may lose money, and are not guaranteed by a bank or other financial institution.

An open-end fund is an investment company that issues shares on a continuous basis. Shares can be purchased from the open-end mutual fund itself, or through an intermediary, but cannot be traded on a secondary market,

such as the New York Stock Exchange. Investors pay the open-end mutual fund's current net asset value plus any initial sales loads. Net asset value is calculated daily, at the close of business. Open-end mutual fund shares can be redeemed, or sold back to the fund or intermediary, at their current net asset value minus any deferred sales loads or redemption fees. The expense ratio for an open-end mutual fund is an annual fee charged to a shareholder. It includes operating expenses and management fees but does not take into account any brokerage costs. Open-end funds may also have 12b-1 fees. Income distributions and capital gains of the open-end fund are subject to income tax, if held in a taxable account.

A unit investment trust (UIT) is an investment company organized under a trust agreement between a sponsor and trustee. UITs typically purchase a fixed portfolio of securities and then sell units in the trust to investors. The major difference between a UIT and a mutual fund is that a mutual fund is actively managed, while a UIT is not. On a periodic basis, UITs usually distribute to the unit holder their pro rata share of the trust's net investment income and net realized capital gains, if any. If the trust is one that invests only in tax-free securities, then the income from the trust is also tax-free. UITs generally make one public offering of a fixed number of units. However, in some cases, the sponsor will maintain a secondary market that allows existing unit holders to sell their units and for new investors to buy units. A one-time initial sales charge is deducted from an investment made into the trust. UIT investors may also pay creation and development fees, organization costs, and/or trustee and operation expenses. UIT units may be redeemed by the sponsor at their net asset value minus a deferred sales charge and sold to other investors. UITs have set termination dates, at which point the underlying securities are sold and the sales proceeds are paid to the investor. Typically, a UIT investment is rolled over into successive trusts as part of a long-term strategy. A rollover fee may be charged for the exercise of rollover purchases. There are tax consequences associated with rolling over an investment from one trust to the next.

### Comparison of Other Managed Investment Types

Variable annuities are tax-deferred investments structured to convert a sum of money into a series of payments over time. Variable annuity policies have limitations and are not viewed as short-term liquid investments. An insurance company's fulfillment of a commitment to pay a minimum death benefit, a schedule of payments, a fixed investment account guaranteed by the insurance company, or another form of guarantee depends on the claims-paying ability of the issuing insurance company. Any such guarantee does not affect or apply to the investment return or principal value of the separate account and its subaccount. The financial ratings quoted for an insurance company do not apply to the separate account and its subaccount. The insurance company offering a variable contract will charge several fees to investors, including annual contract charges that compensate the insurance company for the cost of maintain-

ing and administering the contract, mortality and expense risk (M&E Risk) charges based on a percentage of a sub-account's assets to cover costs associated with mortality and expense risk, and administration fees that are based on a percentage of a subaccount's assets to cover the costs involved in offering and administering the subaccount. A variable annuity investor will also be charged a front-end load by the insurance company on their initial contribution, ongoing fees related to the management of the fund, and surrender charges if the investor makes a withdrawal prior to a specified time. If the variable annuity subaccount is invested in a money-market fund, the money market fund is not FDIC-insured, may lose money, and is not guaranteed by a bank or other financial institution.

Variable life insurance is a cash-value life insurance that has a variable cash value and/or death benefit depending on the investment performance of the subaccount into which premium payments are invested. Unlike traditional life insurance, variable life insurance has inherent risks associated with it, including market volatility, and is not viewed as a short-term liquid investment. For more information on a variable life product, including each sub-account, please read the current prospectus. Please note, the financial ratings noted on the report are quoted for an insurance company and do not apply to the separate account and its subaccount.

A separate account is a portfolio of securities (such as stocks, bonds, and cash) that follows a specified investment strategy and is managed by an investment professional. The securities in the portfolio are directly owned by the separate account's owner. Separate accounts are unregistered investment vehicles; therefore, they do not have the same performance and holding reporting responsibilities that registered securities have. Separate account performance data is reported to Morningstar from the investment manager as a composite of similarly managed portfolios. As such, investors in the same separate account may have slightly different portfolio holdings because each investor has customized account needs, tax considerations and security preferences. The method for calculating composite returns can vary. The composite performance for each separate account manager may differ from actual returns in specific client accounts during the same period for a number of reasons. Different separate account managers may use different methods in constructing or computing performance figures. Thus, performance and risk figures for different separate account managers may not be fully comparable to each other. Likewise, performance and risk information of certain separate account managers may include only composites of larger accounts, which may or may not have more holdings, different diversification, different trading patterns and different performance than smaller accounts with the same strategy. Finally, composite performance of the separate account offered by the money manager may or may not reflect the reinvestment of dividends and capital gains. Gross returns are collected on a monthly and quarterly basis for separate accounts and com-

mingled pools. This information is collected directly from the asset management firm running the product(s). Morningstar calculates total returns, using the raw data (gross monthly and quarterly returns), collected from these asset management firms. The performance data reported by the separate account managers will not represent actual performance net of management fees, brokerage commissions or other expenses. Management fees as well as other expenses a client may incur will reduce individual returns for that client. Because fees are deducted regularly, the compounding effect will increase the impact of the fee deduction on gross account performance by a greater percentage than that of the annual fee charged. For example, if an account is charged a 1% management fee per year and has gross performance of 12% during that same period, the compounding effect of the quarterly fee assessments will result in an actual return of approximately 10.9%. Clients should refer to the disclosure document of the separate account manager and their advisor for specific information regarding fees and expenses. The analysis in this report may be based, in part, on adjusted historical returns for periods prior to an insurance group separate account's (IGSA's) actual inception. When pre-inception data are presented in the report, the header at the top of the report will indicate this and the affected data elements will be displayed in italics. These calculated returns reflect the historical performance of the oldest share class of the underlying fund, adjusted to reflect the management fees of the current IGSA. While the inclusion of pre-inception data provides valuable insight into the probable long-term behavior of an IGSA based on the underlying fund's performance, investors should be aware that an adjusted historical return can only provide an approximation of that behavior. These adjusted historical returns are not actual returns. Calculation methodologies utilized by Morningstar may differ from those applied by other entities, including the IGSA itself. Morningstar % Rank within Morningstar Category does not account for a separate account's sales charge (if applicable).

A model, as defined by Morningstar, is a portfolio of securities (such as mutual funds, ETFs, and cash) created by a model manager (such as a broker-dealer, investment adviser, or asset manager) that is distributed through centralized platforms to various types of investors or financial professionals. Models are not created with regard to the investment objectives, financial situation, or particular needs of any specific investor and therefore will not be suitable for everyone. A model is intended to provide information to assist investors in making their own investment decisions; investors must exercise their own independent judgment as to the suitability of a model and its holdings in light of their own investment objectives, experience, taxation status, and financial position. Model managers do not guarantee the performance of a model or its underlying holdings, or that a model's objective will be achieved. An investor using a model can incur a loss. Unless the model manager and an investor enter in an agreement stating otherwise, the model manager is not responsible for an investor's decision to invest in accord-

ance with a model, the suitability of the model for a specific investor, or trading decisions, and does not manage or have access to the investor account. Instead, the investor (or their financial professional) chooses whether and how to implement the model and is ultimately responsible for related investment decisions. If an investor chooses to invest in accordance with a model, the securities in the account are directly owned by the investor.

A collective investment trust (CIT) may also be called a commingled or collective fund. CITs are tax-exempt, pooled investment vehicles maintained by a bank or trust company exclusively for qualified plans, including 401(k)s, and certain types of government plans. CITs are unregistered investment vehicles subject to banking regulations of the Office of the Comptroller of the Currency (OCC), which means they are typically less expensive than other investment options due to lower marketing, overhead, and compliance-related costs. CITs are not available to the general public but are managed only for specific retirement plans.

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The performance data given represents past performance and should not be considered indicative of future results. Principal value and investment return will fluctuate, so that an investor's shares, when sold, may be worth more or less than the original investment. Managed investment portfolio statistics change over time. Funds are not FDIC-insured, may lose value, and are not guaranteed by a bank or other financial institution.

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### Pre-Inception Returns

The analysis in this report may be based, in part, on adjusted historical returns for periods prior to the inception of the share class of the fund shown in this report ("Report Share Class"). If pre-inception returns are shown, a performance stream consisting of the Report Share Class and older share class(es) is created. Morningstar adjusts pre-inception returns downward to reflect higher expenses in the Report Share Class, we do not hypothetically adjust returns upwards for lower expenses. For more information regarding calculation of pre-inception re-

turns please see the Morningstar Extended Performance Methodology.

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#### Economic Moat

An economic moat is a structural feature that Morningstar believes positions a firm to sustain excess profits over a long period of time, with excess profits defined as returns on invested capital above our estimate of a firm's cost of capital. The economic moat rating is not an indicator of the investment performance of the investment highlighted in this report. Narrow moat companies are those Morningstar believes are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which Morningstar believes excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. Firms without a moat, including those that have a substantial threat of value destruction related risks related to ESG, industry disruption, financial health, or other idiosyncratic issues, are more susceptible to competition. Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

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## Data Definitions

### 12 Month Yield %

12 Month Yield % is derived by summing the trailing 12-months' income distributions and dividing the sum by the last month's ending NAV, plus any capital gains distributed over the same period. Income refers only to interest payments from fixed-income securities and dividend payoffs from common stocks.

### 12b1 Expense %

A 12b-1 fee is a fee used to pay for a fund's distribution costs. It is often used as a commission to brokers for selling the fund. The amount of the fee is taken from a fund's returns.

### 30-Day SEC Yield

The 30-day SEC Yield is a calculation based on a 30-day period ending on the last day of the previous month. It is computed by dividing the net investment income per share earned during the period by the maximum offering price per share on the last day of the period. The figure listed lags by one month. When a dash appears, the yield available is more than 30 days old. This information is taken from fund surveys.

### 30-Day Unsubsidized Yield

The 30-day Unsubsidized Yield is computed under a SEC standardized formula based on net income earned over the past 30 days. It excludes contractual expense reimbursements, resulting in a lower yield.

### Alpha

Alpha is a measure of the difference between a security or portfolio's actual returns and its expected performance, given its level of risk (as measured by beta.) Alpha is often seen as a measure of the value added or subtracted by a portfolio manager.

### Analyst-Driven %

The Analyst-Driven % data point displays the weighted percentage of a vehicle's pillar ratings assigned directly or indirectly by analysts. For example, if the People and Parent ratings are assigned directly or indirectly by analysts but the Process rating is assigned algorithmically, the Analyst-Driven % for an actively managed vehicle would disclose that 55% of the pillar weight was assigned by analysts and the Analyst-Driven % for a passively managed vehicle would disclose that 20% of the pillar weight was assigned by analysts.

### Asset Allocation

Asset Allocation reflects asset class weightings of the portfolio. The "Other" category includes security types that are not neatly classified in the other asset classes, such as convertible bonds and preferred stocks, or cannot be classified by Morningstar as a result of missing data. Morningstar may display asset allocation data in several ways, including tables or pie charts. In addition, Morningstar may compare the asset class breakdown of the managed investment against its three-year average,

category average, and/or index proxy.

Asset allocations shown in tables may include a breakdown among the long, short, and net (long positions net of short) positions. These statistics summarize what the managed investment's managers are buying and how they are positioning the managed investment's portfolio. When short positions are captured in these portfolio statistics, investors get a more robust description of the managed investment's exposure and risk. Long positions involve buying the security outright and selling it later, with the hope the security's price rises over time. Short positions are taken with the hope of benefitting from anticipated price declines. The investor borrows the security from another investor, sells it and receives cash, and then is obligated to buy it back at some point in the future. If the price falls after the short sale, the investor will have sold high and can buy low to close the short position and lock in a profit. However, if the price of the security increases after the short sale, the investor will experience a loss buying it at a higher price than the sale price.

Most managed investment portfolios hold fairly conventional securities, such as long positions in equities and bonds. Morningstar may generate a colored pie chart for these portfolios. Other portfolios use other investment strategies or securities, such as short positions or derivatives, in an attempt to reduce transaction costs, enhance returns, or reduce risk. Some of these securities and strategies behave like conventional securities, while other have unique return and risk characteristics. Portfolios that incorporate investment strategies resulting in short positions or portfolio with relatively exotic derivative positions often report data to Morningstar that does not meet the parameters of the calculation underlying a pie chart's generation. Because of the nature of how these securities are reported to Morningstar, we may not always get complete portfolio information to report asset allocation. Morningstar, at its discretion, may determine if unidentified characteristics of managed investment holdings are material. Asset allocation and other breakdowns may be rescaled accordingly so that percentages total to 100 percent. (Morningstar used discretion to determine if unidentified characteristics of managed investment holdings are material, pie charts and other breakdowns may rescale identified characteristics to 100% for more intuitive presentation.)

Note that all other portfolio statistics presented in this report are based on the long (or long rescaled) holdings of the managed investment only.

### Asset Class Breakdown

The asset class breakdown section shows the amount and percentage of assets by asset class for managed investments associated with a Parent Company.

### Attribution Statistics

Total attribution, or excess return, is the difference between the managed investment and category index

performance figures. Morningstar separates a managed investment's total attribution into several factors known as attribution effects. The primary effects are: sector weightings, country weightings, security selection, and fees. Sector weightings effect refers to the portion of a managed investment's value- add attributable to the managed investment manager's decision on how much to allocate to each Morningstar Global Equity Sector (a managed investment manager's decision to have an overweighting or an underweighting in certain sectors compared with the benchmark). For managed investments in the international-stock categories, country weightings effect is provided to measure the impact of a managed investment's country allocation as a secondary decision, based on the Morningstar Country classification. In this case, a managed investment manager's decision to have an overweighting or an underweighting in certain countries within each sector is evaluated. Security selection effect represents the portion of performance attributable to the managed investment manager's stock- picking skill. Fee effect represents the impact of managed investment expense ratio on excess return. Morningstar attribution analysis primarily focuses on these four attribution effects. There are two remaining effects, known as interaction and residual, in order for the total attribution to be the sum of the effects. The interaction effect, as its name suggests, is the interaction between the combination of sector weightings and country weightings relative to the security selection effects, and it does not represent an explicit decision of the managed investment manager and is thus not considered a primary focus of Morningstar attribution analysis. The residual effect is the portion of return that cannot be explained by the equity and cash- holdings composition at the beginning of the analysis period.

If a managed investment holds another managed investment as part of its holdings (such as when a mutual fund holds an exchange-traded fund or another mutual fund), the calculation will drill down to the individual security holdings of the underlying managed investment for analysis. The following securities are excluded from the attribution analysis, and the remaining holdings are rescaled to 100% when performing attribution analysis.

- Nonequity securities (except cash, which is included as a standalone sector).
- Unidentified or unrecognized securities. These are securities Morningstar is not able to identify.
- Unclassified securities. These are securities that are missing sector or country classification.
- Missing performance. These are securities that are missing returns for the month; they are excluded from that monthly attribution calculation.

Ranking is provided for three-year attribution statistics. Each managed investment is ranked against its peers in the same Morningstar Category.

#### Average Effective Duration

Average Effective Duration is a weighted average of the effective durations of fixed income and certain derivative

holdings. The portfolio average is computed by weighting each holding effective duration by the market value of the holding (notional value for derivatives) and then averaging by the sum of holding values. Effective duration is a measure of price elasticity relative to change in yield which accounts for the impact of redemption options on return of principal. It is expressed as a factor which represents the percentage change in value that is expected for a specific unit change in yield.

#### Average Effective Maturity

Average Effective Maturity is a weighted average of the length of time, measured in years, until return of principal can be reasonably expected for debt securities, and is computed by weighting each holding effective maturity term by the market value of the holding and then averaging by the sum of holding values. The effective maturity may be the nominal maturity date, the next put date, the average life of a sinking fund, the weighted average life of an amortizing prepayment, or a proxy maturity date for perpetual securities. NOTE: Effective Maturity is measured only for holdings which have a principal value or reference a security with a principal value and exclude many derivatives.

#### Average Market Capitalization

Average Market Capitalization is a measure of the size of the companies in which a portfolio invests.

#### Average Weighted Coupon

Average weighted Coupon is the weighted average of the rates of interest paid of the fixed income and certain derivative securities in a portfolio. The average is computed by weighting each holding price by the market value of the holding and then averaging by the sum of holding values. For securities which pay no periodic interest but accrete in value at an assigned interest rate, (e.g. zero coupons), the value of the coupon is 0%. For non-periodic instruments which pay interest at maturity, (e.g. short-term bills/notes), the interest rate at issuance is assigned as the coupon rate.

#### Beta

Beta is a measure of a security or portfolio's sensitivity to market movements (proxied using an index.) A beta of greater than 1 indicates more volatility than the market, and a beta of less than 1 indicates less volatility than the market.

#### Book Value Growth %

Book value is the estimation of the book value growth for a stock. This is calculated by averaging the book-value growth rate per share of the stock for up to the previous four years. A managed investment's book value % is calculated by taking an asset-weighted average of the book value of all the stocks in the portfolio.

#### Cash Flow Growth %

Cash Flow Growth is the estimation of the cash flow growth for a stock. This is calculated by averaging the cash flow growth rate per share of the stock for up to the previous four years. A managed investment's cash flow

growth % is calculated by taking a share-weighted average of the cash flow of all the stocks in its portfolio.

#### Cash Return %

Cash return is calculated by dividing the company's free cash flow by its enterprise value, or market capitalization, plus net debt. This number tells you what cash return you would get if you bought the entire company, including its debt.

#### Company ESG Score Description

The ESG Score Description ranks the company-level ESG Risk Score for companies against their Sustainability peer group. The ESG Score Description is depicted as a range from Negligible to Severe, where Negligible equals a company that scores well below average relative to its peer group and Severe equals a company that scores well above average relative to its peer group. Breakpoints for the score description are established annually by determining how company scores fall into the following ranges within a peer group:

Negligible	Highest 5%
Low	Next 11%
Medium	Next 68%
High	Next 11%
Severe	Lowest 5%

Each month, a company's ESG Risk Score is compared to its peer group breakpoints and assigned a company score description. Morningstar lists the ESG Score Description for the largest holdings underlying a managed investment's portfolio.

#### Cost Illustration

The cost illustration chart provides an example of the fees you would pay over a one-, five-, or ten-year holding period for a \$10,000 investment in the managed investment, and assumes you redeem all of your shares at the end of the period. The example assumes that investment earns a 5.00% return, and that the investment's operating expenses remain the same. Fees may be paid by you in a variety of ways: when you purchase a managed investment; by direct withdrawal from your account during the time you own a managed investment; or when you sell the managed investment.

The cost illustration is designed to provide information to help you assess the importance of fees and expenses, and to understand how changes in your holding period may impact your investment. Assumptions and calculations applied in this analysis are critical to the outcomes shown in the cost illustration.

The fee projection analysis was generated using a managed investment, investment amount, and hypothetical rate of return. It is important that these assumptions be accurate estimations, as they are key inputs that impact the fee projection analysis. Applicable front-end charges were assessed at the point of purchase and deferred charges and redemption fees, when applicable, were assessed at the point of sale. The

analysis does not account for reinvestment of any applicable dividends or capital gains.

The information generated in the cost illustration is hypothetical in nature and assumes the managed investment's returns and expenses remain the same each year. Because returns and expenses vary over time, an investor's actual returns and expenses may be higher or lower. The hypothetical rate of return used in this analysis should not be considered indicative of future results. Actual results may differ substantially from that shown here. Principal value and investment return will fluctuate, so that your shares of securities, when redeemed, may be worth more or less than your original investment, and may include a possible loss of your principal.

Morningstar uses the Prospectus Net Expense Ratio in its ongoing fees, fee level, and ranking calculations for most funds. However, the Annual Report Net Expense Ratio is used for closed-end funds because prospectuses are published infrequently.

Purchase fees and expenses are those costs incurred by an investor when they buy shares of a fund. Such fees and expenses may include front-end loads and/or trading commissions.

Redemption fees and expenses are those costs incurred by an investor when they sell shares of a fund.

Ongoing fees and expenses are those costs an investor incurs while holding shares of a fund. Such expenses may include asset-based fees and operating and management fees.

### Credit Quality

The credit quality breakdowns are shown for corporate bond holdings and depict the quality of bonds in the underlying portfolio. The report shows the percentage of fixed-income securities that fall within each credit-quality rating as assigned by a NRSRO. Bonds not rated by an NRSRO are included in the not-rated category.

### Credit Quality Breakdown

Displays the weighted distribution of holdings by credit rating symbol categories. The percentage for each rating category is computed by weighting each holding's credit rating by the market value of the holding and then averaging by the sum of holding values. For holdings that have more than one credit rating the ratings will be combined and an average rating for the holding will be computed. The distribution is based upon available credit ratings from recognized credit rating agencies such as a Nationally Recognized Statistical Rating Organization (NRSRO) in the U.S. (For a list of all NRSROs, please visit <https://www.sec.gov/ocr/ocr-current-nrsros.html>) The categories are based on the rating scale produced by Morningstar Credit Ratings, LLC and range from AAA, indicating the highest level of credit quality, to D, indicating a security which has defaulted on its payment obligations. Holdings for which no credit rating is available are assigned to a "Not Rated", or "NR" category. Morningstar

calculates Long, Short, and Net values.

### Current Yield

Current yield is derived by taking the ratio of a bond's annual interest payment to the current price.

### Data Coverage %

The Data Coverage % data point is a summary metric describing the level of data completeness used to generate the overall rating. If the pillar is assigned directly or indirectly by analysts, the pillar has complete data availability, as no model was used to estimate the pillar score. If the pillar is assigned directly by algorithm, Morningstar counts the number of data points feeding both the positive and negative models and counts whether the vehicle has strategy-specific data available. A simple percentage is calculated per pillar. The overall data coverage % is then scaled by pillar weights.

### D/C Ratio

The debt-to-capital ratio for a managed investment's underlying stock holdings is calculated by dividing each security's long-term debt by its total capitalization (the sum of common equity plus preferred equity and long-term debt) and is a measure of the company's financial leverage.

All else being equal, stocks with high D/C ratios are generally riskier than those with low D/C ratios. Note that debt-to-capital figures can be misleading owing to accounting conventions.

Because balance sheets are based on historic cost accounting, they may bear little resemblance to current market values. Morningstar aggregates debt-to-capital figures for managed investments using a median methodology, whereby domestic stocks are ordered from highest to lowest based on their D/C ratios. One adds up the asset weighting of each holding until the total is equal to or greater than half of the total weighting of all domestic stocks in the managed investment. The debt/total cap for that stock is then used to represent the debt/total cap of the total portfolio.

### Deferred Load %

The back-end sales charge or deferred load is imposed when an investor redeems shares of a managed investment. The percentage of the load charged generally declines the longer the managed investment's shares are held by the investor. This charge, coupled with 12b-1 fees, commonly serves as an alternative to a traditional front-end load.

### Dividend Yield %

The dividends per share of the company over the trailing one-year period as a percentage of the current stock price.

### Downside Capture Ratio %

Downside Capture Ratio measures a managed investment's performance in down markets. A down market is defined as those periods (months or quarters) in which market return is less than 0. In essence, it tells you what percentage of the down market was captured by

the managed investment. For example, if the ratio is 110%, the managed investment captured 110% of the down market and therefore underperformed the market on the downside.

### ESG Risk Score %

Sustainalytics' ESG Risk Ratings are designed to help investors identify and understand financially material ESG risks at the security and portfolio level. The ESG Risk Ratings are based on a two-dimensional materiality framework that measures a company's exposure to industry-specific material risks and how well a company is managing those risks. ESG Risk Ratings are categorized across five risk levels: negligible, low, medium, high and severe. Ratings scale is from 0-100, with 100 being the most severe.

### Expense Ratio %

The expense ratio is the annual fee that all funds charge their shareholders. It expresses the percentage of assets deducted each fiscal year for fund expenses, including 12b-1 fees, management fees, administrative fees, operating costs, and all other asset-based costs incurred by the fund. Portfolio transaction fees, or brokerage costs, as well as front-end or deferred sales charges are not included in the expense ratio. The expense ratio, which is deducted from the fund's average net assets, is accrued on a daily basis. The gross expense ratio, in contrast to the net expense ratio, does not reflect any fee waivers in effect during the time period.

### Fee Level

Morningstar Fee Level puts the expenses of the managed investment in context by showing the range of fees charged by its peers. An overall Fee Level for the managed investment is shown, along with breakpoints for five quintiles of Fee Levels for the managed investment's peer group. Morningstar defines Fee Level peer groups by combining some categories with similar expected expenses, such as large value, large blend, and large growth, then segmenting the category group by distribution class of front-load, deferred-load, level-load, no-load, or institutional to provide more-relevant fee comparisons.

### Fee Quintile Breakdown

The fee quintile breakdown section sums the percentage of share classes associated with a Parent Company that has a Morningstar Fee Level—Distribution of Low, Below Average, Average, Above Average, and High.

### Financial Health

One of the three quantitative grades that Morningstar assigns to each stock as a quick way to get a handle on its fundamentals. To get a good grade in this area, a company should have low financial leverage (assets/equity), high cash-flow coverage (total cash flow/long-term debt), and a high cash position (cash/assets) relative to its sector.

### Free Cash Flow Yield

Equal to operating cash flow minus capital spending. Free



cash flow represents the cash a company has left over after investing in the growth of its business. Young, aggressive companies often have negative free cash flow, because they're investing heavily in their futures. As companies mature, though, they should start generating free cash flow.

#### Front-end Load %

The initial sales charge or front-end load is a deduction made from each investment in the fund and is generally based on the amount of the investment.

#### Growth

The Morningstar Growth Grade is based on the trend in revenue per share using data from the past five years. For the purpose of calculating revenue per share we use the past five years' revenue figures and corresponding yearend fully diluted shares outstanding; if year-end fully diluted shares outstanding is not available, we calculate this figure by dividing the company's reported net income applicable to common shareholders by the reported fully diluted earnings per share. A company must have a minimum of four consecutive years of positive and non-zero revenue, including the latest fiscal year, to qualify for a grade.

In calculating the revenue per share growth rate, we calculate the slope of the regression line of historical revenue per share. We then divide the slope of the regression line by the arithmetic average of historical revenue per share figures. The result of the regression is a normalized historical increase or decrease in the rate of growth for sales per share. We then calculate a z-score by subtracting the universe mean revenue growth from the company's revenue growth and dividing by the standard deviation of the universe's growth rates.

Stocks are sorted based on the z-score of their revenue per share growth rate calculated above, from the most negative z-score to the most positive z-score. Stocks are then ranked based on their z-score from 1 to the total number of qualified stocks. We assign grades based on this ranking.

#### Growth of 10,000

For managed investments, this graph compares the growth of an investment of 10,000 (in the base currency of the managed investment) with that of an index and/or with that of the average for all managed investments in its Morningstar Category. The total returns are not adjusted to reflect sales charges or the effects of taxation but are adjusted to reflect actual ongoing expenses, and they assume reinvestment of dividends and capital gains. If adjusted, effects of sales charges and taxation would reduce the performance quoted. If pre-inception data is included in the analysis, it will be graphed.

The index in the Growth of 10,000 graph is an unmanaged portfolio of specified securities and cannot be invested in directly. The index does not reflect any initial or ongoing expenses. A managed investment's portfolio may differ significantly from the securities in the

index. The index is chosen by Morningstar.

#### Historical Earnings %

The historical earnings % is an estimation of the historical earnings growth for a stock. This is calculated by averaging the earnings-growth rate per share of the stock for up to the previous four years. A managed investment's historical earnings % is calculated by taking an asset-weighted average of the historical earnings of all the stocks in the portfolio.

#### Index Return %

Index Return % measures the relevant index's annualized return for a specified time period.

#### Long-Term Earnings Growth %

Long-Term Earnings Growth is the estimation of the long-term earnings growth forecast of a stock. This is collected as a third-party estimate. A managed investment's long-term earnings % is calculated by taking an asset-weighted average of the long-term earnings of all the stocks in the portfolio.

#### Manager Ownership

Manager ownership sums the percentage of assets in managed investments with maximum manager ownership levels of more than \$1 million, \$500,001 to \$1 million, \$100,001 to \$500,000, \$50,001 to \$100,000, \$10,001 to \$50,000, \$1 to \$10,000, and \$0, as well as no data on manager ownership.

#### Manager Tenure

Manager tenure sums the percentage of assets in managed investments with longest-tenured manager stays of 0-3 years, 3-6 years, 6-9 years, 9-12 years, 12-15 years, and more than 15 years.

#### Management Fees %

The management fee includes the management and administrative fees listed in the Management Fees section of a fund's prospectus. Typically, these fees represent the costs shareholders paid for management and administrative services over the fund's prior fiscal year.

#### Maximum Drawdown %

Maximum Drawdown measures the peak-to-trough decline during a specific record period of a managed investment. It is usually quoted as the percentage between the peak and trough.

#### Morningstar Category

Morningstar Category is assigned by placing managed investments into peer groups based on their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a managed investment's prospectus may not be sufficiently detailed for our proprietary classification methodology. Managed investments are placed in a category based on their portfolio statistics and compositions over the past three years. Analysis of performance and other indicative facts are also considered. If the managed investment is new

and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent category assignment. Categories may be changed based on recent changes to the portfolio.

#### Morningstar Economic Moat

An economic moat is a structural feature that Morningstar believes positions a firm to sustain excess profits over a long period of time, with excess profits defined as returns on invested capital above our estimate of a firm's cost of capital. The economic moat rating is not an indicator of the investment performance of the investment highlighted in this report. Narrow moat companies are those Morningstar believes are more likely than not to achieve normalized excess returns for at least the next 10 years. Wide-moat companies are those in which Morningstar believes excess returns will remain for 10 years, with excess returns more likely than not to remain for at least 20 years. Firms without a moat, including those that have a substantial threat of value destruction related risks related to ESG, industry disruption, financial health, or other idiosyncratic issues, are more susceptible to competition. Morningstar has identified five sources of economic moats: intangible assets, switching costs, network effect, cost advantage, and efficient scale.

#### Morningstar Equity Style Box™

The Morningstar Style Box™ reveals a managed investment's investment strategy as of the date noted on this report. For equity managed investments, the vertical axis shows the market capitalization of the long stocks owned, and the horizontal axis shows the investment style (value, blend, or growth.) A darkened cell in the style box indicates the weighted average style of the portfolio.

#### Morningstar ESG Commitment Level

The Morningstar ESG Commitment Level is the summary expression of our analysts' opinion of the strength of the ESG investment program at the asset-manager level.

The date shown next to the Morningstar ESG Commitment Level is the date on which the Morningstar Manager Research analyst assigned or reaffirmed the current assessment for the managed investment based on the analyst's latest review and research report for the managed investment. The Morningstar ESG Commitment Level is reevaluated at least every 18 months.

The Morningstar ESG Commitment Level is not a credit or risk rating. It is a subjective evaluation performed by Morningstar's manager research group, which consists of various Morningstar, Inc. subsidiaries ("Manager Research Group"). In the United States, that subsidiary is Morningstar Research Services LLC, which is registered with the U.S. Securities and Exchange Commission.

The Morningstar ESG Commitment Level scale is Leader, Advanced, Basic, and Low and is based on our analysts' evaluation of a firm's ESG philosophy and process, resources, and active ownership.

For more detailed information about Morningstar ESG Commitment Level, including its methodology, please go to

<http://global.morningstar.com/equitydisclosures>

The Morningstar ESG Commitment Level (i) should not be used as the sole basis in evaluating an investment product, (ii) involves unknown risks and uncertainties which may cause the Manager Research Group's expectations not to occur or to differ significantly from what they expected, and (iii) should not be considered an offer or solicitation to buy or sell the investment product.

### Morningstar Fixed Income Style Box™

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

For portfolios holding fixed-income investments, a Fixed Income Style Box is calculated. The vertical axis shows the credit quality based on credit ratings and the horizontal axis shows interest-rate sensitivity as measured by effective duration. There are three credit categories- "High", "Medium", and "Low; and there are three interest rate sensitivity categories- "Limited", "Moderate", and "Extensive" resulting in nine possible combinations. As in the Equity Style Box the combination of credit and interest rate sensitivity for a portfolio is represented by a darkened cell in the matrix.

Morningstar uses credit rating information from credit rating agencies (CRA's) that have been designated Nationally Recognized Statistical Rating Organizations (NRSRO's) by the Securities and Exchange Commission (SEC) in the United States. For a list of all NRSROs, please visit <https://www.sec.gov/ocr/ocr-learn-nrsros.html> Additionally, Morningstar will use credit ratings from CRA's which have been recognized by foreign regulatory institutions that are deemed the equivalent of the NRSRO designation.

To determine the rating applicable to a holding and the subsequent holding weighted value of a portfolio two methods may be employed. First is a common methodology approach where if a case exists such that two rating organizations/ agencies have rated a holding, the lower rating of the two should be applied; if three or more CRA's have rated a holding the median rating should be applied, and in cases where there are more than two ratings and a median rating cannot be determined the lower of the two middle ratings should be applied. Alternatively, if there is more than one rating available an average can be calculated from all and applied.

Please Note: Morningstar, Inc. is not an NRSRO nor does it issue a credit rating on the managed investment. Credit ratings for any security held in a portfolio may change over time.

Morningstar uses the credit rating information to calculate a weighted-average credit quality value for the portfolio. This value is based only upon those holdings

which are considered to be classified as "fixed income", such as government, corporate, or securitized issues. Other types of holdings such as equities and many, though not all, types of derivatives are excluded. The weighted-average credit quality value is represented by a rating symbol which corresponds to the long-term rating symbol schemas employed by most CRA's. Note that this value is not explicitly published but instead serves as an input in the Style Box calculation. This symbol is then used to map to a Style Box credit quality category of "low," "medium," or "high". Managed investments with a "low" credit quality category are those whose weighted-average credit quality is determined to be equivalent to the commonly used High Yield classification, meaning a rating below "BBB", portfolios assigned to the "high" credit category have either a "AAA" or "AA+" average credit quality value, while "medium" are those with an average rating of "AA" inclusive to "BBB-". It is expected and intended that the majority of portfolios will be assigned a credit category of "medium".

For assignment to an interest-rate sensitivity category Morningstar uses the average effective duration of the portfolio. From this value there are three distinct methodologies employed to determine assignment to category. Portfolios which are assigned to Morningstar municipal-bond categories employ static breakpoints between categories. These breakpoints are "Limited" equal to 4.5 years or less, "Moderate" equal to 4.5 years to less than 7 years, and "Extensive" equal to more than 7 years. For portfolios assigned to Morningstar categories other than U.S. Taxable, including all domiciled outside the United States, static duration breakpoints are also used. The values differ from the municipal category values; "Limited" equals less than or equal to 3.5 years, "Moderate" equals greater than 3.5 years but less than or equal to 6 years, and "Extensive" is assigned to portfolios with effective durations of more than 6 years.

Note: Interest-rate sensitivity for non-U.S. domiciled portfolios (excluding those in Morningstar convertible categories) may be assigned using average modified duration when average effective duration is not available.

For portfolios Morningstar classifies as U.S Taxable Fixed-Income, interest-rate sensitivity category assignment is based on the effective duration of the Morningstar Core Bond Index (MCBI). The classification assignment is dynamically determined relative to the benchmark index value. A "Limited" category will be assigned to portfolios whose average effective duration is between 25% to 75% of MCBI average effective duration, where the average effective duration is between 75% to 125% of the MCBI the portfolio will be classified as "Moderate", and those portfolios with an average effective duration value 125% or greater of the average effective duration of the MCBI will be classified as "Extensive".

### Morningstar Global Category

Morningstar Global Categories are peer groups for managed portfolios domiciled anywhere in the world. The Global Category is assigned by placing managed

investments into peer groups based on the characteristics of their underlying holdings. The underlying securities in each portfolio are the primary factor in our analysis as the investment objective and investment strategy stated in a managed investment's prospectus may not be sufficiently detailed for our proprietary classification methodology. Managed investments are placed in a category based on their portfolio statistics and compositions over the past three years. If the managed investment is new and has no portfolio history, Morningstar estimates where it will fall before giving it a permanent global category assignment. Global categories may be changed based on recent changes to the portfolio. Not all managed investments are available to purchase within your country. Returns- based analysis may not be valid in some circumstances due to the impact of currencies.

### Morningstar Historical Sustainability Score

The Historical Sustainability Score is an exponential weighted moving average of the Portfolio Sustainability Scores over the past 12 months. The process rescales the current Portfolio Sustainability Score to reflect the consistency of the scores. The Historical Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk on a consistent historical basis.

### Morningstar Investor Return

Morningstar Investor Return (also known as "dollar-weighted return") measures how the average investor fared in a fund over a period of time. Investor Return incorporates the impact of cash inflows and outflows from purchases and sales and the growth in fund assets. In contrast to total returns, Investor Returns account for all cash flows into and out of the fund to measure how the average investor performed over time. Investor Return is calculated in a similar manner as internal rate of return. Investor Return measures the compound growth rate in the value of all dollars invested in the fund over the evaluation period. Investor Return is the growth rate that will link the beginning total net assets plus all intermediate cash flows to the ending total net assets.

### Morningstar Medalist Rating™

The Morningstar Medalist Rating is the summary expression of Morningstar's forward-looking analysis of investment strategies as offered via specific vehicles using a rating scale of Gold, Silver, Bronze, Neutral, and Negative. The Medalist Ratings indicate which investments Morningstar believes are likely to outperform a relevant index or peer group average on a risk-adjusted basis over time. Investment products are evaluated on three key pillars (People, Parent, and Process) which, when coupled with a fee assessment, forms the basis for Morningstar's conviction in those products' investment merits and determines the Medalist Rating they're assigned. Pillar ratings take the form of Low, Below Average, Average, Above Average, and High. Pillars may be evaluated via an analyst's qualitative assessment (either directly to a vehicle the analyst covers or indirectly when the pillar ratings of a covered vehicle are mapped

to a related uncovered vehicle) or using algorithmic techniques. Vehicles are sorted by their expected performance into rating groups defined by their Morningstar Category and their active or passive status. When analysts directly cover a vehicle, they assign the three pillar ratings based on their qualitative assessment, subject to the oversight of the Analyst Rating Committee, and monitor and reevaluate them at least every 14 months. When the vehicles are covered either indirectly by analysts or by algorithm, the ratings are assigned monthly. For more detailed information about the Medalist Ratings, including their methodology, please go to

<http://global.morningstar.com/managerdisclosures>

The Morningstar Medalist Ratings are not statements of fact, nor are they credit or risk ratings. The Morningstar Medalist Rating (i) should not be used as the sole basis in evaluating an investment product, (ii) involves unknown risks and uncertainties which may cause expectations not to occur or to differ significantly from what was expected, (iii) are not guaranteed to be based on complete or accurate assumptions or models when determined algorithmically, (iv) involve the risk that the return target will not be met due to such things as unforeseen changes in changes in management, technology, economic development, interest rate development, operating and/or material costs, competitive pressure, supervisory law, exchange rate, tax rates, exchange rate changes, and/or changes in political and social conditions, and (v) should not be considered an offer or solicitation to buy or sell the investment product. A change in the fundamental factors underlying the Morningstar Medalist Rating can mean that the rating is subsequently no longer accurate.

Analysts do not have any other material conflicts of interest at the time of publication. Users wishing to obtain further information should contact their local Morningstar office or refer to the Analyst Conflicts of Interest and Other Disclosures for North America, EMEA, or APAC at:

<http://global.morningstar.com/managerdisclosures>

under Section "Methodology Documents and Disclosures".

### Morningstar Medalist Rating Breakdown

For share classes associated with this parent company and have a Morningstar Medalist Rating, this is the Morningstar Medalist Rating breakdown, based on Asset %. To give investors a sense of the number of share classes analyzed, we're also providing the total number of share classes rated.

### Morningstar Ownership Zone

The Morningstar Ownership Zone provides a graphic representation of the size and investment style of long stocks in managed investment's portfolio. The Ownership Zone is derived by plotting each stock in the portfolio within the Morningstar Style Box™. The Ownership Zone is the shaded area that represents 75% of the assets in

the portfolio and indicates the level of concentration in the holdings. The "centroid" in the middle of the Ownership Zone represents the weighted average of all the holdings. The Ownership Zone helps investors differentiate between portfolios that may otherwise look similar. Investors can also use the Ownership Zone to construct diversified portfolios and model how multiple managed investments complement one another in a portfolio.

### Morningstar Pillar Ratings

Morningstar assigns scores to the People, Process, and Parent Pillars on a -2 to +2 basis. Those scores correspond to the pillar ratings assigned to a vehicle based either on an analyst's qualitative assessment or using algorithmic techniques (as explained in further detail in the "Pillar Evaluation" section of Morningstar Medalist Rating Methodology). The pillar ratings take the form of Low, Below Average, Average, Above Average, and High.

The Morningstar Pillar Rating should not be used as the sole basis in evaluating a managed investment. Morningstar Pillar Ratings involve unknown risks and uncertainties which may cause Morningstar's expectations not to occur or outcomes to differ significantly from what we expected.

### Morningstar Portfolio Sustainability Score

The Morningstar Portfolio Sustainability Score is an asset-weighted average of company-level ESG Risk scores. The Portfolio Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk.

### Morningstar Rank

Morningstar Rank is the total return percentile rank within each Morningstar Category. The highest (or most favorable) percentile rank is zero and the lowest (or least favorable) percentile rank is 100. Historical percentile ranks are based on a snapshot of a managed investment at the time of calculation.

### Morningstar Rating™

The Morningstar Rating™ for funds, or "star rating", is calculated for managed products (including mutual funds, variable annuity and variable life subaccounts, exchange traded funds, closed-end funds, and separate accounts) with at least a three-year history. Exchange-traded funds and open-ended mutual funds are considered a single population for comparative purposes. It is calculated based on a Morningstar Risk-Adjusted Return measure that accounts for variation in a managed product's monthly excess performance, placing more emphasis on downward variations and rewarding consistent performance. The Morningstar Rating does not include any adjustment for sales loads. The top 10% of products in each product category receive 5 stars, the next 22.5% receive 4 stars, the next 35% receive 3 stars, the next 22.5% receive 2 stars, and the bottom 10% receive 1 star. The Overall Morningstar Rating for a managed product is

derived from a weighted average of the performance figures associated with its three-, five-, and 10-year (if applicable) Morningstar Rating metrics. The weights are: 100% three-year rating for 36-59 months of total returns, 60% five-year rating/ 40% three-year rating for 60-119 months of total returns, and 50% 10-year rating/30% five-year rating/20% three-year rating for 120 or more months of total returns. While the 10-year overall star rating formula seems to give the most weight to the 10-year period, the most recent three-year period actually has the greatest impact because it is included in all three rating periods.

### Morningstar Rating Breakdown

The Morningstar rating breakdown section sums the percentage of assets in a Parent Company's funds (share classes) that receive, 5-, 4-, 3-, 2-, 1-star, or Not Rated Morningstar Ratings.

### Morningstar Rating for Stocks

The Morningstar Rating for Stocks is a forward-looking, analyst-driven measure of a stock's current price relative to the analyst's estimate of what the shares are worth. Stock star ratings indicate whether a stock, in the equity analyst's educated opinion, is cheap, expensive, or fairly priced. To rate a stock, an analyst estimates what he thinks it is worth (its "fair value"), using a detailed, long-term cash flow forecast for the company. A stock's star rating depends on whether its current market price is above or below the fair value estimate. Those stocks trading at large discounts to their fair values receive the highest ratings (4 or 5 stars). Stocks trading at large premiums to their fair values receive lower ratings (1 or 2 stars). A 3-star rating means the current stock price is fairly close to the analyst's fair value estimate.

### Morningstar Return

The Morningstar Return rates a managed investment's performance relative to other managed products in its Morningstar Category. It is an assessment of a product's excess return over a risk-free rate (the return of the 90-day Treasury Bill) in comparison with the products in its Morningstar category. In each Morningstar category, the top 10% of products earn a High Morningstar Return (High), the next 22.5% Above Average (+Avg), the middle 35% Average (Avg), the next 22.5% Below Average (-Ave), and the bottom 10% Low (Low). Morningstar Return is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

### Morningstar Risk

Morningstar Risk evaluates a managed investment's downside volatility relative to that of other products in its Morningstar Category. It is an assessment of the variations in monthly returns, with an emphasis on downside variations, in comparison with the products in its Morningstar category. In each Morningstar category, the 10% of products with the lowest measured risk are described as Low Risk (Low), the next 22.5% Below

Average (-Avg), the middle 35% Average (Avg), the next 22.5% Above Average (+Avg), and the top 10% High (High). Morningstar Risk is measured for up to three time periods (three, five, and 10 years). These separate measures are then weighted and averaged to produce an overall measure for the product. Products with less than three years of performance history are not rated.

**Morningstar Style Trail**

The Morningstar Style Trail give you a historical view of the movement of a managed investment’s portfolio over time in terms of equity style based on historical periods. This helps to clearly define the management of a portfolio over time and determine the consistency of that management.






**Morningstar Sustainability Rating™**

The Morningstar Sustainability Rating™ is intended to measure how well the issuing companies of the securities within a managed investment’s portfolio holdings are managing their financially material environmental, social and governance, or ESG, risks relative to the managed investment’s Morningstar Global Category peers.

The Morningstar Sustainability Rating calculation is a five-step process. First, each managed investment with at least 67% of assets covered by a company-level ESG Risk Score from Sustainalytics receives a Morningstar Portfolio Sustainability Score. The Morningstar Portfolio Sustainability Score is an asset-weighted average of company-level ESG Risk Scores. The Portfolio Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk.

Second, the Historical Sustainability Score is an exponential weighted moving average of the Portfolio Sustainability Scores over the past 12 months. The process rescales the current Portfolio Sustainability Score to reflect the consistency of the scores. The Historical Sustainability Score ranges between 0 to 100, with a higher score indicating that a managed investment has, on average, more of its assets invested in companies with high ESG Risk, on a consistent historical basis.

Third, the Sustainability Rating is then assigned to all scored managed investments within Morningstar Global Categories in which at least thirty (30) managed investments receive a Historical Sustainability Score and is determined by each managed investment’s Morningstar Sustainability Rating Score rank within the following distribution:

	High	Highest 10%
	Above Average	Next 22.5%
	Average	Next 35%
	Below Average	Next 22.5%
	Low	Lowest 10%

Fourth, we apply a 1% rating buffer from the previous month to increase rating stability. This means a managed

investment must move 1% beyond the rating breakpoint to change ratings.

Fifth, we adjust downward positive Sustainability Ratings to managed investments with a with high ESG Risk scores. The logic is as follows:

- If Portfolio Sustainability score is above 40, then the managed investment receives a Low Sustainability Rating.
- If Portfolio Sustainability score is above 35 and preliminary rating is Average or better, then the managed investment is downgraded to Below Average.
- If Portfolio Sustainability score is above 30 and preliminary rating is Above Average, then the managed investment is downgraded to Average.
- If Portfolio Sustainability score is below 30, then no adjustment is made.

The Morningstar Sustainability Rating is depicted by globe icons where High equals 5 globes and Low equals 1 globe. Since a Sustainability Rating is assigned to all managed investments that meet the above criteria, the rating it is not limited to managed investments with explicit sustainable or responsible investment mandates.

Morningstar updates its Sustainability Ratings monthly. The Portfolio Sustainability Score is calculated when Morningstar receives a new portfolio. Then, the Historical Sustainability Score and the Sustainability Rating is calculated one month and six business days after the reported as-of date of the most recent portfolio. As part of the evaluation process, Morningstar uses Sustainalytics’ ESG scores from the same month as the portfolio as-of date.

Please go to <http://corporate1.morningstar.com/sustainableinvesting/> for more detailed information about the Morningstar Sustainability Rating methodology and calculation frequency.

**NAV**

A managed investment’s net asset value (NAV) represents its per-share price. NAV is calculated by dividing a managed investment’s total net assets by its number of shares outstanding.

**Percentile Rank in Category**

Percentile Rank is a standardized way of ranking items within a peer group, in this case, managed investments within the same Morningstar Category. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable for returns (high returns), while higher percentile ranks are generally more favorable for risk measures (low risk).

**Peer Group**

The Peer Group, or rating group, is a group of similar managed investments that are compared against each

other for the purpose of assigning Morningstar ratings. For managed investments, the rating group is the Morningstar Category.

**Percentile Rank in Global Category**

Percentile Rank is a standardized way of ranking items within a peer group. The observation with the largest numerical value is ranked zero the observation with the smallest numerical value is ranked 100. The remaining observations are placed equal distance from one another on the rating scale. Note that lower percentile ranks are generally more favorable.

**Performance Quartile**

Performance Quartile reflects a managed investment’s Morningstar Rank.

**Potential Capital Gains Exposure**

Potential Capital Gains Exposure is an estimate of the percent of a fund’s assets that represent gains. It measures how much the fund’s assets have appreciated, and it can be an indicator of possible future capital gains distributions. A positive potential capital gains exposure value means that the fund’s holdings have generally increased in value while a negative value means that the fund has reported losses on its book.

**Price/Book Ratio**

The Price/Book Ratio (or P/B Ratio) for a managed investment is the weighted average of the P/B Ratio of the stocks in its portfolio. Book value is the total assets of a company, less total liabilities. The P/B ratio of a company is calculated by dividing the market price of its outstanding stock by the company’s book value, and then adjusting for the number of shares outstanding. Stocks with negative book values are excluded from this calculation. It shows approximately how much an investor is paying for a company’s assets based on historical valuations.

**Price/Cash Flow Ratio**

The Price/Cash Flow Ratio (or P/C Ratio) for a managed investment is the weighted average of the P/C Ratio of the stocks in its portfolio. The P/C Ratio of a stock represents the amount an investor is willing to pay for a dollar generated from a company’s operations. It shows the ability of a company to generate cash and acts as a gauge of liquidity and solvency.

**Price/Earnings Ratio**

The Price/Earnings Ratio (or P/E Ratio) for a managed investment is the weighted average of the P/E Ratios of the stocks in its portfolio. The P/E Ratio of a stock is calculated by dividing the current price of the stock by its trailing 12 months’ earnings per share. It can act as a gauge of a managed investment’s investment strategy in the current market climate, and whether it has a value or growth orientation. Companies in those industries enjoying a surge of popularity tend to have high P/E Ratios, reflecting a growth orientation. More staid industries tend to have low P/E Ratios, reflecting a value orientation.

### Price/Sales Ratio

The Price/Sales Ratio (or P/S Ratio) for a managed investment is the weighted average of the price/sales ratios of the stocks in its portfolio. Price/sales represents the amount an investor is willing to pay for a dollar of revenue generated from a particular company's operations.

### Profitability

The profitability grade is based on return on shareholders' equity (ROE) using data from the past five years. Companies with less than four years of consecutive ROE figures, including the ROE figure for the latest fiscal year, are excluded from the calculations. For the remaining universe of stocks, the profitability grade is based on the following three components:

1. The historical growth rate of ROE
2. The average level of historical ROE
3. The level of ROE in the latest fiscal year

### R-Squared

R-squared is the percentage of a security or portfolio's return movements that are explained by movements in its benchmark index, showing the degree of correlation between the security or portfolio and the benchmark. This figure is helpful in assessing how likely it is that beta and alpha are statistically significant. A value of 1 indicates perfect correlation between the security or portfolio and its benchmark. The lower the R-squared value, the lower the correlation.

### Representative Cost

Representative cost incorporates re-occurring costs charged by a fund to facilitate comparison of funds that calculate fees in different ways. For most markets, the representative cost is calculated using the net expense ratio excluding transaction costs. In the U.S., the representative cost does not include acquired expenses from other funds it may invest in, one-off costs, costs charged by third parties such as financial professionals or platforms, or one-off costs charged on entry or exit.

### Risk vs Return Scatterplot

The risk vs return scatterplot graph plots the return and risk (measured by standard deviation) for a selection of securities and a benchmark index for the trailing period identified in the report.

The returns noted for a security reflect any sales charges that were applied in the illustration over the time period selected, but do not reflect impacts of taxation. If impacts of taxation were reflected, the returns would be lower than those indicated in the report.

The return plotted in the graph is mean geometric return. Standard deviation is a statistical measure of the volatility of the security's or portfolio's returns in relation to the mean return. The larger the standard deviation, the greater the volatility of return in relation to the mean return.

### ROIC

This figure is the percentage a company earns on its invested capital in a given year (Year 1, 2, etc.).

The calculation is net operating profit after tax divided by average invested capital. The resulting figure is then multiplied by 100. Invested capital equals the sum of total stockholders' equity, long-term debt and capital lease obligation, and short-term debt and capital lease obligation. ROIC shows how much profit a company generates on its capital base. The better the company, the more profit it generates as a percentage of its invested capital. The company's net income is found in the income statement. The components of the company's invested capital are found in the balance sheet.

### Sales Growth %

Sales Growth is the estimation of the growth of sales for a stock. This is calculated by averaging the sales-growth rate per share of the stock for up to the previous four years. A managed investment's sales growth % is calculated by taking a share weighted average of the collective sales for all stocks in its portfolio.

### Role in Portfolio

Role in portfolio assists with portfolio allocation, managed investments can be designated "core", "supporting", or "specialty". Core funds should typically be the bulk of an investor's portfolio, while supporting players contribute to a portfolio but are secondary to the core. Specialty offerings tend to be speculative and should typically only be a small portion of an investor's portfolio.

### Sector Weightings %

Super Sectors represent Morningstar's broadest classification of equity sectors by assigning the 11 equity sectors into three classifications. The Cyclical Super Sector includes industries significantly impacted by economic shifts, and the stocks included in these sectors generally have betas greater than 1. The Defensive Super Sector generally includes industries that are relatively immune to economic cycles, and the stocks in these industries generally have betas less than 1. The Sensitive Super Sector includes industries that ebb and flow with the overall economy, but not severely so. Stocks in the Sensitive Super Sector generally have betas that are close to 1.

Fixed-income Super Sectors represent Morningstar's broadest classification of fixed-income sectors. Securities held in domestic taxable-bond portfolios are mapped into one of 14 fixed-income sectors, which in turn, roll up to five super sectors. The Government Super Sector includes all conventional debt issued by governments, bonds issued by a Central Bank or Treasury, and bonds issued by local governments, cantons, regions, and provinces. The Municipal Super Sector includes taxable and tax-exempt debt obligations issued under the auspices of states, cities, counties, provinces, and other non-federal government entities. The Corporate Super Sector includes bank loans, convertible bonds, conventional debt securities issued by corporations, and preferred stock.

The Securitized Super Sector includes all types of mortgage-based securities, covered bonds, and asset-backed securities. The Cash & Equivalents Super Sector includes cash in the bank, certificates of deposit, currency, and money market holdings. Cash can also be any fixed-income securities that mature in certain short time frames, commercial paper, and repurchase agreements. The Derivatives Super Sector includes the common types of fixed-income derivative contracts: futures and forwards, options, and swaps. This sector may be displayed as "Other" in certain reports.

### Sharpe Ratio

Sharpe Ratio uses standard deviation and excess return (a measure of a security or portfolio's return in excess of the U.S. Treasury three-month Treasury Bill) to determine the reward per unit of risk.

### Standard Deviation

Standard deviation is a statistical measure of the volatility of the security or portfolio's returns. The larger the standard deviation, the greater the volatility of return.

### Standardized Returns

Standardized Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since-inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experience if the security was purchased at the beginning of the period and sold at the end, incurring transaction charges.

### Tax Cost Ratio

The Morningstar Tax Cost Ratio measures how much a managed investment's annualized return is reduced by the taxes investors pay on distributions. Mutual funds regularly distribute stock dividends, bond dividends and capital gains to their shareholders. Investors then must pay taxes on those distributions during the year they were received.

Like an expense ratio, the tax cost ratio is a measure of how one factor can negatively impact performance. Also like an expense ratio, it is usually concentrated in the range of 0-5%. 0% indicates that the managed investment had no taxable distributions and 5% indicates that the managed investment was less tax efficient.

### Tenure Return %

Tenure Return % is the annualized return of a managed investment since the manager started running the strategy. This is useful to compare with the Index Return %, which measures the relevant index's annualized return in the same time period.

### Total Firm Assets and Fund Flows

Morningstar estimates fund-level flow data and aggregates it at the firm level. The Flows graph shows quarterly net flows and the firm's asset growth rate. This information illustrates the movement of money into and

out of the firm's funds over time, which can be particularly illustrative in times of market volatility.

### Trailing Returns

Trailing Return applies the methodology described in the Standardized Returns page of this report. Standardized Return is calculated through the most recent calendar-quarter end for one-year, five-year, 10-year, and/or since inception periods, and it demonstrates the impact of sales charges (if applicable) and ongoing fund expenses. Standardized Return reflects the return an investor may have experienced if the managed investment was purchased at the beginning of the period and sold at the end, incurring transaction charges.

Load-Adjusted Monthly Return is calculated applying the same methodology as Standardized Return, except that it represents return through month-end. As with Standardized Return, it reflects the impact of sales charges and ongoing fund expenses, but not taxation. If adjusted for the effects of taxation, the performance quoted would be significantly different.

Trailing Return +/- indicates how a managed investment has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

### Total Return

Total Return, or "Non Load-Adjusted Return", reflects performance without adjusting for sales charges (if applicable) or the effects of taxation, but it is adjusted to reflect all actual ongoing security expenses and assumes reinvestment of dividends and capital gains. It is the return an investor would have experienced if the managed investment was held throughout the period. If adjusted for sales charges and the effects of taxation, the performance quoted would be significantly reduced.

Total Return +/- indicates how a managed investment has performed relative to its peers (as measure by its Standard Index and/or Morningstar Category Index) over the time periods shown.

### Turnover Ratio %

Turnover Ratio measures the trading activity in a managed investment's portfolio by taking the lesser of purchases or sales (excluding all securities with maturities of less than one year) and dividing by average monthly net assets. In practical terms, the resulting percentage loosely represents the percentage of the managed investment's underlying holdings that have changed over the past year. The inverse of a managed investment's turnover ratio is the average holding period for a security in that managed investment.

### Upside Capture Ratio %

Upside Capture Ratio measures a managed investment's performance in up markets relative to the market (benchmark) itself. It is calculated by taking the managed investment's upside capture return and dividing it by the benchmark's upside capture return.

### World Regions %

The world regions is a display of the portfolio's assets invested in the regions shown on the report.

## Investment Risks

### International/Emerging Market Equities

Investing in international securities involves special additional risks. These risks include, but are not limited to, currency risk, political risk, and risk associated with varying accounting standards. Investing in emerging markets may accentuate these risks.

### Sector Strategies

Portfolios that invest exclusively in one sector or industry involve additional risks. The lack of industry diversification subjects the investor to increased industry-specific risks.

### Non-Diversified Strategies

Portfolios that invest a significant percentage of assets in a single issuer involve additional risks, including share price fluctuations, because of the increased concentration of investments.

### Small Cap Equities

Portfolios that invest in stocks of small companies involve additional risks. Smaller companies typically have a higher risk of failure and are not as well established as larger blue-chip companies. Historically, smaller-company stocks have experienced a greater degree of market volatility than the overall market average.

### Mid Cap Equities

Portfolios that invest in companies with market capitalization below \$10 billion involve additional risks. The securities of these companies may be more volatile and less liquid than the securities of larger companies.

### High-Yield Bonds

Portfolios that invest in lower-rated debt securities (commonly referred to as junk bonds) involve additional risks because of the lower credit quality of the securities in the portfolio. The investor should be aware of the possible higher level of volatility, and increased risk of default.

### Tax-Free Municipal Bonds

The investor should note that the income from tax-free municipal bond funds may be subject to state and local taxation and the Alternative Minimum Tax.

### Bonds

Bonds are subject to interest rate risk. As the prevailing level of bond interest rates rise, the value of bonds already held in a portfolio declines. Portfolios that hold bonds are subject to declines and increases in value due to general changes in interest rates.

### HOLDERS

The investor should note that these are narrow industry-focused products that, if the industry is hit by hard times, will lack diversification and possible loss of investment

would be likely. These securities can trade at a discount to market price, ownership is of a fractional share interest, the underlying investments may not be representative of the particular industry, the HOLDR might be delisted from the AMEX if the number of underlying companies drops below nine, and the investor may experience trading halts.

### Hedge Funds

The investor should note that hedge fund investing involves specialized risks that are dependent upon the type of strategies undertaken by the manager. This can include distressed or event-driven strategies, long/short strategies, using arbitrage (exploiting price inefficiencies), international investing, and use of leverage, options and/or derivatives. Although the goal of hedge fund managers may be to reduce volatility and produce positive absolute return under a variety of market conditions, hedge funds may involve a high degree of risk and are suitable only for investors of substantial financial means who could bear the entire loss of their investment.

### Bank Loan/Senior Debt

Bank loans and senior loans are impacted by the risks associated with fixed income in general, including interest rate risk and default risk. They are often non-investment grade; therefore, the risk of default is high. These securities are also relatively illiquid. Managed products that invest in bank loans/senior debt are often highly leveraged, producing a high risk of return volatility.

### Exchange Traded Notes (ETNs)

ETNs are unsecured debt obligations. Any repayment of notes is subject to the issuer's ability to repay its obligations. ETNs do not typically pay interest.

### Leveraged ETFs

Leveraged investments are designed to meet multiples of the return performance of the index they track and seek to meet their managed investment objectives on a daily basis (or other time period stated within the prospectus objective). The leverage/gearing ratio is the amount of excess return that a leveraged investment is designed to achieve in comparison to its index performance (i.e. 200%, 300%, -200%, or -300% or 2X, 3X, -2X, -3X). Compounding has the ability to affect the performance of the managed investment to be either greater or less than the index performance multiplied by the multiple stated within the managed investments objective over a stated time period.

### Short Positions

When a short position moves in an unfavorable way, the losses are theoretically unlimited. The broker may demand more collateral and a manager might have to close out a short position at an inopportune time to limit further losses.

### Long-Short

Due to the strategies used by long-short managed investments, which may include but are not limited to leverage, short selling, short-term trading, and investing

in derivatives, these managed investments may have greater risk, volatility, and expenses than those focusing on traditional investment strategies.

#### Liquidity Risk

Closed-end fund, ETF, and HOLDR trading may be halted due to market conditions, impacting an investor's ability to sell a fund.

#### Market Price Risk

The market price of ETFs, HOLDRs, and closed-end funds traded on the secondary market is subject to the forces of supply and demand and thus independent of the NAV. This can result in the market price trading at a premium or discount to the NAV, which will affect an investor's value.

#### Market Risk

The market prices of ETFs and HOLDRs can fluctuate as a result of several factors, such as security-specific factors or general investor sentiment. Therefore, investors should be aware of the prospect of market fluctuations and the impact it may have on the market price.

#### Target-Date Funds

Target-date funds typically invest in other mutual funds and are designed for investors who are planning to retire during the target date year. The fund's target date is the approximate date when investors expect to begin withdrawing their money. A target-date fund's investment objective/strategy typically becomes more conservative over time, primarily by reducing its allocation to equity mutual funds and increasing its allocations in fixed-income mutual funds. An investor's principal value in a target-date fund is not guaranteed at any time, including at the fund's target date.

#### High double- and triple-digit returns

High double- and triple-digit returns were the result of extremely favorable market conditions, which may not continue to be the case. High returns for short time periods must not be a major factor when making investment decisions.

## Benchmark Disclosure

#### Barclays US Agg Bond TR USD

This index is composed of the BarCap Government/Credit Index, the Mortgage- Backed Securities Index, and the Asset-Backed Securities Index. The returns we publish for the index are total returns, which include the daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core US Aggregate Bond.

#### MSCI EAFE NR USD

This Europe, Australasia, and Far East index is a market-capitalization-weighted index of 21 non-U.S., industrialized country indexes.

This disclosure applies to all MSCI indices: Certain

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#### Russell 1000 TR USD

Consists of the 1000 largest companies within the Russell 3000 index, which represents approximately 98% of the investable US equity market. Also known as the Market-Oriented Index, because it represents the group of stocks from which most active money managers choose. The constituents displayed for this index are from the following proxy: iShares Russell 1000.

#### S&P500 TR USD

A market capitalization-weighted index composed of the 500 most widely held stocks whose assets and/or revenues are based in the US; it's often used as a proxy for the stock market. TR (Total Return) indexes include daily reinvestment of dividends. The constituents displayed for this index are from the following proxy: iShares Core S&P 500.

#### USTREAS T-Bill Auction Ave 3 Mon

Three-month T-bills are government-backed, short-term investments considered to be risk-free and as good as cash because the maturity is only three months. Morningstar collects yields on the T-bill on a weekly basis from the Wall Street Journal.

#### Bloomberg Indexes

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