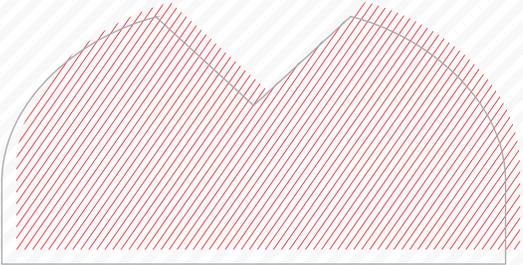
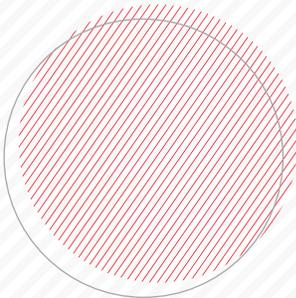
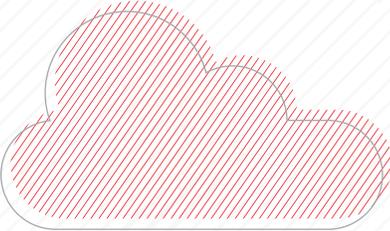


# Peer Analytics: Conducting Advanced Investment Analysis and Comparisons

Morningstar Direct Cloud Editions



**MORNINGSTAR** Direct



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# Peer Analytics: Conducting Advanced Investment Analysis and Comparisons

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This document provides a series of exercises to help familiarize you with the Peer Analytics capabilities in the Grid View component of the Morningstar Direct<sup>SM</sup> Cloud editions. The Peer Analytics tools allow you to conduct advanced investment analysis and comparison.

## Overview

 Note: In the desktop version of Morningstar Direct, these capabilities were found in the Performance Reporting module.

Note the following steps for leveraging the Peer Analytics tools:

1. Select investments to analyze (via a list or screen).
2. Choose the data columns to appear in the Grid View component.
3. Use the Peer Analytics tools to do the following:
  - ▶ group investments together (for example, by Morningstar Category)
  - ▶ display group-specific benchmarks, dynamic rank values, and summary statistics
  - ▶ apply conditional formatting to numeric data columns, and
  - ▶ create a scorecard to evaluate the data points you have displayed.

Once the presentation of the Grid View component meets your satisfaction, you can save the workbook and create a grid batch report to automatically generate the report as a Microsoft<sup>®</sup> Excel<sup>®</sup> file, saving you the trouble in the future of having to open the workbook and export it yourself.

The following scenarios are covered in this guide:

- ▶ [Using Dynamic Ranking \(page 6\)](#)
- ▶ [Assessing the Performance of Small Cap Value Funds \(page 17\)](#)
- ▶ [Identifying Top Actively Managed Funds \(page 28\)](#)
- ▶ [Creating a Custom Scorecard \(page 44\)](#)
- ▶ [Setting Up a Grid Batch Report \(page 57\)](#)

Before using the Peer Analytics capabilities in a Grid View component, note the following important points:

- ▶ The list or screen you are viewing must have no more than 2,000 items, as this is the limit when using the Peer Analytics capabilities.
- ▶ The Peer Analytics panel is available on the Grid View component in any worksheet, but the component must be expanded in order for the Show Peer Analytics button to be seen.

**What do I need to know before using the Peer Analytics tools?**

## Using Dynamic Ranking

In this section, you will use dynamic ranking for selected data points to rank funds against their peer group by doing the following:

1. Screen for emerging markets funds
2. Select columns to display
3. Rank selected columns within their peer group, and
4. Apply conditional formatting to the dynamically ranked values.

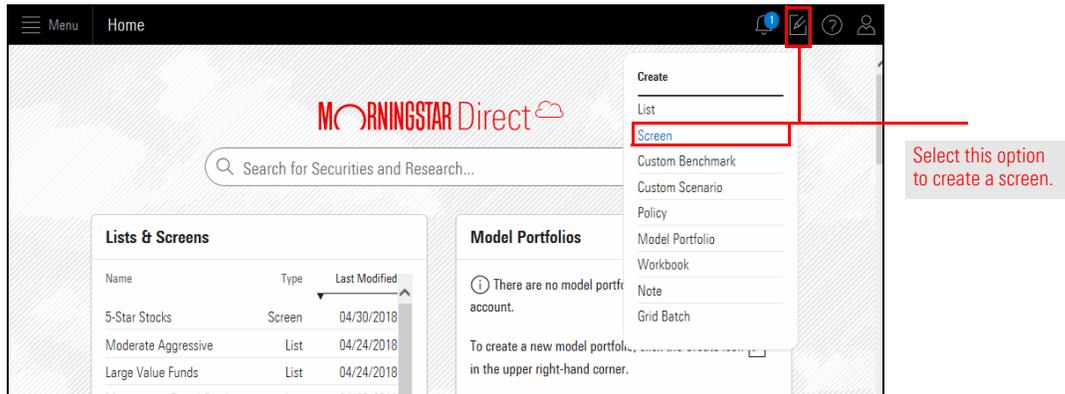
In this exercise, you will screen for exchange-traded and open-end funds in the Diversified Emerging Markets Morningstar Category.

Do the following:

1. On the header, click **Create > Screen**. The Screener window opens.

### Overview

### Exercise 1: Screen for funds in emerging markets



2. Create a **screen** to include the following criteria:

Field	Value
Universe	<ul style="list-style-type: none"> <li>▶ Exchange-Traded Fund</li> <li>▶ Open End Fund</li> </ul>
Domicile	United States
Morningstar Category	Diversified Emerging Markets
Oldest Share Class	Yes
Prospectus Net Expense Ratio	<=1
Inception Date	Before the first day of the current month from five years ago. (For example, 10/01/2013)

The screenshot shows the 'Create your Universe' interface with the following settings:

- Investment Type:** Exchange-Traded Fund, Open-End Fund
- Domicile:** United States
- Morningstar Category:** Diversified Emerging Mkts
- Oldest Share Class:** Value: Yes
- Prospectus Net Expense Ratio:** Less than or Equal to, Value: 1
- Inception Date:** Before

Buttons for 'Cancel' and 'Done' are visible at the top right. A 'Logic Mode' toggle is also present.

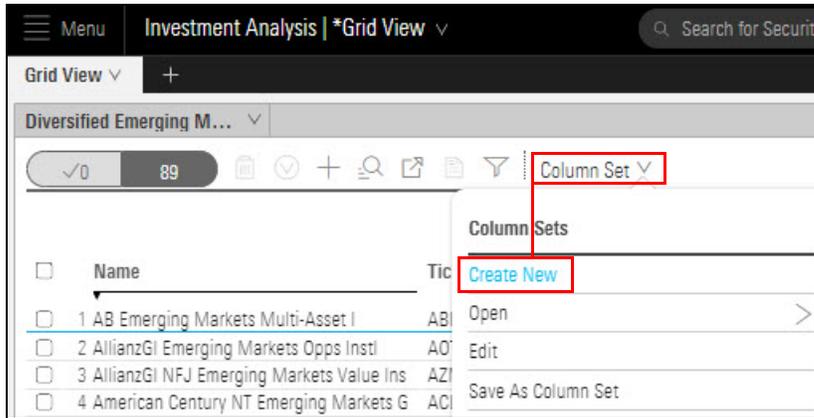
The final screen should look like this.

3. Click **Done**.
4. **Save** the screen as **Diversified Emerging Markets**.

To properly rank the funds, you need to ensure the appropriate data columns are displayed. You could open an existing column set, but in this exercise you will create a new column set to simplify the data display. Do the following:

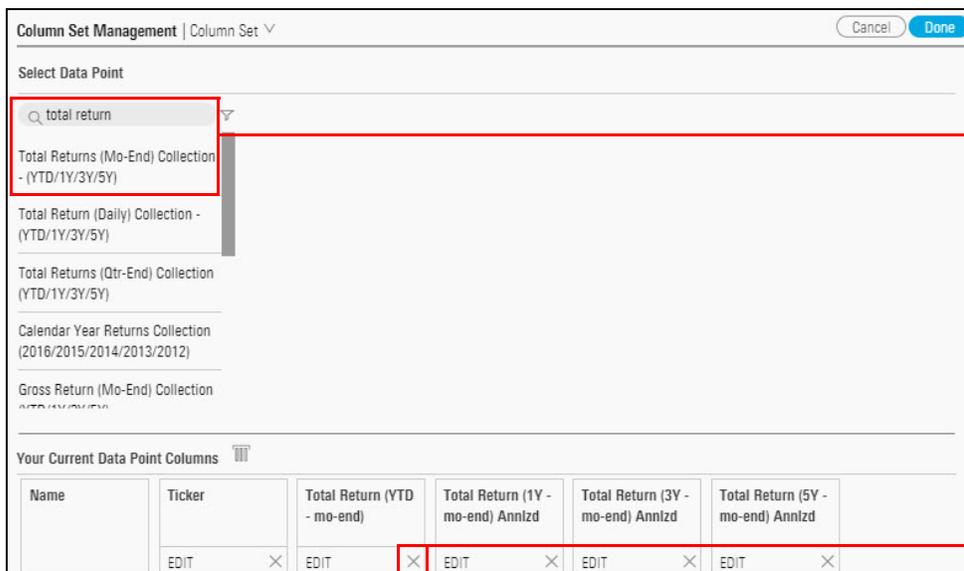
**Exercise 2: Select data columns to display**

1. From the **Column Set** menu, select **Create New**. The Column Set Management window opens.



Note the highlighted selections.

2. Search for and select **Ticker**.
3. Search for and select **Total Return (Mo-End) Collection - (YTD/1Y/3Y/5Y)**. Four data points are added to Your Current Data Point Columns.
4. Click the **X** to remove **Total Ret (YTD - mo-end)**.



Search for and select this option.

Click here to remove this item.

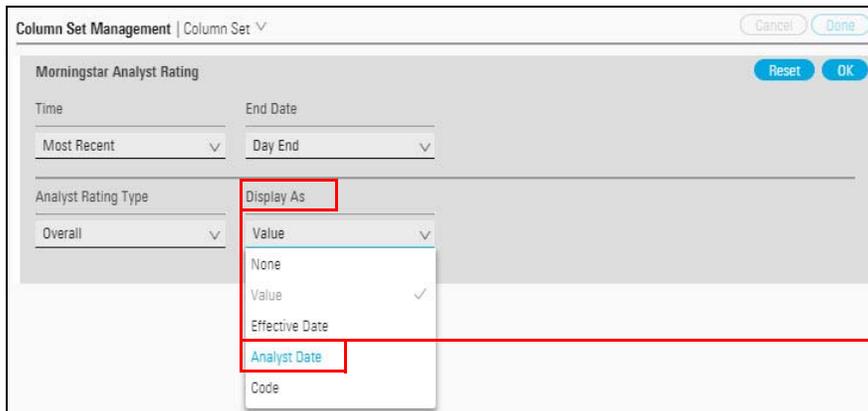
5. Search for and select **Morningstar Standard Rank Collection (YTD/1Y/3Y/5Y)**. Four data points are created.
6. Click the **X** to remove **Total Ret % Rank Cat YTD mo-end (mo-end)**.

The screenshot shows the 'Column Set Management' window. At the top, there are 'Cancel' and 'Done' buttons. Below is a search bar with 'Morningstar' entered. A dropdown menu is open, showing search results. The first result, 'Morningstar Star Ratings Collection (Overall/3Y/5Y/10Y)', is highlighted with a red box. A red line points from this box to a callout box on the right that says 'Search for and select this option.' Below the search results is a section titled 'Your Current Data Point Columns' containing a table of columns. The first column is 'Total Return (5Y - mo-end) Annlzd'. The second column is 'Total Ret % Rank Cat YTD mo-end (mo-)', and its 'EDIT' button is highlighted with a red box. A red line points from this box to a callout box on the right that says 'Click here to remove this item.'

7. Search for and select the following data points:
  - ▶ **Standard Deviation (Mo-End) Collection (1/3/5 Years)**
  - ▶ **Prospectus Net Expense Ratio**, and
  - ▶ **Morningstar Analyst Rating**.
8. To create a data point to display the Analyst Date, you will add a second instance of Morningstar Analyst Rating and modify its display setting. Do the following:
  - A. Search for and select **Morningstar Analyst Rating**. Now you have two Morningstar Analyst Rating data points.
  - B. In the second Morningstar Analyst Rating data point, click **Edit**. A window opens, where you can edit the data point's settings.

The screenshot shows the 'Column Set Management' window. At the top, there are 'Cancel' and 'Done' buttons. Below is a search bar with 'Morningstar Analys' entered. A dropdown menu is open, showing search results. The first result, 'Morningstar Analyst Rating', is visible. Below the search results is a section titled 'Your Current Data Point Columns' containing a table of columns. The columns are: 'Standard Deviation Total (1Y - qtr-end)', 'Standard Deviation Total (3Y - qtr-end)', 'Standard Deviation Total (5Y - qtr-end)', 'Prospectus Net Expense Ratio', 'Morningstar Analyst Rating (day-end)', and 'Morningstar Analyst Rating (day-end)'. The 'EDIT' button for the last column is highlighted with a red box. A red line points from this box to a callout box on the right that says 'Click here to change the data point's settings.'

C. From the **Display As** menu, select **Analyst Date**.

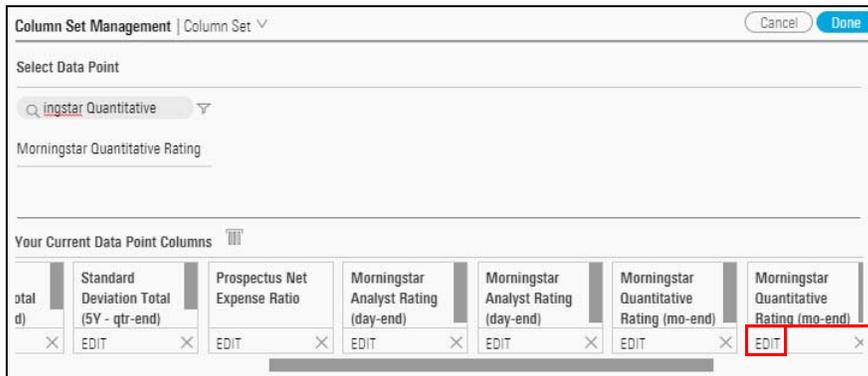


Note the highlighted selections.

D. Click **OK**.

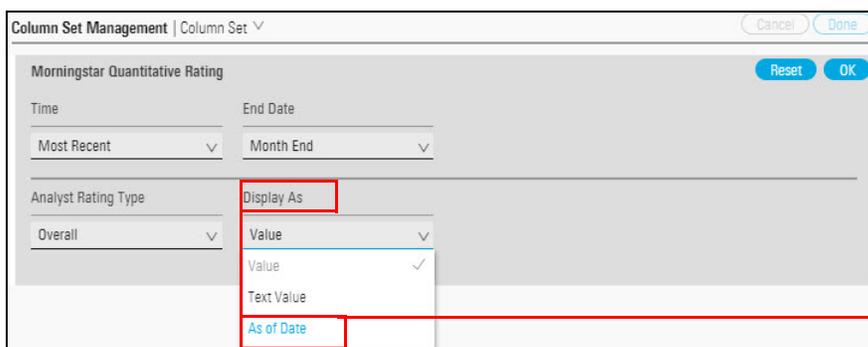
9. Search for and add two instances of the **Morningstar Quantitative Rating** data point.

A. In the second Morningstar Quantitative Rating data point, click **Edit**.



Click here to change this data point.

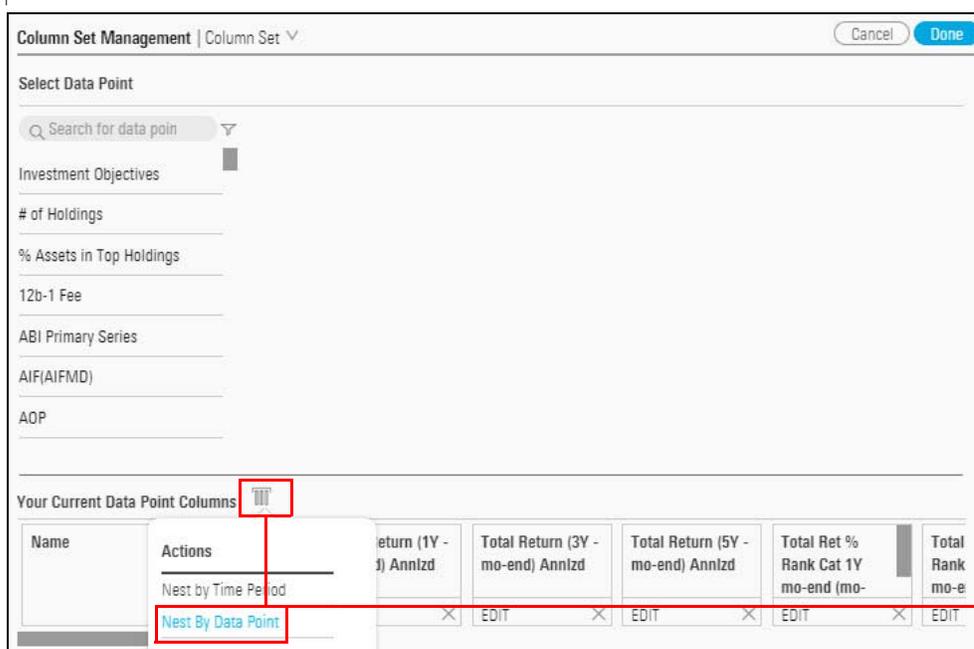
B. From the **Display As** menu, select **As of Date**.



Note the highlighted selections.

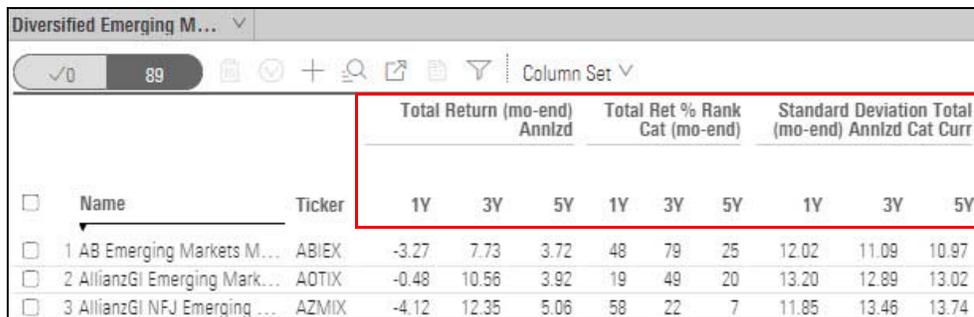
C. Click **OK**.

10. Search for and select **Manager Tenure**.
11. From the **Actions** menu, select **Nest by Data Point**.



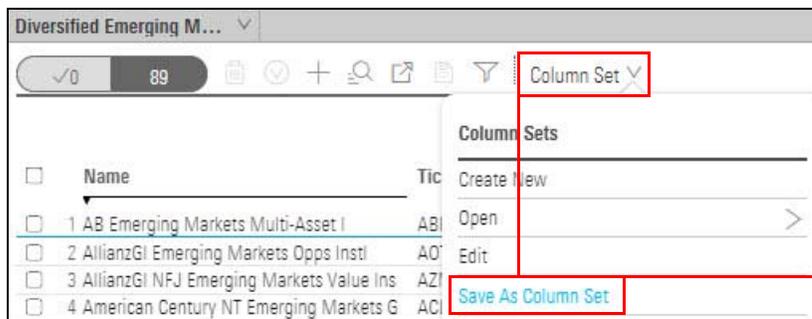
Select this option from the Nested icon.

12. Click **Done**.



Note the new column layout with nested headers.

13. From the **Column Set** menu, select **Save As Column Set**.



Select this option from the Column Set menu to save the changes.

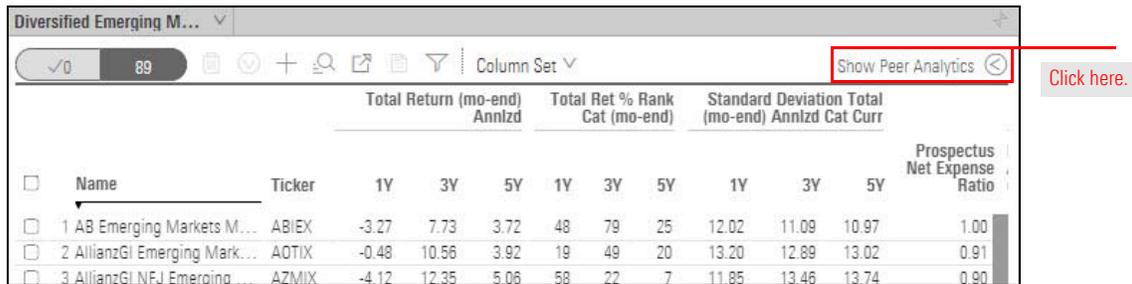
14. Name the column set **Volatility and Expense**.

Initially, dynamic ranking selects the first rankable data point in the column set. You can select more than one data point to rank on; however, not all data points are rankable, as you will see.

**Exercise 3: Rank the funds within their peer group**

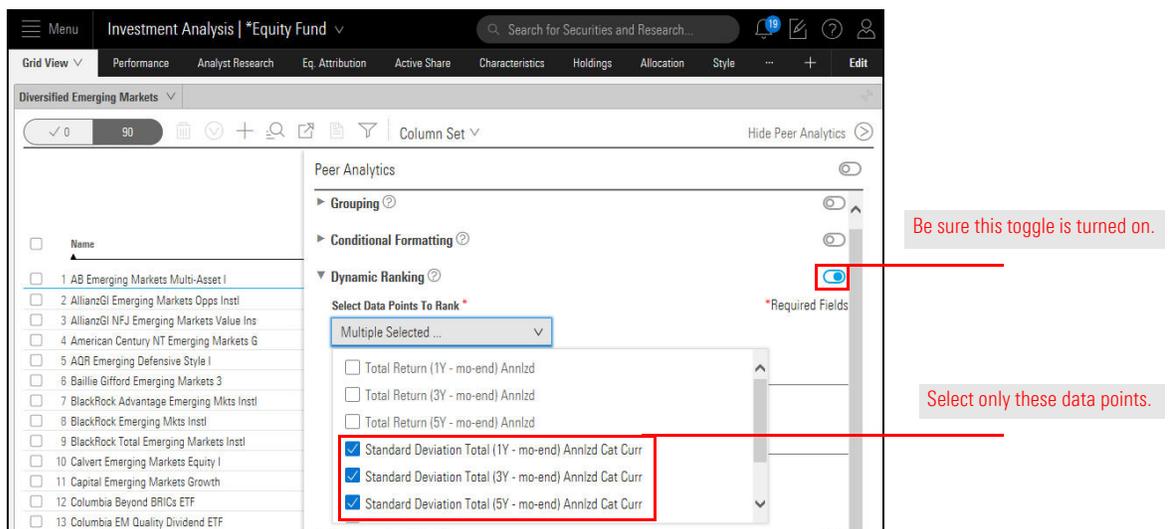
Do the following:

1. At the top-right corner of the Grid View component, click **Show Peer Analytics**. The Peer Analytics panel opens.



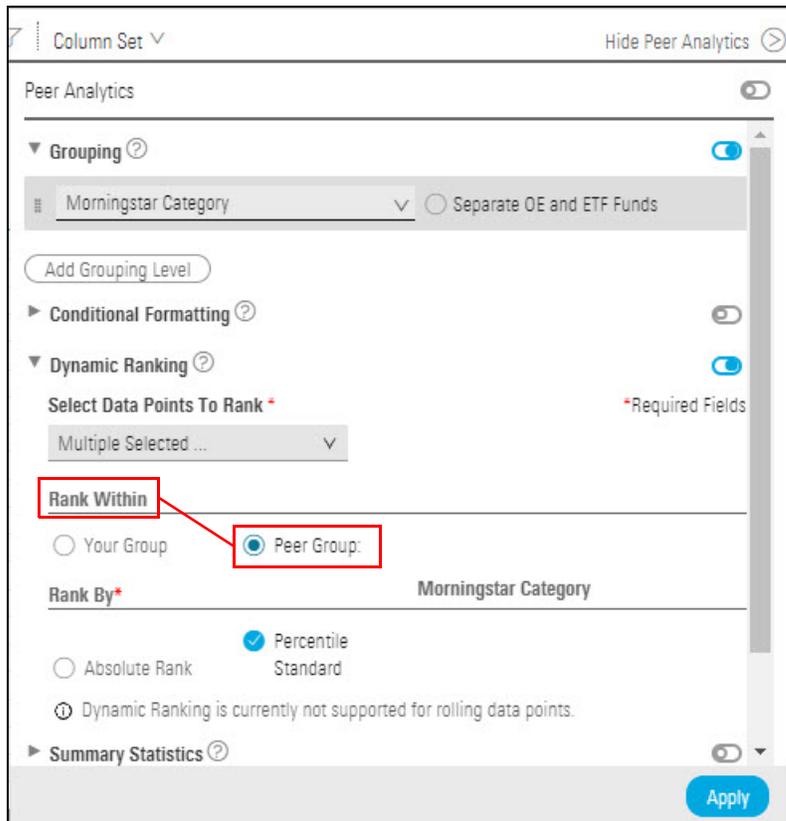
2. Click the **Dynamic Ranking** toggle to enable it.
3. Click the **Select Data Points to Rank** field. In the menu, the first rankable data point (1Y in Total Returns Mo-End) is selected. Note that only rankable data points from the column set are listed.
4. At the top of the menu, **uncheck** the box for **Total Return (1Y - mo-end) Annlzd**.
5. **Scroll down** and near the bottom of the menu, check the box for the following data points:

- ▶ **Standard Deviation Total (1Y - mo-end) Annlzd Cat Curr**
- ▶ **Standard Deviation Total (3Y - mo-end) Annlzd Cat Curr**
- ▶ **Standard Deviation Total (5Y - mo-end) Annlzd Cat Curr**, and
- ▶ **Prospectus Net Expense Ratio**.



6. **Click away** from the menu to close it.

- In the **Rank Within** area, select **Peer Group**.



- Click **Apply**.
- Click **Hide Peer Analytics**.

New columns for percentile data have been created under Standard Deviation Total (mo-end) Annlzd Cat Corr and to the right of Prospectus Net Expense Ratio.

Standard Deviation Total (mo-end) Annlzd Cat Curr									
<input type="checkbox"/>	Name	1Y	Percentile Standard	3Y	Percentile Standard	5Y	Percentile Standard	Prospectus Net Expense Ratio	Percentile Standard
<input type="checkbox"/>	14 Columbia Emerging Mark...	11.39	87	15.48	95	14.96	94	0.59	20
<input type="checkbox"/>	15 Consulting Group Emergi...	13.61	94	13.80	91	14.28	92	0.86	42
<input type="checkbox"/>	16 DFA Emerging Markets C...	13.07	93	14.09	92	14.22	92	0.53	16
<input type="checkbox"/>	17 DFA Emerging Markets I	13.12	93	14.00	92	14.30	92	0.48	14
<input type="checkbox"/>	18 DFA Emerging Markets II	13.16	93	14.00	92	14.29	92	0.34	7

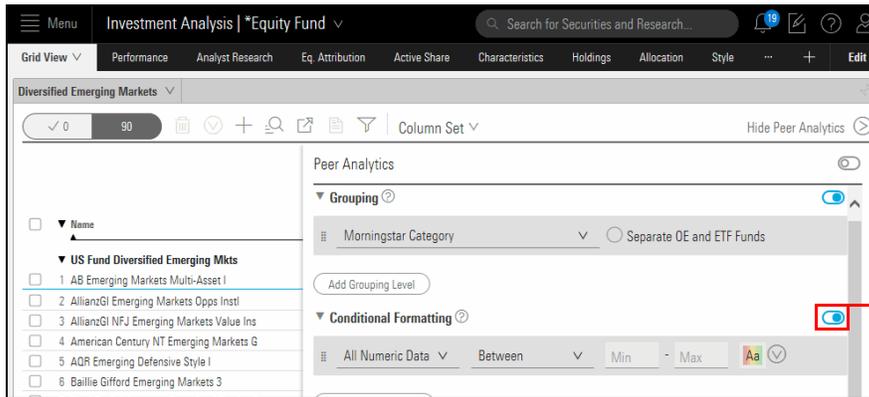
Note the highlighted selections.

In this exercise, you will apply conditional formatting to the dynamically ranked columns, so values less than or equal to 25 will have a green background, making them easier to focus on.

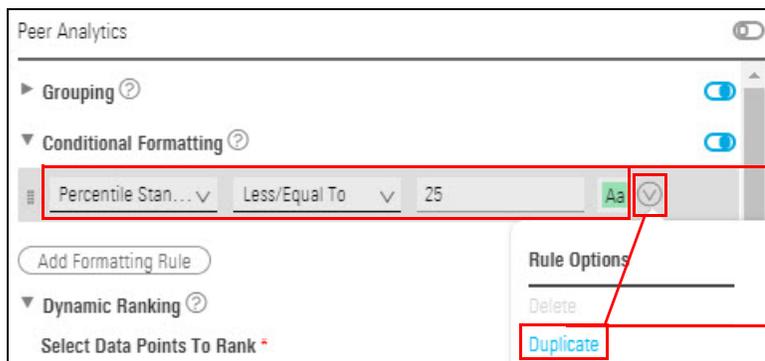
**Exercise 4: Apply conditional formatting**

Do the following:

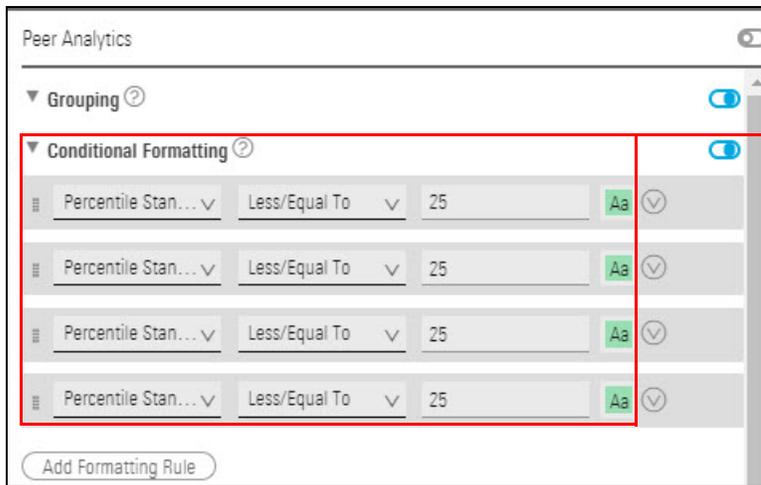
1. Click **Show Peer Analytics**.
2. Click the toggle to enable **Conditional Formatting**.



3. Do the following:
  - A. In the **All Numeric Data** drop-down field, **scroll down** and select the first **Percentile Standard**.
  - B. From the next drop-down field, select **Less/Equal To**.
  - C. In the text field, type **25**.
  - D. From the **Formatting Style** drop-down field, select **Green**.
4. To the right of Formatting Style, click the **Rule Options** icon, then select **Duplicate**. A duplicate of the first row is created.



- In the new row, from the **All Numeric Data** drop-down field, select the second **Percentile Standard**.
- From the **Rule Options** menu, select **Duplicate**. A third row is created.
- In the new row, from the **All Numeric Data** drop-down field, select the third **Percentile Standard**.
- From the **Rule Options** menu, select **Duplicate**. A fourth row is created.
- In the fourth row, from the **All Numeric Data** drop-down field, select the fourth **Percentile Standard**.



The Conditional Formatting area should look like this.

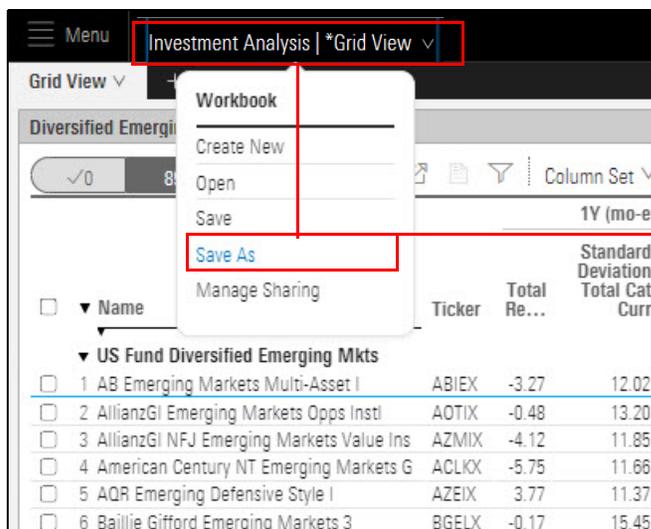
- Click **Apply**.
- Click **Hide Peer Analytics**.

12. **Scroll right** to see the columns with conditional formatting applied.

Now you can easily identify the funds with data in the 0–25 quartile.

Name	Ticker	Total Return (mo-end) Annlzd			Total Ret % Rank Cat (mo-end)			Standard Deviation Total (mo-end) Annlzd Cat Curr					Prospectus Net Expense Ratio	Percentile Standard	
		1Y	3Y	5Y	1Y	3Y	5Y	1Y	Percentile Standard	3Y	Percentile Standard	5Y			Percentile Standard
1 AB Emerging Markets...	ABIEX	-3.27	7.73	3.72	48	79	25	12.02	32	11.09	10	10.97	10	1.00	26
2 AllianzGI Emerging M...	AOTIX	-0.48	1...	3.92	19	49	20	13.20	61	12.89	34	13.02	29	0.91	20
3 AllianzGI NFJ Emergi...	AZMIX	-4.12	1...	5.06	58	22	7	11.85	28	13.46	47	13.74	47	0.90	19
4 American Century NT...	ACLKX	-5.75	1...	6.00	72	20	3	11.66	24	13.62	51	14.11	58	0.01	1
5 AQR Emerging Defen...	AZEIX	3.77	7.85	0.60	5	77	85	11.37	17	12.51	25	12.88	26	0.71	13
6 Baillie Gifford Emerg...	BGELX	-0.17	1...	7.40	17	5	1	15.45	95	16.26	96	15.74	91	0.78	15
7 BlackRock Advantage...	BLSIX	-0.68	1.35	-0...	21	98	94	13.86	76	9.10	2	7.66	1	0.94	21
8 BlackRock Emerging ...	MA...	-0.37	1...	3.75	19	12	25	14.06	83	14.36	72	14.69	81	0.99	25
9 BlackRock Total Emer...	BEEIX	-7.20	6.91	2.79	81	87	51	9.44	5	11.14	11	10.89	7	0.91	20
10 Calvert Emerging Mar...	CVMIX	-4.30	1...	5.68	59	11	4	12.49	39	12.58	27	13.22	33	0.92	21
11 Capital Emerging Mar...	EM...	-3.51	1...	2.09	51	37	67	13.59	71	14.59	82	14.59	74	0.89	19
12 Columbia Beyond BRI...	BBRC	2.21	7.34	0.17	8	83	89	13.72	73	12.80	32	12.75	24	0.60	10
13 Columbia EM Quality ...	HILO	0.38	1...	-0...	14	55	95	12.30	36	13.22	41	14.20	59	0.60	10
14 Columbia Emerging ...	ECON	-1...	1.73	-2...	100	98	99	11.39	18	15.48	91	14.96	85	0.59	9
15 Consulting Group Em...	TEMUX	-6.60	1...	2.88	77	34	49	13.61	72	13.80	54	14.28	61	0.86	17
16 DFA Emerging Marke...	DFCEX	-2.48	1...	3.57	41	36	31	13.07	53	14.09	63	14.22	59	0.53	8
17 DFA Emerging Markets I	DFEMX	-0.88	1...	3.59	23	25	28	13.12	56	14.00	60	14.30	61	0.48	7
18 DFA Emerging Marke...	DFETX	-0.76	1...	3.80	22	23	23	13.16	58	14.00	60	14.29	61	0.34	5
19 DFA Emerging Marke...	DE...	-5.08	1...	4.60	66	51	10	13.15	58	14.09	63	13.79	49	0.73	14
20 DFA Emerging Marke...	DFESX	-2.34	1...	3.69	39	23	26	12.88	47	14.11	64	14.29	61	0.55	9
21 DFA Emerging Marke...	DFEVX	2.37	1...	3.58	7	7	29	14.85	92	15.62	92	16.20	94	0.57	9
22 DWS Emerging Mark...	SEMGX	1.37	1...	4.42	9	24	12	13.80	74	14.20	66	14.60	75	1.00	26
23 Fidelity* Emerging M...	FEMKX	-2.28	1...	5.44	38	20	5	11.93	29	13.20	40	13.19	32	0.97	24
24 Fidelity* Emerging M...	FPADX	-1.04	1...	3.98	26	27	20	13.35	65	14.03	61	14.66	79	0.08	1

13. **Save** the workbook as **Emerging Markets Volatility and Expense**.



Use the workbook menu to select this option

## Assessing the Performance of Small Cap Value Funds

Your manager has asked you to evaluate the performance of funds in the Small Cap Value category over the past one-, three-, and five-year time periods, provided the funds are at least five years, and are still open to new investors. Your manager needs to see only certain share classes of these funds.

### Overview

You will create a screen to find these funds, then use the Scorecard capability to evaluate their performance. In addition to seeing the overall score for the funds, you will also display the absolute rank and the percentile rank for each fund.

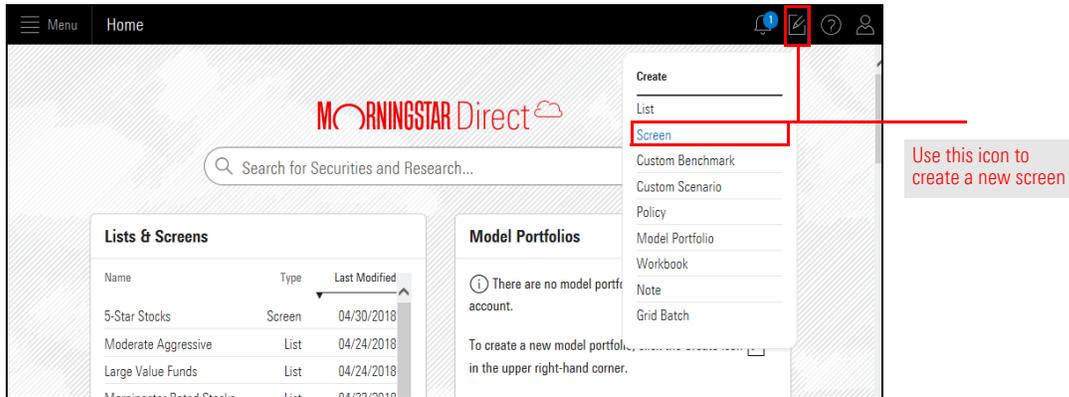
Name	Total Return (1Y - mo-end) Annlzd [20%]	Total Return (3Y - mo-end) Annlzd [30%]	Total Return (5Y - mo-end) Annlzd [50%]	Scorecard		
				Weighted Score	Weighted Score List Rank	Weighted Score List Quartile
1 Goldman Sachs Small Cp Val Insights Inv	20.66	12.60	12.30	6.20	1	1
2 JNL/PPM America Small Cap Value A	17.15	11.26	13.29	7.50	2	1
3 Goldman Sachs Small Cp Val Insights A	20.37	12.32	12.02	7.70	3	1
4 Columbia Small Cap Value I A	18.91	12.53	11.69	9.50	4	1
5 Royce Opportunity Invmt	20.81	12.16	11.33	10.70	5	1
6 VALIC Company I Small Cap Special Val	15.39	11.28	12.96	12.20	6	1
7 Wells Fargo Special Small Cap Value A	15.03	11.13	12.78	15.50	7	1
8 CornerCap Small-Cap Value Investor	14.82	11.04	13.08	16.10	8	1
9 Nuveen Small Cap Value A	12.65	11.18	12.50	20.20	9	1
10 MFS* New Discovery Value A	15.07	10.96	11.65	20.80	10	1
11 ProFunds Small Cap Value Inv	18.71	10.82	11.02	21.20	11	1
12 Wells Fargo Small Company Value A	19.48	10.31	10.94	22.30	12	1
13 Vanguard Small Cap Value Index Inv	14.71	9.54	11.92	25.10	13	1
14 AB Discovery Value A	16.33	9.35	11.11	25.90	14	1
15 Delaware Small Cap Value A	12.52	11.04	11.23	27.30	15	1
16 RBC Microcap Value A	16.21	8.87	11.28	27.70	16	1
17 Dunham Small Cap Value A	16.47	10.18	10.23	31.30	17	1
18 Bridgeway Small-Cap Value	22.42	10.36	9.43	31.60	18	2
19 Northern Small Cap Value	12.60	9.68	11.05	33.90	19	2
20 American Beacon Small Cp Val Inv	15.13	9.41	10.74	34.10	20	2
21 Janus Henderson Small Cap Value A	11.38	10.10	11.07	34.20	21	2
22 Sterling Capital Behav Sm Cp Val Eq A	15.60	9.46	10.33	34.40	22	2
23 Guggenheim Mid Cap Value A	15.76	11.13	9.39	36.00	23	2
24 Victory Integrity Small-Cap Value A	16.14	8.52	10.78	36.00	23	2
25 American Beacon Small Cp Val A	15.03	9.33	10.64	36.20	25	2
26 VALIC Company II Small Cap Value	15.44	9.42	10.27	36.20	25	2

Various options exist for reporting scores.

To find small-cap value funds still open to new investors (and that have been open for at least five years), do the following:

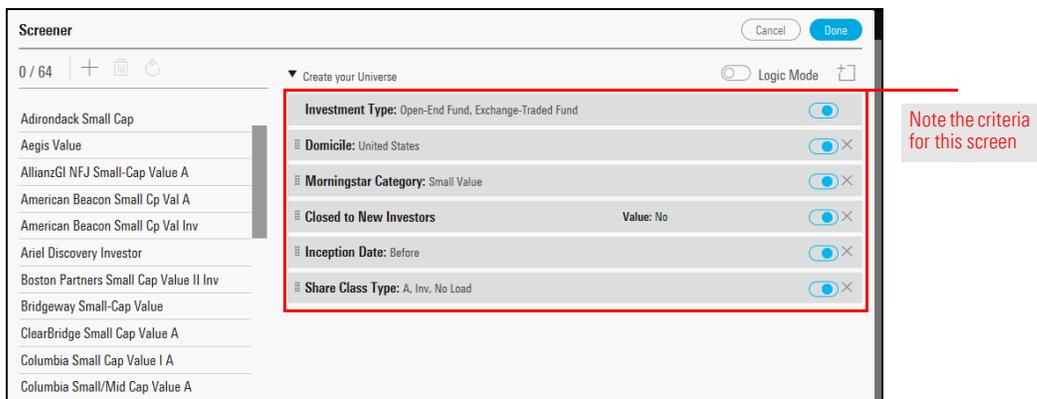
**Exercise 5: Screen for funds in the Small Cap Value Morningstar Category**

1. On the header, click **Create > Screen**. The Screener window opens.



2. Create a screen to include the following criteria:

Field	Value
Investment Type	<ul style="list-style-type: none"> <li>▶ Exchange-Traded Fund</li> <li>▶ Open-End Fund</li> </ul>
Domicile	United States
Morningstar Category	Small Value
Closed to New Investors	No
Inception Date	Before [Choose the first date of the current month from five years ago]
Share Class Type	<ul style="list-style-type: none"> <li>▶ A</li> <li>▶ Inv</li> <li>▶ No Load</li> </ul>

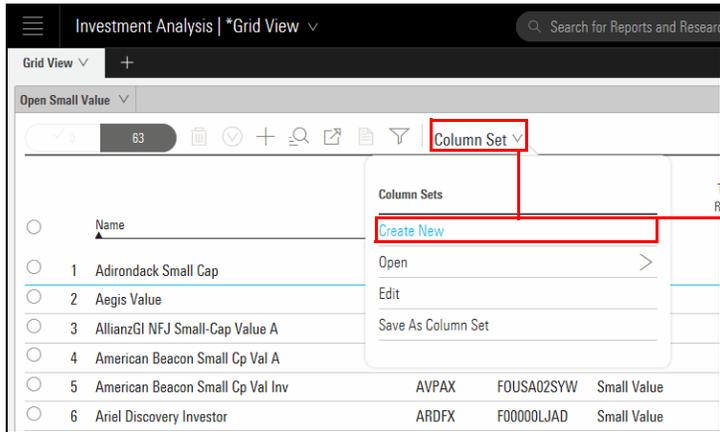


3. Click **Done**.
4. **Save** the search as **Open Small Value Funds**.

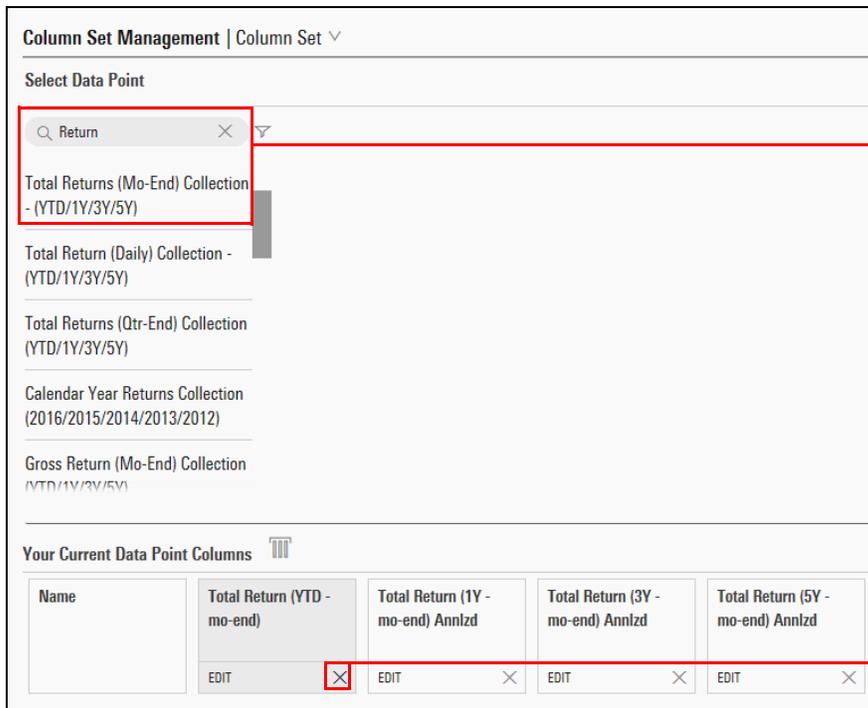
To properly calculate the scores for the funds' performance, you need to ensure the correct data columns are being shown. You could open an existing column set to do this, but in this exercise, you will create one from scratch to simplify the data being shown and see how it ties to the scorecard. Do the following:

**Exercise 6: Select data columns to display**

1. From the **Column Set** menu, select **Create New**. The Column Set Management window opens.



2. Search for **Return**, then select **Total Returns (Mo-End) Collection - (YTD/1Y/3Y/5Y)**.
3. **Remove** the **Total Return (YTD - mo-end)** data point.



4. To close the Column Set Management window, click **Done**.
5. From the **Column Set** menu, choose **Save As Column Set** and name it **Basic Returns**.

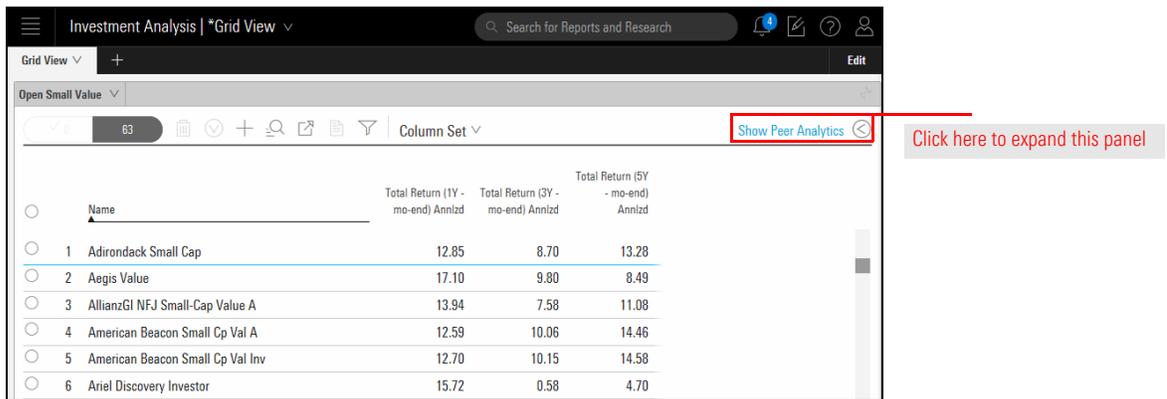
A scorecard allows you to evaluate the numeric values in the Grid View component, to determine which investments meet a rule or series of rules you define. Scorecards are of two varieties:

**Exercise 7: Score funds on their performance**

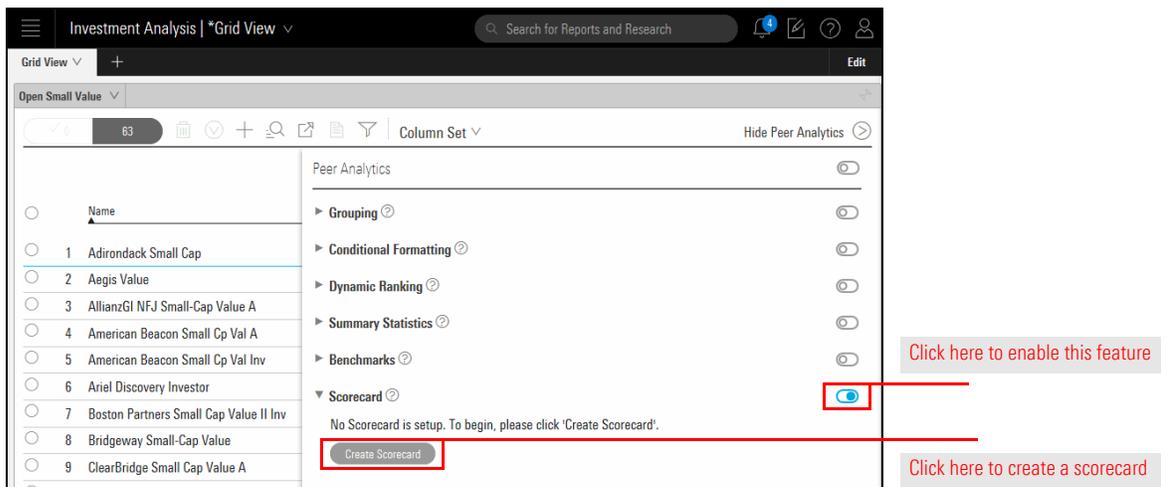
- ▶ The Standard Scoring method converts raw data points to percentile ranks, and applies user-selected weights to those percentile ranks. These weighted percentile ranks are then aggregated to create the score for an investment.
- ▶ The Custom Scoring method applies user-defined rules for data points and assigns numeric grades based on those rules.

In this example, a standard scorecard will be applied. Do the following:

1. Click **Show Peer Analytics**. The Peer Analytics panel opens.



2. Click the **Scorecard** toggle to turn it on, then click **Create Scorecard**. The Scorecard window opens.



- The option for Standard Scoring should be selected. Click the **select all** button next to Data Point, then click **Equal Weight**. The values in the % Weight column update.

**Scorecard** [Cancel] [Done]

**Scoring Type**      **Scoring Settings**

Standard Scoring       Custom Scoring

Handle Missing Values By: **Rewighting**      Standardize Based On: **Percentile rank (Peer group)**

**Performance Factors**

Equal Weight       Reset Weight      **Total Weight** 0%

	Scoring	% Weight
<input checked="" type="checkbox"/> Total Return (1Y - mo-end) Annlzd	Higher is Better	0%
<input checked="" type="checkbox"/> Total Return (3Y - mo-end) Annlzd	Higher is Better	0%
<input checked="" type="checkbox"/> Total Return (5Y - mo-end) Annlzd	Higher is Better	0%

This option should be selected

To select all, click here, then click the Equal Weight button just above it

- Click **Done**. The Scorecard window closes.
- Click **Hide Peer Analytics**. Note the two new scorecard columns added to the Grid View component.
- Click the **Weighted Score List Rank** column to sort by that value. The best-performing funds appear at the top.

Investment Analysis | \*Grid View

Grid View      63      Column Set      Show Peer Analytics

	Total Return (1Y - mo-end) Annlzd [33.34%]	Total Return (3Y - mo-end) Annlzd [33.33%]	Total Return (5Y - mo-end) Annlzd [33.33%]	Weighted Score	Weighted Score List Rank
○ 1 JNL/PPM America Small Cap Value A	21.21	13.94	17.48	1.67	1
○ 2 MFS® New Discovery Value A	17.84	12.64	15.62	6.33	2
○ 3 Columbia Small Cap Value Fund I A	19.63	13.33	15.17	7.33	3
○ 4 Royce Opportunity Invmt	23.80	11.83	15.24	9.00	4
○ 5 VALIC Company I Small Cap Special Val	14.52	12.28	16.28	14.67	5

Click this column header to sort by this data point

After seeing the results, you realize the return values should be weighted so that the longer time periods are weighted more heavily than the earlier ones. Do the following:

**Exercise 8: Adjust the weightings for the scorecard**

1. Click **Show Peer Analytics**. The Peer Analytics panel opens.

Name	Total Return (1Y - mo-end) Annlzd	Total Return (3Y - mo-end) Annlzd	Total Return (5Y - mo-end) Annlzd
1 Adirondack Small Cap	12.85	8.70	13.28
2 Aegis Value	17.10	9.80	8.49
3 AllianzGI NFJ Small-Cap Value A	13.94	7.58	11.08
4 American Beacon Small Cp Val A	12.59	10.06	14.46
5 American Beacon Small Cp Val Inv	12.70	10.15	14.58
6 Ariel Discovery Investor	15.72	0.58	4.70

Click here to open the panel

2. Click **Edit Scorecard**. The Scorecard window opens.

Name	Peer Analytics	Grouping	Conditional Formatting	Dynamic Ranking	Summary Statistics	Benchmarks	Scorecard
1 JNL/PPM America Small Cap Value A	<input type="checkbox"/>	<input checked="" type="checkbox"/>					
2 MFS® New Discovery Value A	<input type="checkbox"/>						
3 Columbia Small Cap Value Fund I A	<input type="checkbox"/>						
4 Royce Opportunity Invmt	<input type="checkbox"/>						
5 VALIC Company I Small Cap Special Val	<input type="checkbox"/>						
6 Delaware Small Cap Value A	<input type="checkbox"/>						
7 Janus Henderson Small Cap Value A	<input type="checkbox"/>						
8 Wells Fargo Special Small Cap Value A	<input type="checkbox"/>						

Use this button to change the Scorecard settings

3. Uncheck the **select all** button.
4. Under the % Weight column, enter the following values:
  - ▶ 1Y = **20**
  - ▶ 3Y = **30**
  - ▶ 5Y = **50**

**Scorecard** [Cancel] [Done]

**Scoring Type**  
 Standard Scoring  Custom Scoring

**Scoring Settings**  
 Handle Missing Values By: Reweighting  
 Standardize Based On: Percentile rank (Peer group)

**Performance Factors**  
 Data Point

Total Weight: 100%

Performance Factor	Scoring	% Weight
<input type="radio"/> Total Return (1Y - mo-end) Annlzd	Higher is Better	20%
<input type="radio"/> Total Return (3Y - mo-end) Annlzd	Higher is Better	30%
<input type="radio"/> Total Return (5Y - mo-end) Annlzd	Higher is Better	50 ×

Be sure to deselect this option

Be sure the values you input here always total to exactly 100

5. Click **Done**. The Scorecard window closes.
6. Click **Hide Peer Analytics**. Note the updated values in the two Scorecard columns.

Investment Analysis | \*Grid View

Open Small Value Funds

Name	Total Return (1Y - mo-end) Annlzd (20%)	Total Return (3Y - mo-end) Annlzd (30%)	Total Return (5Y - mo-end) Annlzd (50%)	Weighted Score	Weighted Score List Rank
1 Goldman Sachs Small Cp Val Insights Inv	2.33	11.26	8.62	2.50	1
2 Goldman Sachs Small Cp Val Insights A	2.08	10.99	8.35	6.10	2
3 MFS* New Discovery Value A	0.97	11.08	8.13	6.70	3
4 VALIC Company I Small Cap Special Val	-0.86	10.19	6.61	8.40	4
5 Vanguard Small Cap Value Index Inv	0.22	9.06	8.39	10.60	5
6 Wells Fargo Special Small Cap Value A	-0.98	9.94	8.37	11.40	6
7 ProFunds Small Cap Value Inv	0.77	10.18	6.81	15.30	7
8 Dunham Small Cap Value A	0.08	9.36	7.15	17.30	8

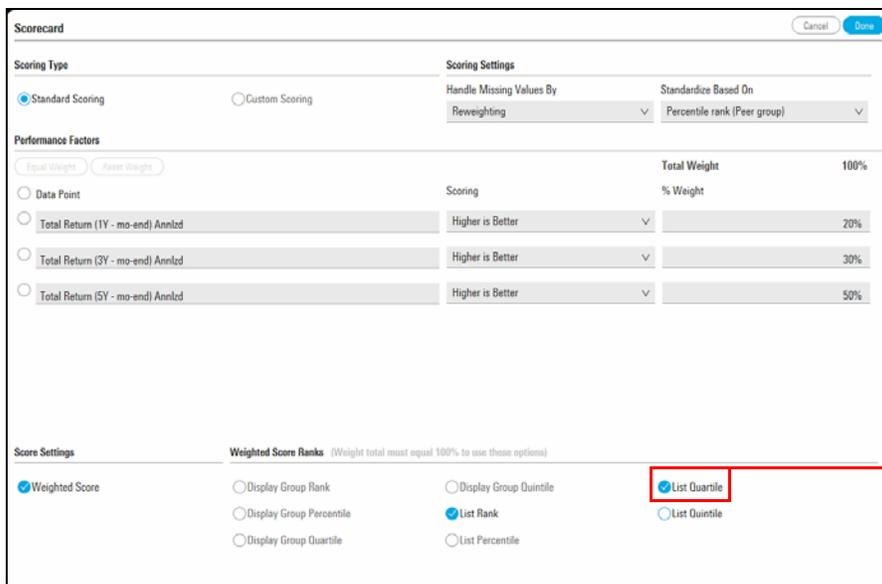
Note that with a standard score, the lower the score, the better the ranking.

Seeing both the weighted score and the weighted score list rank for the funds is useful, but remember that the set of funds you're seeing is based on a screen and the results of a screen are dynamic. Therefore, the number of items returned each time you open the screen could change, and this in turn would change the meaning of the score rank.

**Exercise 9: Show the percentile rank for the funds' scores**

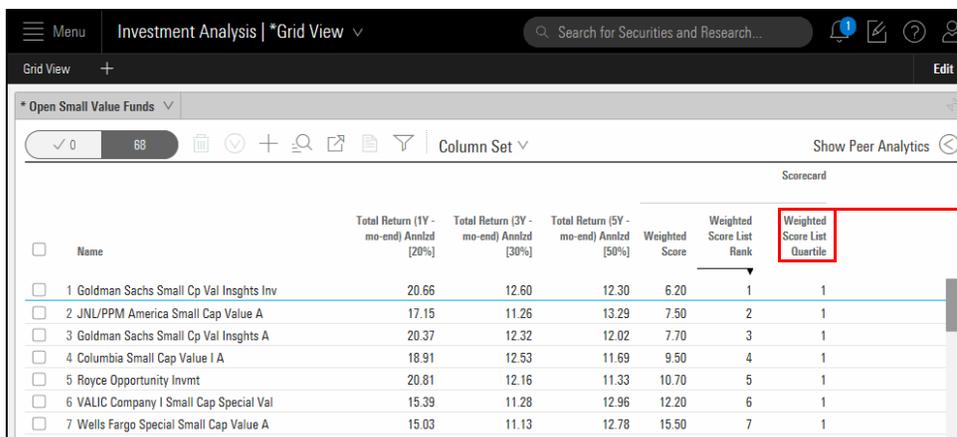
In addition to the score columns already showing, you can also choose to display the weighted score list quartile. Seeing the quartile ranking for a fund's score provides a relative value for its absolute rank value. For example, a fund whose rank is 10 out of 18 funds would be in just the third quartile, but a fund whose rank is 10 out of 48 funds would be in the top quartile. Do the following:

1. Click **Show Peer Analytics**. The Peer Analytics panel opens.
2. Click **Edit Scorecard**. The Scorecard window opens.
3. Under the Weighted Score Ranks area, select the option for **List Quartile**.



Click this button to see which quartile a fund appears in based on its score.

4. Click **Done**. The Scorecard window closes.
5. Click **Hide Peer Analytics**. Note the new Weighted Score List Quartile column.



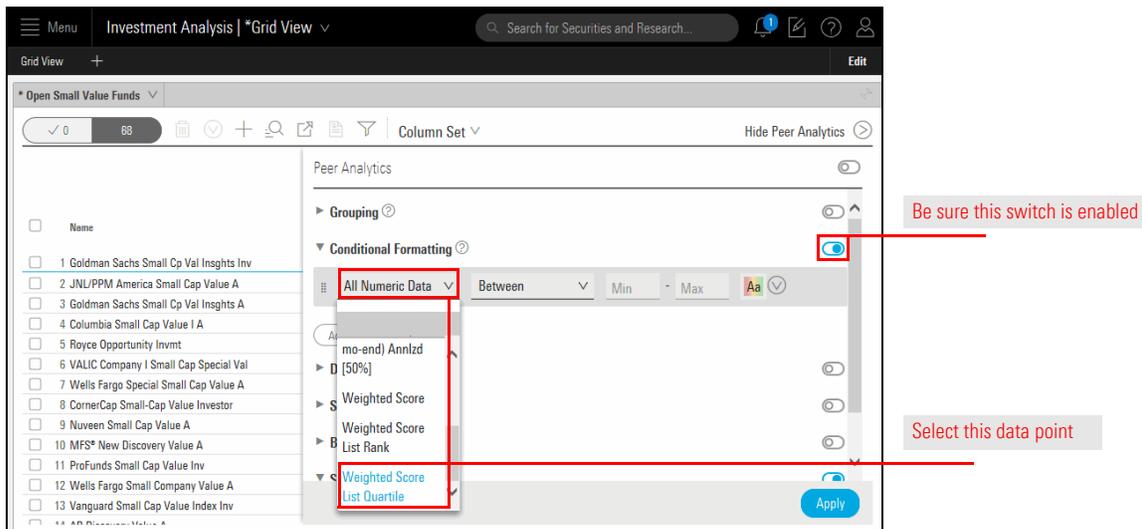
This column has been added to the component.

To illustrate where the list quartile breakpoints occur, you can use the Conditional Formatting tool to add color to the Weighted Score List Quartile column. Using the Conditional Formatting tool requires you to create a series of rules to define how to apply color to cells. Once you create the first rule, it's easy to duplicate it and change just a couple of values, rather than creating an entirely new rule from scratch.

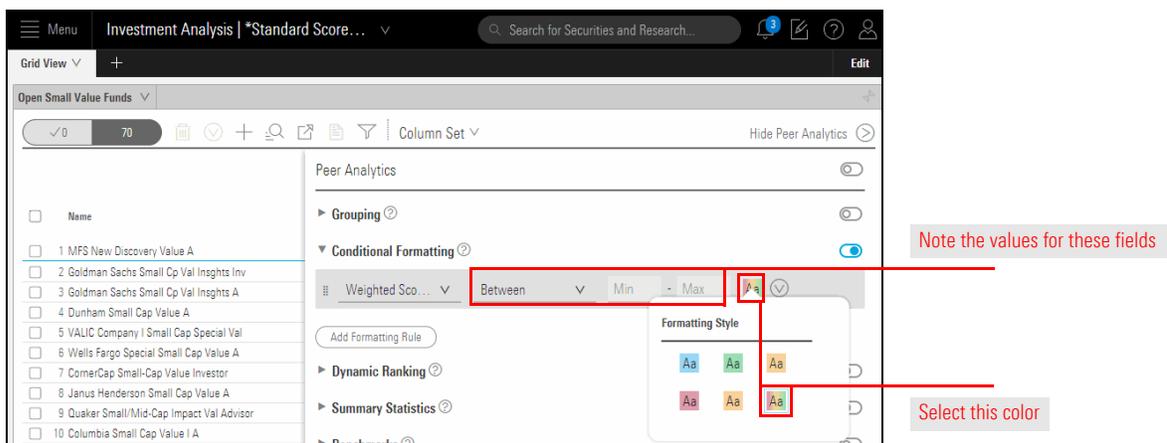
**Exercise 10: Use conditional formatting to highlight the results**

Do the following:

1. Click **Show Peer Analytics**. The Peer Analytics panel opens.
2. Click the **Conditional Formatting** switch to enable it.
3. Click the **first drop-down field**, then scroll down to select **Weighted Score List Quartile**.



4. From the next drop-down field, leave **Between** selected. The next two fields to the right should read Min and Max, respectively.
5. Click the **Color** icon, and be sure the **multi-color** option is selected.



6. Click **Apply**.

7. Click **Hide Peer Analytics**. Note the conditional formatting applied to the last column.

Name	Total Return (1Y - mo-end) Annlzd [20%]	Total Return (3Y - mo-end) Annlzd [30%]	Total Return (5Y - mo-end) Annlzd [50%]	Weighted Score	Weighted Score List Rank	Weighted Score List Quartile
1 Goldman Sachs Small Cp Val Insights Inv	20.66	12.60	12.30	6.20	1	1
2 JNL/PPM America Small Cap Value A	17.15	11.26	13.29	7.50	2	1
3 Goldman Sachs Small Cp Val Insights A	20.37	12.32	12.02	7.70	3	1
4 Columbia Small Cap Value I A	18.91	12.53	11.69	9.50	4	1
5 Royce Opportunity Invmt	20.81	12.16	11.33	10.70	5	1
6 VALIC Company I Small Cap Special Val	15.39	11.28	12.96	12.20	6	1
7 Wells Fargo Special Small Cap Value A	15.03	11.13	12.78	15.50	7	1
8 CornerCap Small-Cap Value Investor	14.82	11.04	13.08	16.10	8	1
9 Nuveen Small Cap Value A	12.65	11.18	12.50	20.20	9	1
10 MFS* New Discovery Value A	15.07	10.96	11.65	20.80	10	1
11 ProFunds Small Cap Value Inv	18.71	10.82	11.02	21.20	11	1
12 Wells Fargo Small Company Value A	19.48	10.31	10.94	22.30	12	1
13 Vanguard Small Cap Value Index Inv	14.71	9.54	11.92	25.10	13	1
14 AB Discovery Value A	16.33	9.35	11.11	25.90	14	1
15 Delaware Small Cap Value A	12.52	11.04	11.23	27.30	15	1
16 RBC Microcap Value A	16.21	8.87	11.28	27.70	16	1
17 Dunham Small Cap Value A	16.47	10.18	10.23	31.30	17	1
18 Bridgeway Small-Cap Value	22.42	10.36	9.43	31.60	18	2
19 Northern Small Cap Value	12.60	9.68	11.05	33.90	19	2
20 American Beacon Small Cp Val Inv	15.13	9.41	10.74	34.10	20	2
21 Janus Henderson Small Cap Value A	11.38	10.10	11.07	34.20	21	2
22 Sterling Capital Behav Sm Cp Val Eq A	15.60	9.46	10.33	34.40	22	2
23 Guggenheim Mid Cap Value A	15.76	11.13	9.39	36.00	23	2
24 Victory Integrity Small-Cap Value A	16.14	8.52	10.78	36.00	23	2
25 American Beacon Small Cp Val A	15.03	9.33	10.64	36.20	25	2
26 VALIC Company II Small Cap Value	15.44	9.42	10.27	36.20	25	2

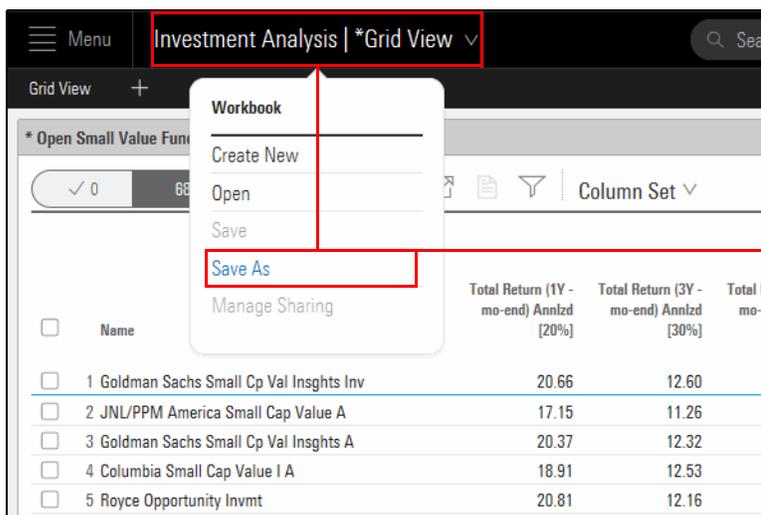
Conditional formatting can be applied to any numerical field

In addition to wanting to see the latest results of the screen each time you open it, you also want to ensure the custom column set, scorecard columns, and conditional formatting elements are seen along with it. To do this, you need to save the workbook.

**Exercise 11: Save the changes to the workbook**

To save the workbook, do the following:

1. At the top of the window, click the **Workbook** menu, then select **Save As**.

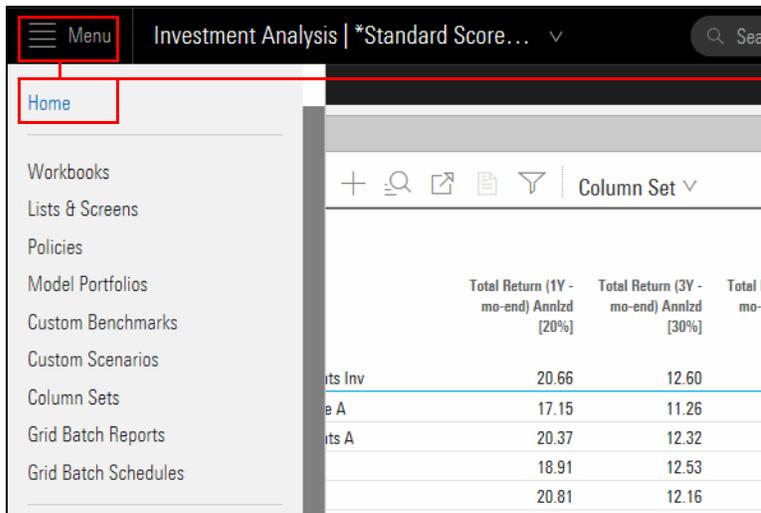


Use the workbook menu to select this option

2. Name the workbook **Standard Scorecard**, then click **Save**.

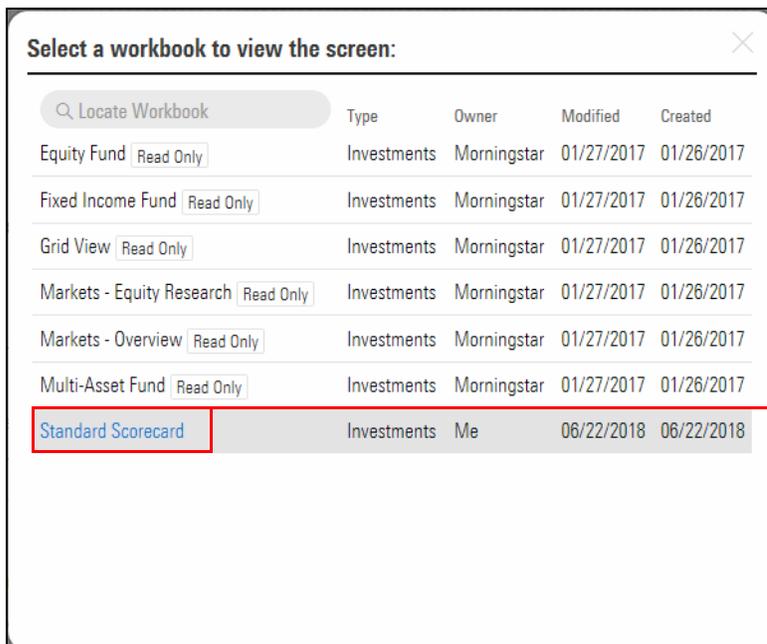
To practice opening this workbook, do the following:

1. From the **Menu** icon, select **Home**. The name of the screen you saved in [Screen for funds in the Small Cap Value Morningstar Category on page 18](#) appears at the top of the Lists & Screens tile.



Use this command to return to the Home page

2. Click **Open Small Value Funds**. The Select a workbook to view the screen: dialog box opens.
3. Click **Standard Scorecard**. The workbook opens. Note that the custom column set loads automatically, and the Peer Analytics settings are applied as well.



Selecting a workbook when opening a list or screen automatically associates it with that workbook in the future, too

## Identifying Top Actively Managed Funds

The first set of exercises you completed allowed you to practice using the Scorecard and Conditional Formatting capabilities in the Peer Analytics panel. This section introduces even more features of the Peer Analytics panel by showing you how to do the following:

- ▶ group funds by Morningstar Category
- ▶ apply conditional formatting with multiple rules (for different columns)
- ▶ view summary statistics for each group, and
- ▶ apply a scorecard to a list using only some of the data points in the column set.

You can use almost any list or screen of funds (or other investments) for the exercises that follow, but this exercise allows you to create a screen to find funds you can re-use for the subsequent exercises in this book.

To see the Active Share Score for a fund and the benchmark used for the calculation, first create a screen to ensure the funds you are viewing actually have an Active Share Score value. Additionally, while a high Active Share Score is admirable for actively managed funds, you will also look for funds that have a positive 3-year Sharpe Ratio (to demonstrate the risk-adjusted return value the manager is adding), and a positive 3-year Information Ratio (to see that the manager has also added excess return over the Morningstar Category Primary index).

Do the following:

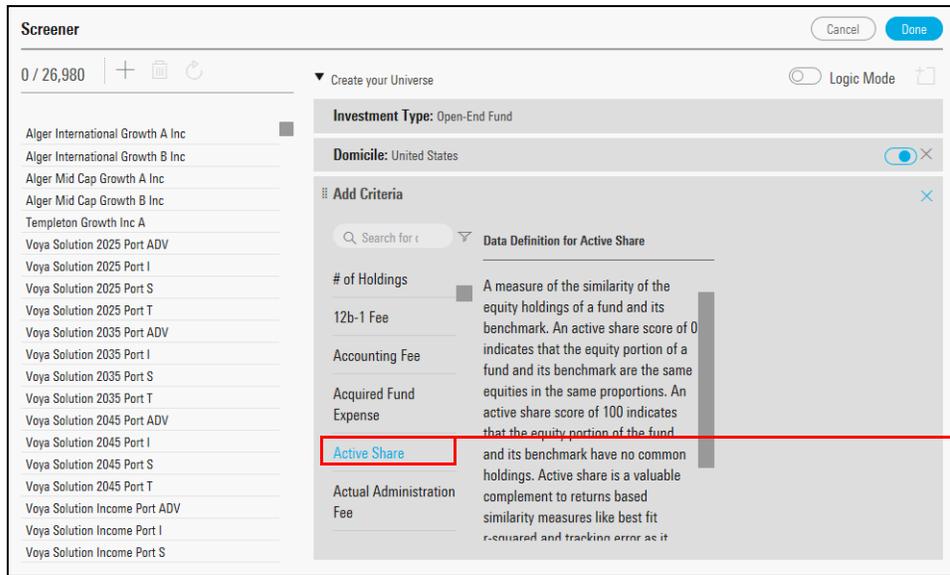
1. From the header, select **Create > Screen**. The Screener window opens.

The screenshot shows the Morningstar Direct web application interface. In the top right corner, there is a 'Create' menu icon (a pencil) which is highlighted with a red box. A dropdown menu is open, listing various options: Create, List, Screen, Custom Benchmark, Custom Scenario, Policy, Model Portfolio, Workbook, Note, and Grid Batch. The 'Screen' option is highlighted with a red box. A red arrow points from a text box on the right to the 'Screen' option. The text box contains the text: 'Use this icon to create a new screen'. Below the menu, there is a 'Model Portfolios' section with a message: 'There are no model portfolio accounts. To create a new model portfolio, click the icon in the upper right-hand corner.'

### Overview

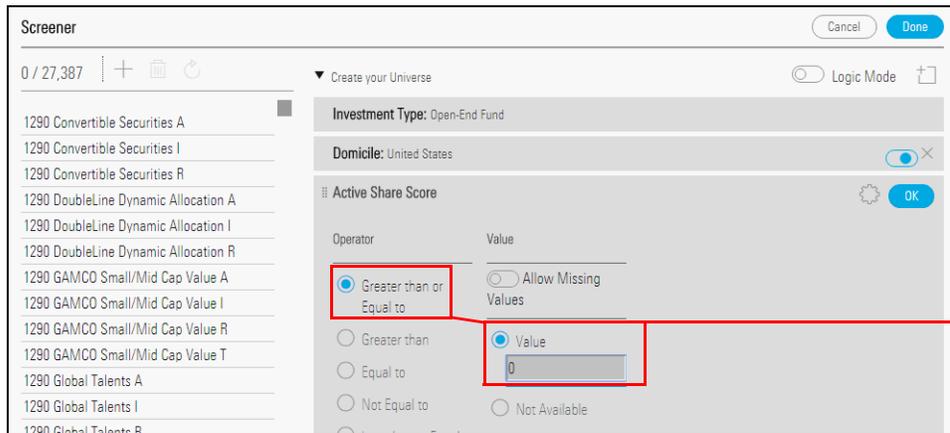
### Exercise 12: Create a screen to find actively managed funds

2. For Investment Type, select the option for **Open-End Fund**.
3. Click **OK**.
4. In the Add Criteria area, click **Active Share**.



If this data point does not appear here, search for it by name

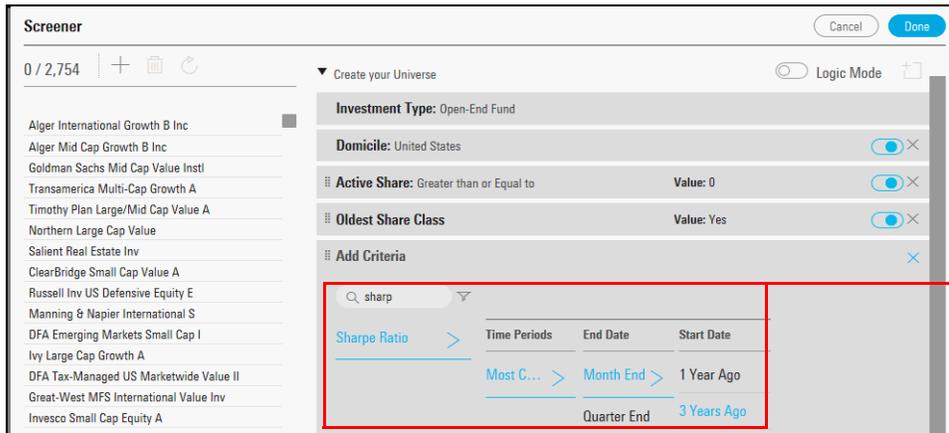
5. The Operator should be Greater than or Equal to. In the **Value** field, type **0**, then click **OK**.



These settings ensure any fund without an Active Share Score is excluded from the screen

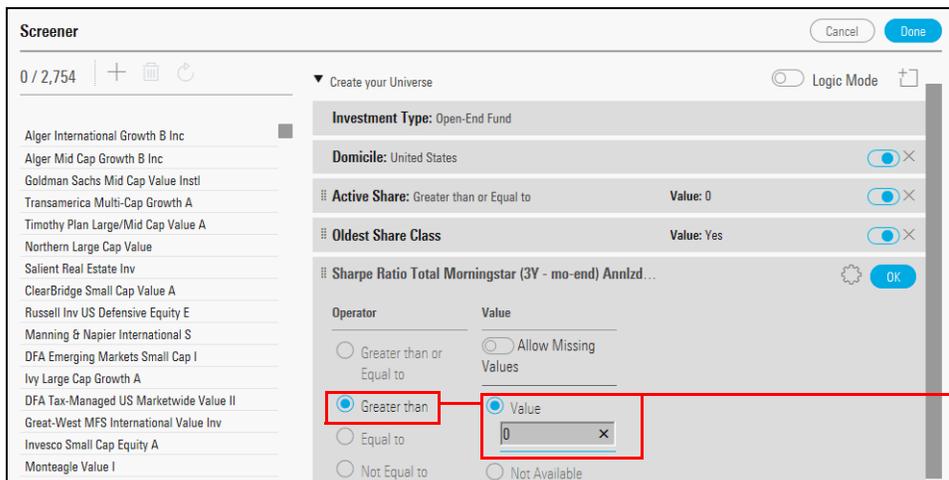
6. In the Add Criteria area, in the **Search for** field, type **old**, then select **Oldest Share Class**.
7. The option for Yes should be selected. Click **OK**.

- In the Add Criteria area, in the **Search for** field, type **sharp**, then select **Sharpe Ratio > Most Common > Month End > 3 Years Ago**.



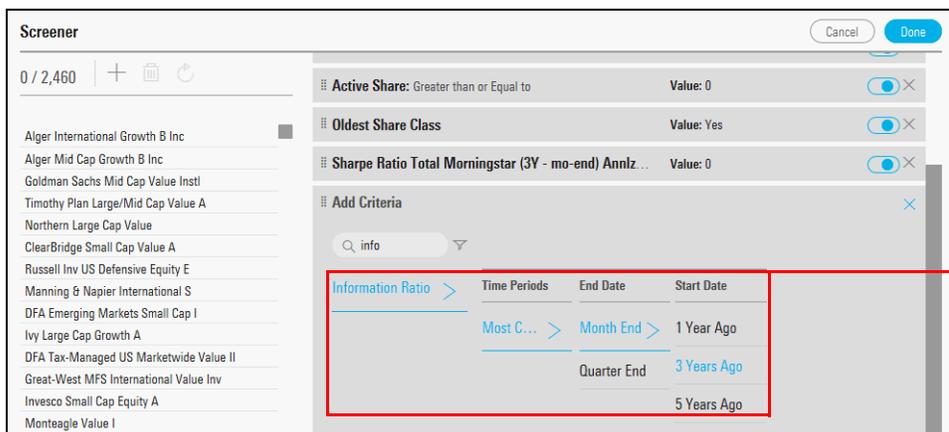
Note the data point and options selected here

- Set the Operator to **Greater than**.
- In the **Value** field, type **0**, then click **OK**.



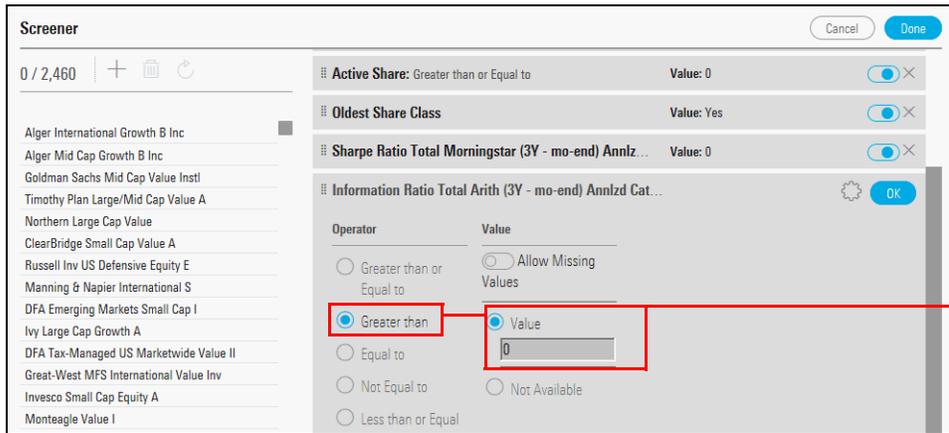
These settings ensure the screen returns only funds with a positive Sharpe Ratio.

- In the Add Criteria area, in the **Search for** field, type **info**, then select **Information Ratio > Most Common > Month End > 3 Years Ago**.

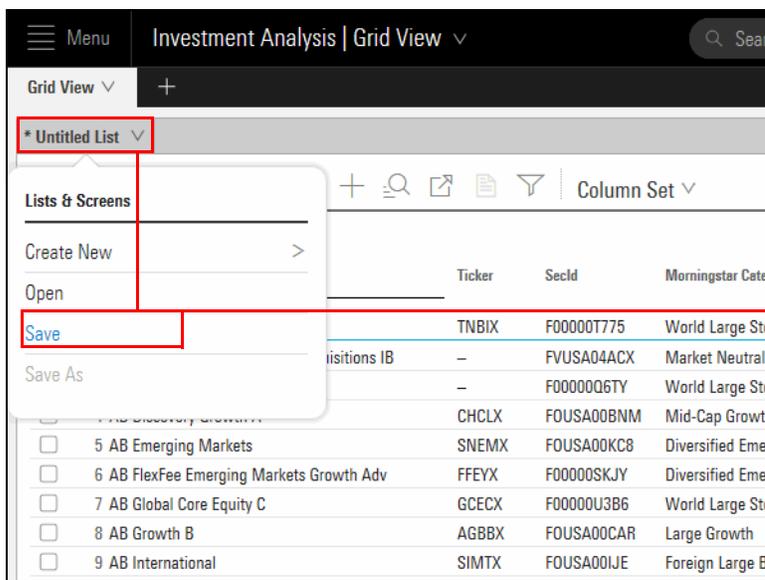


Note the data point and options selected here

12. Set the Operator to **Greater than**.
13. In the **Value** field, type **0**, then click **OK**.



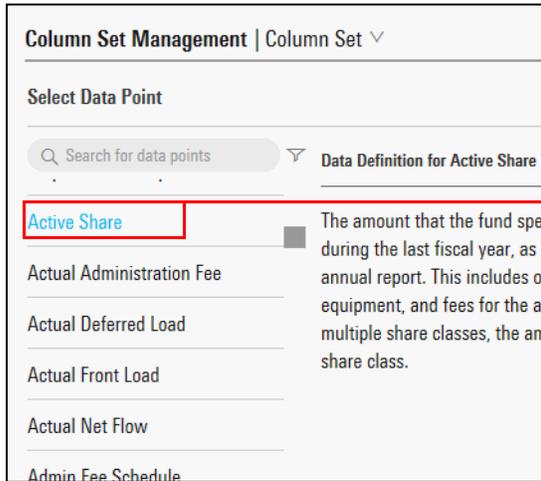
14. Click **Done**.
15. Save the screen as **Active Share Funds**.



To add the Active Share Score data point and benchmark for the active share calculation to the column set, do the following:

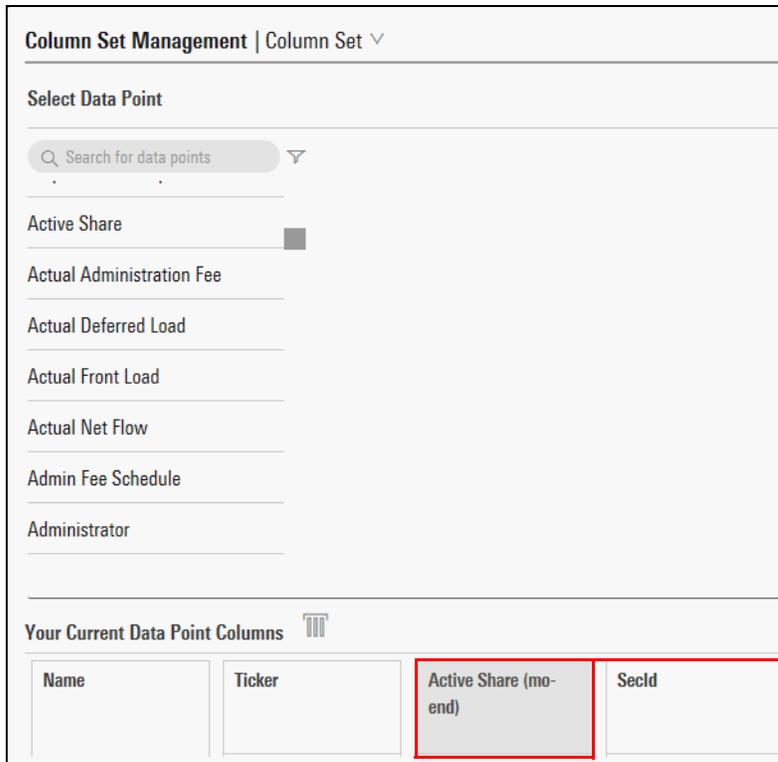
**Exercise 13: Add the Active Share Score data point and benchmark**

1. The default Summary column set is displayed. From the **Column Set** menu, select **Edit**. The Column Set Management window opens.
2. In the Column Set Management window, under the Search for data points field, click **Active Share**.



Scroll down a little to see this data point, or search for it by name

3. **Drag-and-drop** the **Active Share** data point to the left, until it is just to the right of Ticker.



Drag-and-drop the data point from the right side of the window to this position

- In the **Search for data points** field, type **bench**, then click **Benchmarks**.
- Under the Benchmark Type heading, select **Category Index ETF Proxy**.

The screenshot shows the 'Column Set Management' window with a search bar containing 'bench'. A dropdown menu is open under the search bar, with 'Benchmarks' selected. Below the search bar, a list of benchmark types is displayed, including 'Morningstar Index', 'Best Fit Index', 'Manager Designated Index', 'Broad Asset Class Index', 'Primary Prospectus Benchmark', 'Morningstar Category Index', and 'Category Index ETF Proxy'. The 'Category Index ETF Proxy' option is highlighted with a red box. A callout box on the right says 'Note the search term, and the data point to select'. Another callout box points to the 'Category Index ETF Proxy' option with the text 'Select this option'.

- Drag-and-drop the **Category Index ETF Proxy** data point until it is just to the right of the Active Share data point.

The screenshot shows the 'Column Set Management' window with the search results from the previous step. The 'Category Index ETF Proxy' data point has been dragged and dropped into the 'Your Current Data Point Columns' section. The columns are: Name, Ticker, Active Share (mo-end), and Category Index ETF Proxy. A callout box on the right says 'Drag-and-drop the data point from the right side of the window to this position'.

- Click **Done**.

8. Save the column set as **My Active Share Score**.

The screenshot shows the Morningstar Investment Analysis Grid View. The 'Column Set' dropdown menu is open, and the 'Save As Column Set' option is highlighted with a red box. A red arrow points from this option to a text box that says 'Use this command to save the column set'.

Name	Ticker	Active Share	Benchmark
1 1290 SmartBeta Equity I	TNB		
2 1290 VT GAMCO Mergers & Acquisitions IB	-		
3 1290 VT SmartBeta Equity K	-		
4 AB Discovery Growth A	CHC		
5 AB Emerging Markets	SNE		
6 AB FlexFee Emerging Markets Growth Adv	FFE		
7 AB Global Core Equity C	GCECX	92.19	F000
8 AB Growth B	AGBBX	75.47	iShares Russell 1000 Growth ETF FOUS
9 AB International	SIMTX	87.31	iShares MSCI ACWI ETF FOUS
10 AB Large Cap Growth A	APGAX	70.84	iShares Russell 1000 Growth ETF FOUS
11 AB Small Cap Growth A	QUASX	84.51	iShares Russell 2000 Growth ETF FOUS

9. Click the **Active Share** column header to sort in ascending order.

10. Click the **Active Share** column header again to sort in descending order.

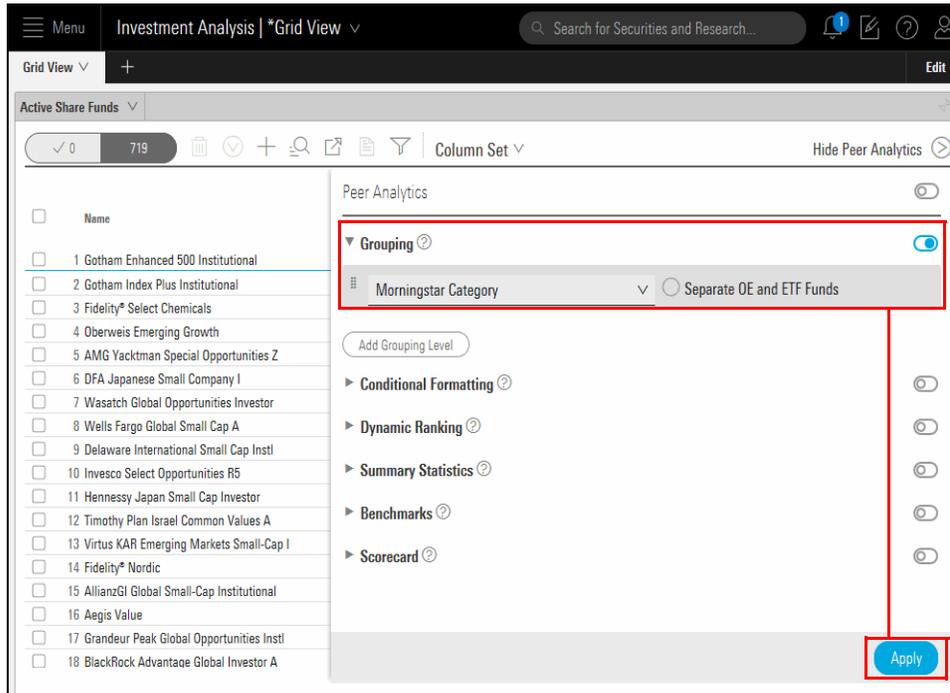
The screenshot shows the Morningstar Investment Analysis Grid View with the 'Active Share' column header highlighted by a red box. A red arrow points from this box to a text box that says 'Note the sort order for this column'. The table below is sorted in descending order of Active Share.

Name	Ticker	Active Share	Benchmark
1 Gotham Enhanced 500 Institutional	GENFX	152.71	iShares Russell 1000 ETF
2 Gotham Index Plus Institutional	GINDX	136.48	iShares Russell 1000 ETF
3 Fidelity* Select Chemicals	FSCHX	100.00	iShares North American
4 Oberweis Emerging Growth	OBEEX	99.99	-
5 AMG Yacktman Special Opportunities Z	YASLX	99.99	-
6 DFA Japanese Small Company I	DFJSX	99.99	iShares MSCI Japan ETF
7 Wasatch Global Opportunities Investor	WAGOX	99.98	-
8 Wells Fargo Global Small Cap A	EKGAX	99.98	-
9 Delaware International Small Cap Instl	DGGIX	99.97	-

To group funds by Morningstar Category, do the following:

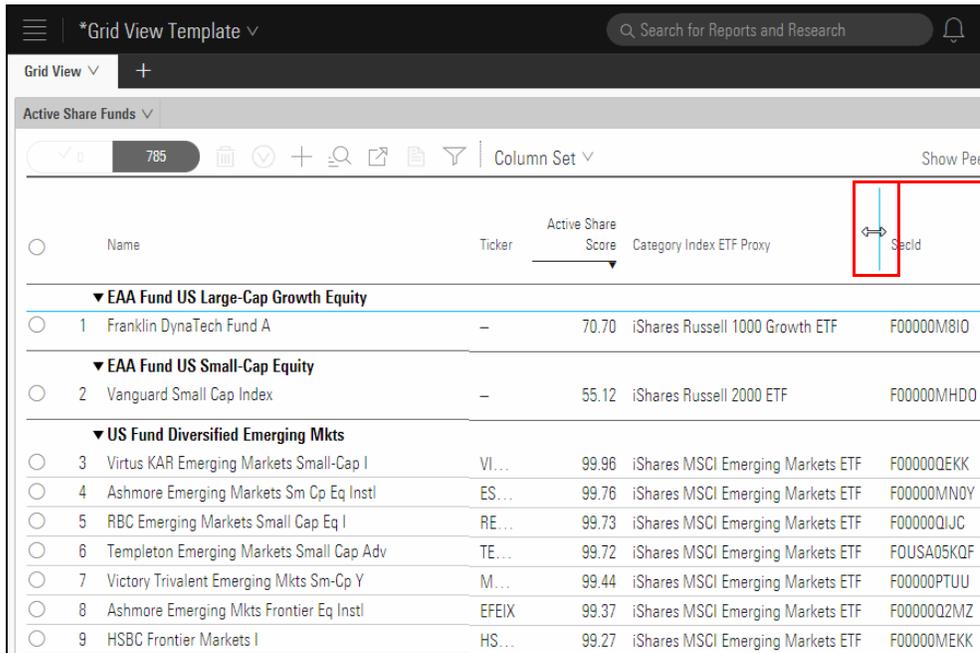
1. On the right side of the grid header, click **Show Peer Analytics**. The Peer Analytics panel opens.
2. Click the **Grouping** switch to activate it. In the drop-down field, Morningstar Category should already be selected.
3. Click **Apply**.

**Exercise 14: Group funds by Morningstar Category**



After enabling the Grouping capability, click Apply

- In the upper-right corner of the Peer Analytics panel, click **Hide Peer Analytics**. You can now see the funds with the highest Active Share Score at the top of each category.



	Name	Ticker	Active Share Score	Category Index	ETF Proxy
<b>▼ EAA Fund US Large-Cap Growth Equity</b>					
1	Franklin DynaTech Fund A	-	70.70	iShares Russell 1000 Growth ETF	F00000M8IO
<b>▼ EAA Fund US Small-Cap Equity</b>					
2	Vanguard Small Cap Index	-	55.12	iShares Russell 2000 ETF	F00000MHDO
<b>▼ US Fund Diversified Emerging Mkts</b>					
3	Virtus KAR Emerging Markets Small-Cap I	VI...	99.96	iShares MSCI Emerging Markets ETF	F00000QEKK
4	Ashmore Emerging Markets Sm Cp Eq Instl	ES...	99.76	iShares MSCI Emerging Markets ETF	F00000MN0Y
5	RBC Emerging Markets Small Cap Eq I	RE...	99.73	iShares MSCI Emerging Markets ETF	F00000QIJC
6	Templeton Emerging Markets Small Cap Adv	TE...	99.72	iShares MSCI Emerging Markets ETF	F0USA05KQF
7	Victory Trivalent Emerging Mkts Sm-Cp Y	M...	99.44	iShares MSCI Emerging Markets ETF	F00000PTUU
8	Ashmore Emerging Mkts Frontier Eq Instl	EFEIX	99.37	iShares MSCI Emerging Markets ETF	F00000Q2MZ
9	HSBC Frontier Markets I	HS...	99.27	iShares MSCI Emerging Markets ETF	F00000MEKK

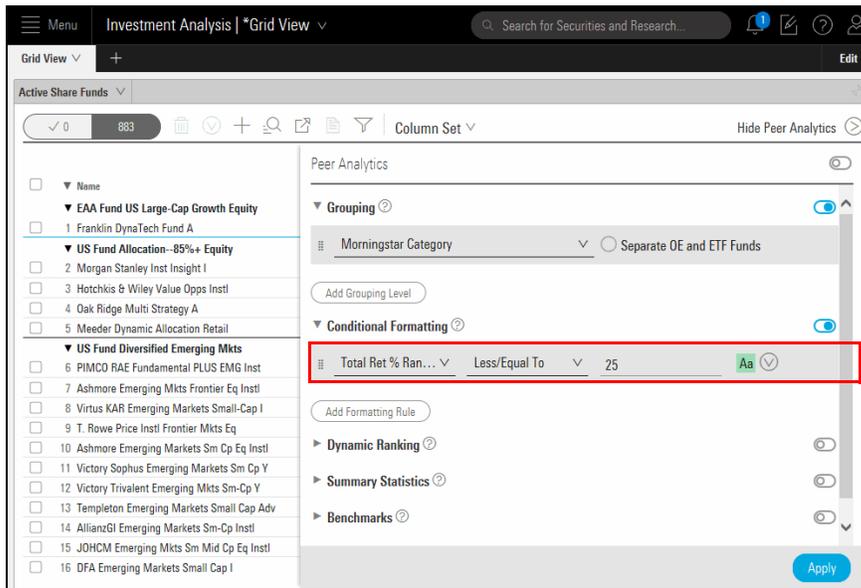
You may need to widen this column to make it easier to read the full name of the ETF proxy.

One way to clarify information in the Grid View component is to apply conditional formatting to numerical values. In this exercise, you will add color to the funds appearing in the top quartile of their category for the trailing 3-year period.

**Exercise 15: Apply conditional formatting to a column**

Do the following:

1. Click **Show Peer Analytics**.
2. Click the switch for **Conditional Formatting**.
3. From the **first drop-down field**, select **Total Ret % Rank Cat 3Y mo-end**.
4. Change the next drop-down field to **Less/Equal To**.
5. In the **Numeric Value** field, type **25**
6. Click the **Formatting Style** icon, and select **green**.



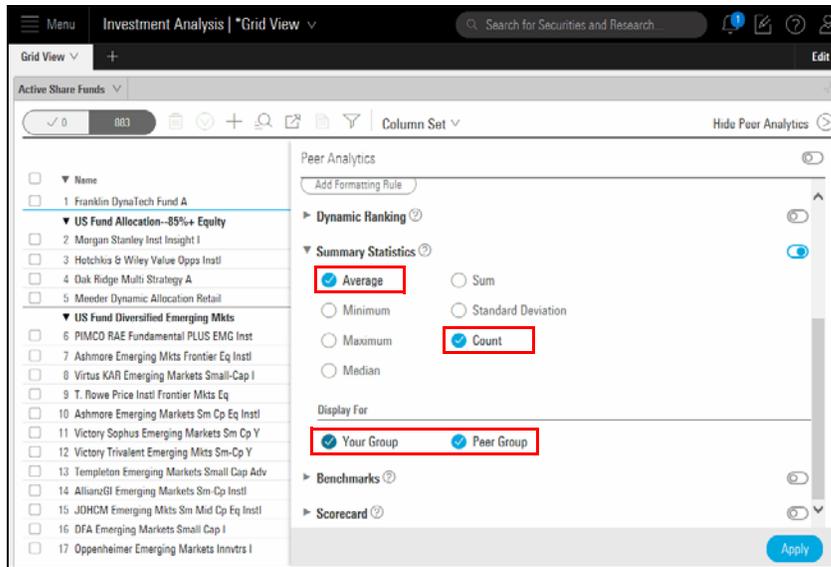
Note the selections for this area

7. Click **Apply**.
8. Click **Hide Peer Analytics**.

Looking at the category performance for the funds is helpful, but it's also useful to see values for each category itself. To see summary statistics for each category, do the following:

**Exercise 16: View the average and count values for each category group**

1. Click **Show Peer Analytics**.
2. Click the switch for **Summary Statistics**. The Average option is selected by default.
3. Select the option for **Count**. (The Average option should remain selected.)
4. Under the Display For section, the option for Peer Group is selected by default. Select the option for **Your Group**. (The Peer Group option should remain selected)



Be sure to select only the highlighted items in this area

5. Click **Apply**.
6. Click **Hide Peer Analytics**. Note the rows added at the bottom of each group, and the values calculated (where possible).

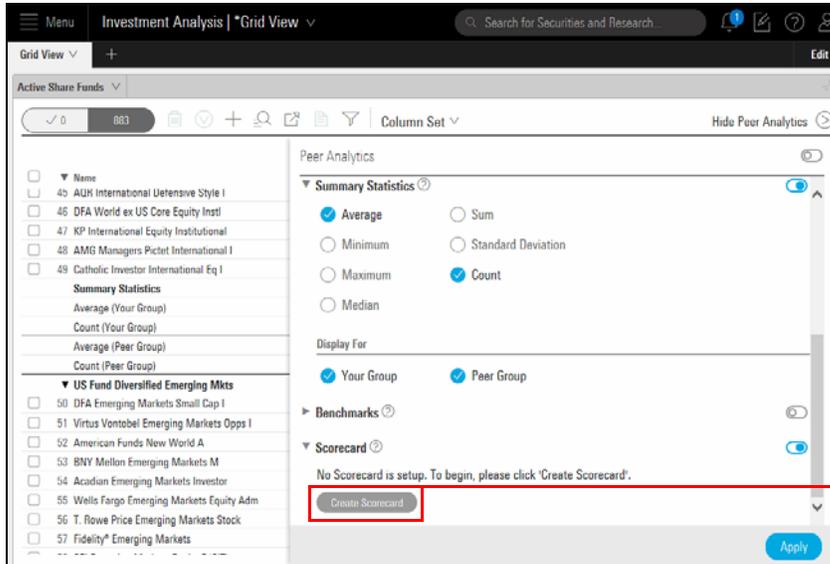
Name	Active Share	Total Ret % Rank	Morningstar Rating 3Y	Morningstar Sustainability Rating
2 AllianzGI Emerging Markets Sm-Cp Instl	99.24	61	★★★	🌐
3 BMO LGM Emerging Markets Equity I	95.45	46	★★★★	🌐🌐🌐
4 DFA Emerging Markets Small Cap I	95.99	55	★★★★	🌐
5 Fidelity Advisor* EMEA I	92.80	14	★★★★	🌐🌐🌐
6 Fidelity Advisor* Emerg Mkts Discv I	92.69	55	★★★★	🌐
7 JOHCM Emerging Mkts Sm Mid Cp Eq Instl	98.82	28	★★★★	🌐
8 PIMCO RAE PLUS EMG Instl	100.00	1	★★★★★	-
9 T. Rowe Price Instl Frontier Mkts Eq	99.80	59	★★★★	-
10 Timothy Plan Emerging Markets A	93.59	20	★★★★	🌐🌐🌐
11 Victory Trivalent Emerging Mkts Sm-Cp Y	99.59	53	★★★★	-
12 Virtus KAR Emerging Markets Small-Cap I	99.72	2	★★★★★	-
<b>Summary Statistics</b>				
Average (Your Group)	97.06	35	-	-
Count (Your Group)	11.00	11	-	-
Average (Peer Group)	76.13	50	-	-
Count (Peer Group)	589.00	788	-	-

These rows were added by virtue of enabling the Summary Statistics options.

To create a scorecard using the data columns being shown, do the following:

1. Click **Show Peer Analytics**.
2. Click the switch for **Scorecard**.
3. Click **Create Scorecard**. The Scorecard window opens.

**Exercise 17: Apply a standard scorecard to the list**



Click this button to create a scorecard

4. Enter the following values in the **Total Weight** column:

Data Point	% Weight
Total Return (3Y - mo-end) Annlzd	25
Alpha Total (non-excess return) (3Y - mo-end) Annlzd	25
Standard Deviation Total (3Y - mo-end) Annlzd	25
Sharpe Ratio Total Morningstar (3Y - mo-end) Annlzd	25

Note: The Scoring value for Standard Deviation is automatically set to Lower is Better. No weight should be entered for the Active Share or Beta Total rows.

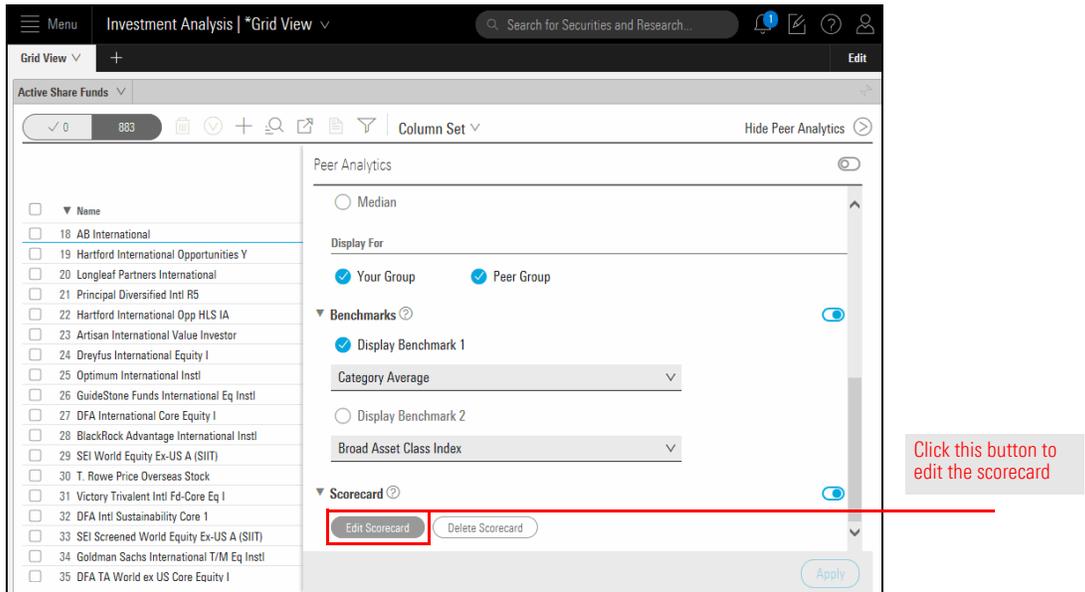
Note that only certain columns are being used in the scorecard

- Click **Done**.
- Click **Hide Peer Analytics**.
- Scroll right** to see the Scorecard columns. Note that because standard scoring is being used, a lower score is better than a high score.

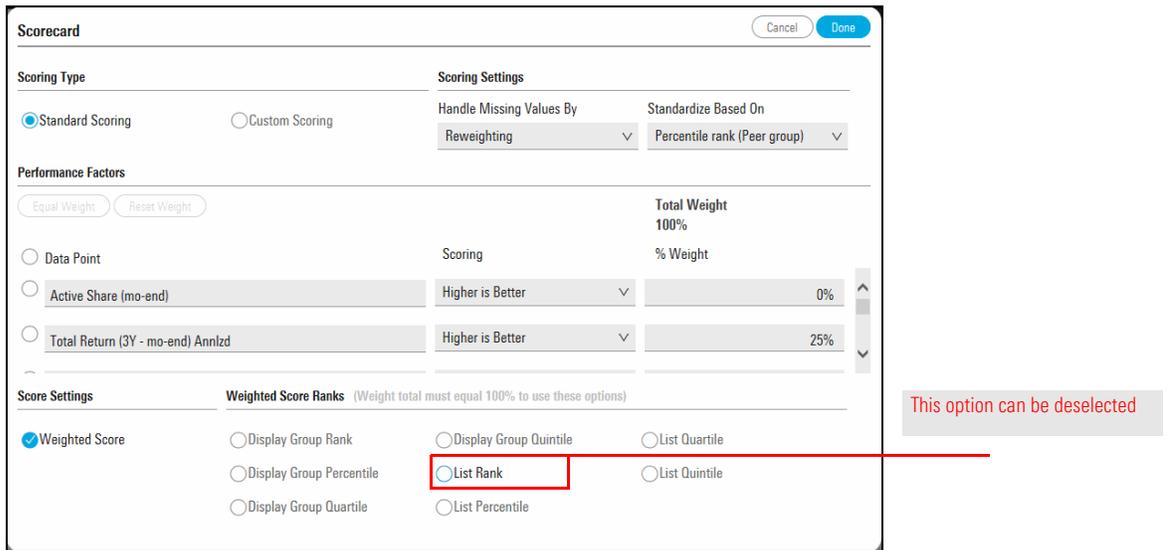
Name	Alpha Total (non-excess return) (3Y - mo-end) Annlzd (25%)	Beta Total (non-excess return) (3Y - mo-end)	Standard Deviation Total (3Y - mo-end) Annlzd (25%)	Sharpe Ratio Total Morningstar (3Y - mo-end) Annlzd (25%)	Weighted Score	Weighted Score List Rank
18 AB International	0.97	0.83	10.67	0.45	22.00	205
19 Hartford International Opportunities Y	0.90	0.88	11.22	0.44	26.75	326
20 Longleaf Partners International	2.64	1.20	16.20	0.52	30.75	406
21 Principal Diversified Intl RS	1.23	0.85	10.87	0.47	19.50	162
22 Hartford International Opp HLS IA	1.00	0.89	11.41	0.45	26.25	310
23 Artisan International Value Investor	0.96	0.82	10.70	0.43	23.25	232
24 Dreyfus International Equity I	0.52	0.94	12.31	0.40	45.25	654
25 Optimum International Instl	3.46	0.86	10.88	0.68	8.25	28
26 GuideStone Funds International Equ Intl	1.70	0.94	11.70	0.51	26.25	310

This column can be removed from the component.

8. Click **Show Peer Analytics**.
9. Click **Edit Scorecard**. The Scorecard window opens.

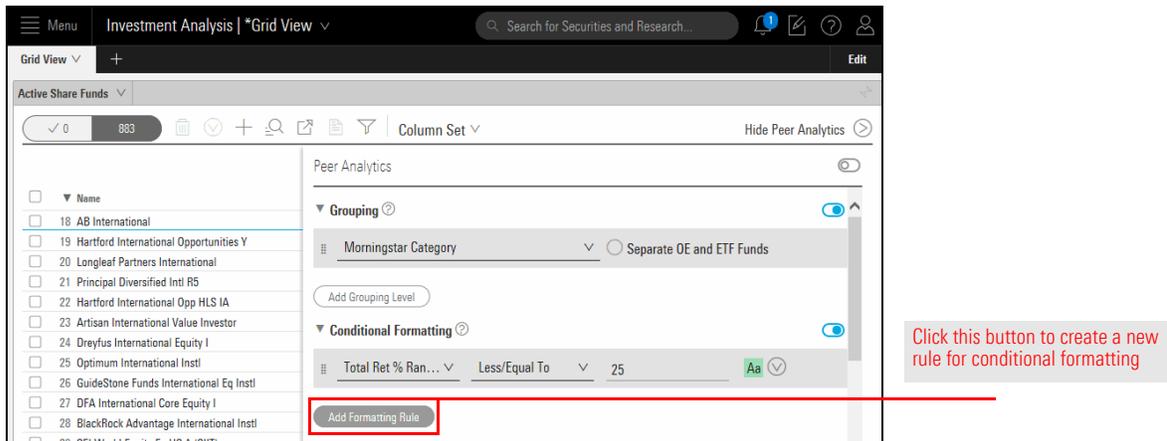


10. Deselect the option for **List Rank**.



11. Click **Done**.
12. Click **Hide Peer Analytics**.
13. **Scroll right** to see the Scorecard column. How do the range of values in the Weighted Score column compare to one another? It can be difficult to say just by scrolling up and down. It would be easier to distinguish them if they could be viewed as a heat map, where the values are automatically assigned a corresponding color.
14. Click **Show Peer Analytics**.

15. Under the Conditional Formatting area, click **Add Formatting Rule**.

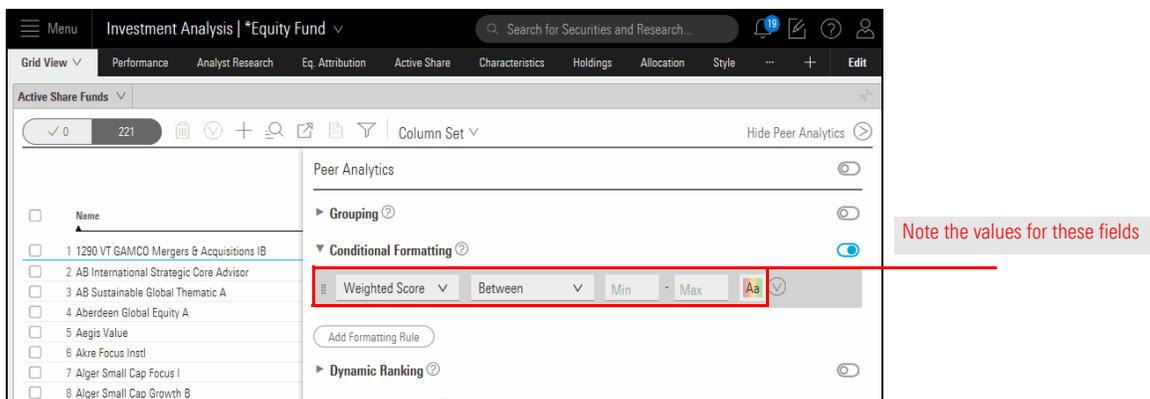


16. From the **first drop-down field**, select **Weighted Score**.

17. From the **Choose Operator** field, select **Between**.

18. The Value fields should read Min - Max.

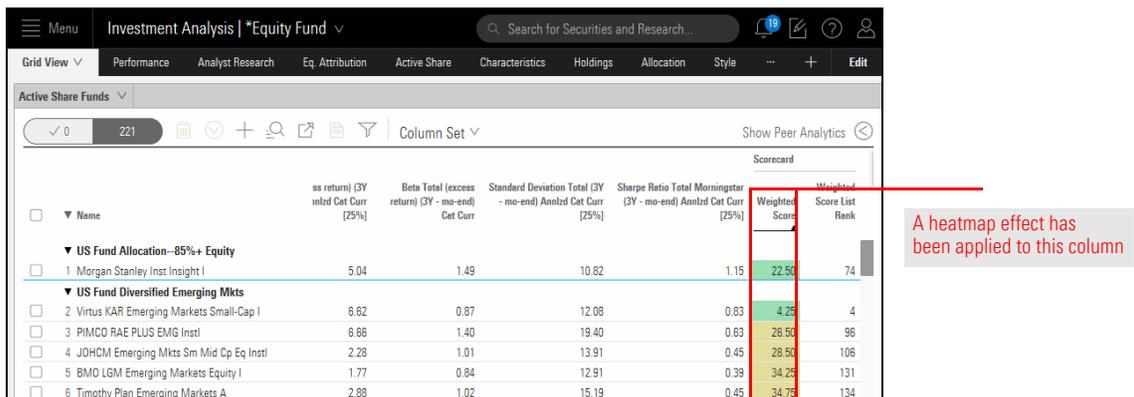
19. Be sure the **Formatting Style** icon reflects the **multi-color** option.



20. Click **Apply**.

21. Click **Hide Peer Analytics**.

22. **Scroll right** to see the Weighted Score column.



23. Save the workbook with the name **Active Share Performance Report**.

The screenshot shows the Morningstar software interface. At the top, the title bar reads "Investment Analysis | \*Grid View". Below this, a "Workbook" menu is open, listing options: "Create New", "Open", "Save", "Save As", and "Manage Sharing". The "Save As" option is highlighted with a red box. A red line connects this box to a callout box on the right that says "Use the workbook menu to select this option".

	Active Share	Category	Index	ETF Proxy
18 AB Internati	87.29	iShares MSCI ACWI E		
19 Hartford Inte.	90.47	iShares MSCI ACWI E		
20 Longleaf Partners International	99.46	iShares MSCI ACWI E		
21 Principal Diversified Intl R5	88.72	iShares MSCI ACWI E		
22 Hartford International Opp HLS IA	90.47	iShares MSCI ACWI E		
23 Artisan International Value Investor	96.30	iShares MSCI ACWI E		
24 Dreyfus International Equity I	93.72	iShares MSCI ACWI E		

## Creating a Custom Scorecard

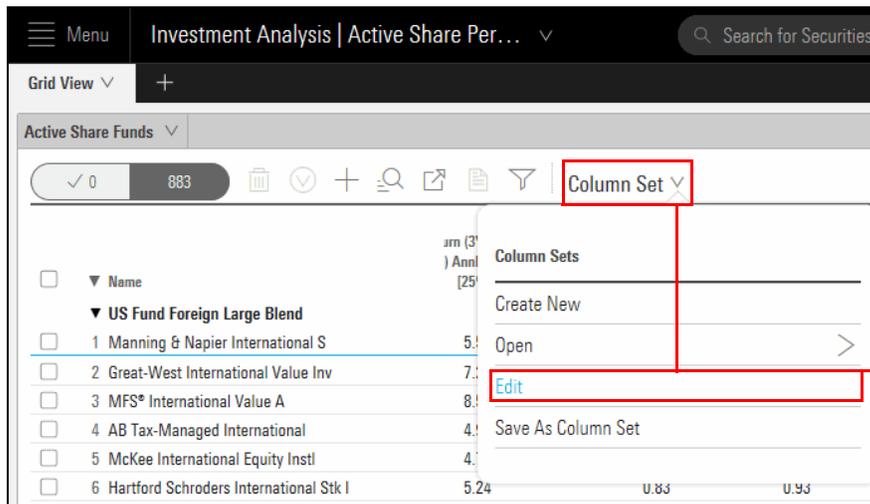
In this example, you will create a custom scorecard based on the category rank value for a series of periods. Specifically, the custom scorecard will evaluate how frequently a fund appeared in the top quartile of its category in each period.

When creating a screen, no option exists to see if a value such as Return or Expense Ratio is above or below the category average. Instead, you must first find the numeric value for the category average, then use that number when creating a screen. In this exercise, you will locate the category average for Prospectus Net Expense Ratio and the 5-year Sharpe Ratio in the Large Blend category. In the next exercise, you will use this value to create a screen for Large Blend funds.

One way to find the Large Blend category average for Prospectus Net Expense Ratio and 5-year Sharpe Ratio would be to create a new screen where you look in the Category universe to find the value for that data point. The Active Share Performance Report workbook you have open, however, probably contains that category, and the Peer Analytics panel allows you to display Summary Statistics for it, too. In fact, in [Exercise 16 on page 38](#) you enabled the Average values in the Peer Analytics panel. Therefore, all you need to do is ensure the correct data points are showing in the column set, then find the correct category to locate the average value for the Prospectus Net Expense Ratio and 5-year Sharpe Ratio.

Do the following:

1. The Active Share Performance Report workbook should be open. From the **Column Set** menu, select **Edit**. The Column Set Management window opens.



### Overview

### Exercise 18: Find the average value for a data point

Use the Column Set menu to select this command in order to add the Prospectus Net Expense Ratio and 5-year Sharpe Ratio to the column set

2. Add the following data points to the column set:

- ▶ **Prospectus Net Expense Ratio**, and
- ▶ **Sharpe Ratio 5Y (mo-end)**.

The screenshot shows the 'Column Set Management' window. On the left, 'Sharpe Ratio' is selected in the sidebar. A dropdown menu is open, with 'Most Common' and 'Month End' highlighted. Below, the 'Your Current Data Point Columns' section shows a list of metrics, with 'Prospectus Net Expense Ratio' and 'Sharpe Ratio Total Morningstar (5Y - mo-end) Annlzd USD' highlighted.

Be sure to add the correct two data points to the column set

3. Click **Done**.

4. Locate the **US Fund Large Blend** category.

The screenshot shows the 'Active Share Funds' list. The 'US Fund Large Blend' category is highlighted with a red box. The table below shows the following data:

Name	3Y Total Return (Cat Curr)	Beta Total (excess return) (3Y - mo-end) Cat Curr	Standard Deviation (3Y - mo-end)
35 Matthew 25	-1.31	1.20	
36 Rock Oak Core Growth	-0.11	1.26	
37 Gotham Enhanced 500 Institutional	1.31	1.09	
38 Gotham Index Plus Institutional	2.54	1.08	
39 Fort Pitt Capital Total Return	0.75	0.95	

Be careful; note that the categories are not listed in alphabetical order

5. **Scroll down** to the bottom of the category until you see the Summary Statistics area, then **scroll right** to see the values for the Prospectus Net Expense Ratio and 5-Year Sharpe Ratio columns you added.

Name	Beta Total (non-process return) (3Y - mo-end)	Standard Deviation Total (3Y - mo-end) Annlzd (25%)	Sharpe Ratio Total Morningstar (3Y - mo-end) Annlzd (25%)	Prospectus Net Expense Ratio	Sharpe Ratio Total Morningstar (5Y - mo-end) Annlzd USD	Scorecard Weighted Score
398 Meritage Growth Equity Institutional	0.97	10.57	1.10	1.04	-	27.00
399 Fidelity Advisor® Series Equity Gr	1.01	11.91	1.19	0.00	-	20.50
400 Entrepreneur US Large Cap Institutional	0.93	10.39	1.32	0.75	-	8.25
401 Bridge Builder Large Cap Growth	1.02	11.08	0.97	0.29	-	47.00
402 American Century NT Disciplined Gr Inv	1.03	11.16	0.94	1.02	-	51.75
<b>Summary Statistics</b>						
Average (Your Group)	1.06	12.20	1.04	0.91	1.26	-
Count (Your Group)	223.00	223.00	223.00	223.00	215.00	-
<b>Average (Peer Group)</b>	1.04	11.86	0.94	<b>1.07</b>	<b>1.18</b>	-

Be sure to take note of the Peer Group values, not the values for Your Group

6. In the following table, record the **Average (Peer Group)** value for the category and each data point:

Category	Prospectus Net Expense Ratio	5-Year Sharpe Ratio (mo-end)
Large Blend		

The screen for this example considers funds only in the US Fund Large Blend category. The funds must also meet the following criteria:

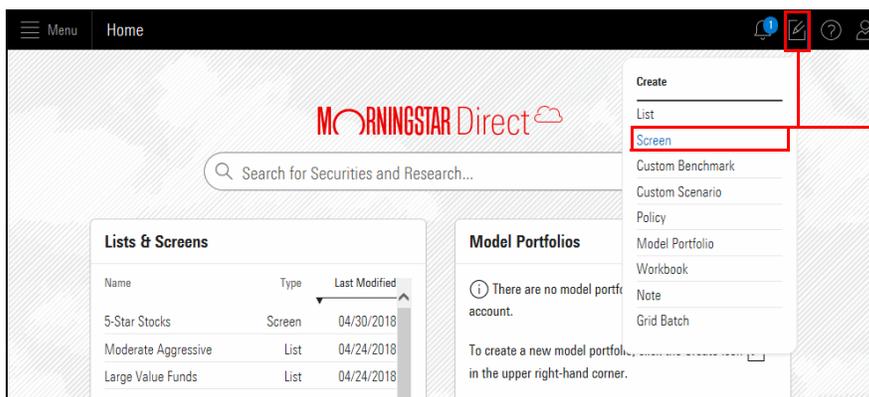
- ▶ at least five years old
- ▶ below-average expense ratio
- ▶ above-average 5-year Sharpe Ratio
- ▶ Downside Capture Ratio 5-year of less than 100, and
- ▶ open to new investors.

**Exercise 19: Create a screen to find funds in the Large Blend Morningstar Category**

To find these funds, do the following:

1. From the **Create** icon, select **Screen**. The Screener window opens.

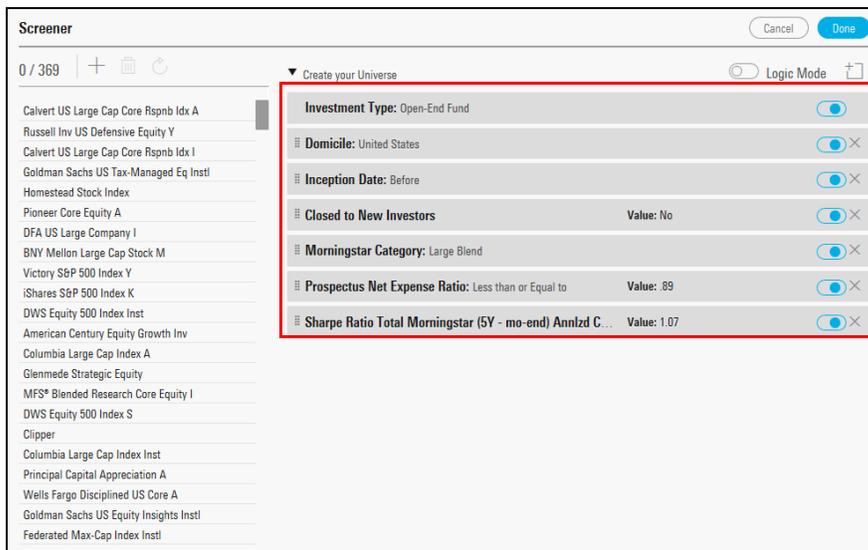
Note: When prompted to save the workbook, click **Don't Save**.



Use this icon to create a new screen

2. Create a screen with the following criteria:

Field	Value(s)
Investment Type	Open-End Fund
Domicile	United States
Inception Date	Before [mm/dd/yyyy] (use the first day of the current month from five years ago)
Closed to New Investors	No
Morningstar Category	Large Blend
Prospectus Net Expense Ratio	Less than or equal to [enter value from <a href="#">step 6 on page 46</a> ]
Sharpe Ratio Total Morningstar (5Y - mo-end) Annlzd Cat Curr:	Greater than or equal to [enter value from <a href="#">step 6 on page 46</a> ]



Carefully note the construction of this screen

3. Click **Done**.

4. **Save** the screen with the name **Large Blend Funds**.

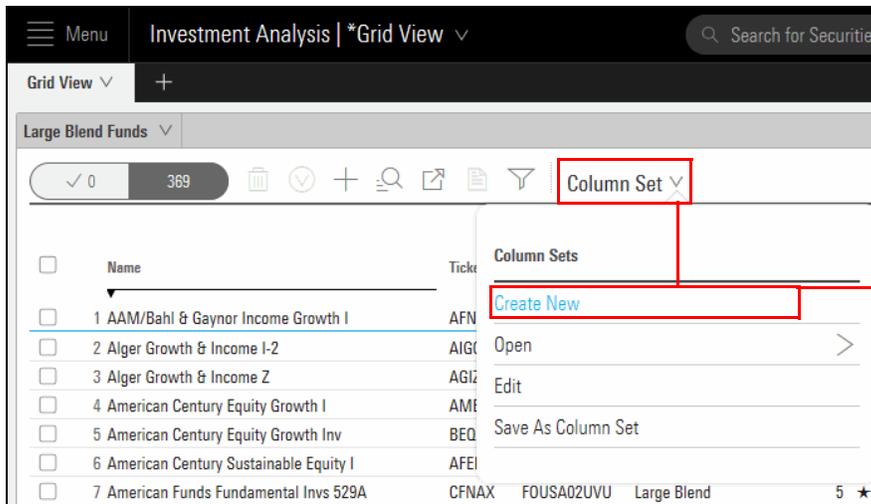
Before the scorecard can be created, the correct columns must be displayed in the Grid View component. In this exercise, you will create a custom column set to include the following data points:

**Exercise 20: Create a custom column set**

- ▶ Name
- ▶ Ticker
- ▶ Morningstar Analyst Rating
- ▶ Morningstar Quantitative Rating
- ▶ Prospectus Net Expense Ratio
- ▶ Sharpe Ratio 5Y mo-end
- ▶ 3Y Rolling Returns, and
- ▶ % Rank in Category for 1Y, 3Y, and 5Y periods.

Do the following:

1. From the **Column Set** menu, select **Create New**. The Column Set Management window opens.



2. Include the following data points:

- ▶ **Ticker**
- ▶ **Morningstar Analyst Rating**
- ▶ **Morningstar Quantitative Rating**
- ▶ **Prospectus Net Expense Ratio**
- ▶ **Sharpe Ratio 5Y mo-end**

3. To create the rolling return (three-year windows over the past five years, moving forward one quarter at a time), do the following:
  - A. **Search** for **Return**
  - B. Under Time Periods, select **Rolling**
  - C. In the **Start Date** field, type **-y5**, then select **5 Years From Last Month End**

The screenshot shows the 'Column Set Management' interface. In the 'Select Data Point' section, a search bar contains 'return'. Below the search bar, a list of data points is shown, with 'Return' highlighted. To the right, the 'Time Periods' section is expanded to show 'Rolling' selected. The 'Start Date' field contains '-y5' and '5 Years From Last' is selected from the dropdown. The 'End Date' field is empty. Other fields like 'Window Size', 'Window Size Granularity', 'Step Size', and 'Step Size Granularity' are also visible.

Note the term to search for

After entering the dash code, be sure to select 5 Years From Last Month End

- D. In the **End Date** field, type **-m0**, then select **Last Month End**
- E. From the **Window Size** drop-down field, select **3**
- F. From the **Window Size Granularity** drop-down field, select **Years**
- G. From the **Step Size** drop-down field, select **1**
- H. From the **Step Size Granularity** drop-down field, select **Quarters**
- I. Click **Add**

The screenshot shows the 'Column Set Management' interface with the final configuration. The 'Start Date' field now contains '5 Years From Last Month' and the 'End Date' field contains 'Last Month End'. The 'Window Size' is set to '3', 'Window Size Granularity' is 'Years', 'Step Size' is '1', and 'Step Size Granularity' is 'Quarters'. The 'Add' button is visible in the top right corner.

Note the values selected for these fields

4. Search for **Rank**, then select **Morningstar Standard Rank Collection (YTD/1Y/3Y/5Y)**.
5. Click the **X** to remove **Total Ret % Rank Cat YTD (mo-end)**.

Column Set Management | Column Set

Select Data Point

rank

- Morningstar Standard Rank Collection (YTD/1Y/3Y/5Y)
- Carbon Risk Score All Funds Rank
- Carbon Risk Score Components Percent Rank in Category
- Carbon Risk Score Percent Rank in Category
- Controversy Category Rank
- ESG Category Rank

Your Current Data Point Columns

	Sharpe Ratio Total Morningstar (5Y - mo-end) Annlzd USD	Total Return (SYLME - mo-end) 3 Year Rolling Annlzd USD	Total Ret % Rank Cat YTD mo-end (mo-end)	Total Ret % Rank Cat 1Y mo-end (mo-end)	Total Ret % Rank Cat 3Y mo-end (mo-end)	Total Ret % Rank Cat 5Y mo-end (mo-end)
	EDIT	EDIT	EDIT	EDIT	EDIT	EDIT

Remove this data point

6. Click **Done**.
7. From the **Column Set** menu, select **Save As Column Set**, and name the column set **Rolling Returns**. You now have the columns you need to create the scorecard.

Investment Analysis | \*Grid View

Search for Securities

Grid View

Large Blend Funds

Column Set

Column Sets

- Create New
- Open
- Edit
- Save As Column Set

Use this command to save the column set

Name	Ticker	Neutral	0.80
1 AAM/Bahl & Gaynor Income Growth I	AFN		
2 Alger Growth & Income I-2	AIGI		
3 Alger Growth & Income Z	AGIZ		
4 American Century Equity Growth I	AMF		
5 American Century Equity Growth Inv	BEQ		
6 American Century Sustainable Equity I	AFEIX	Neutral	0.80

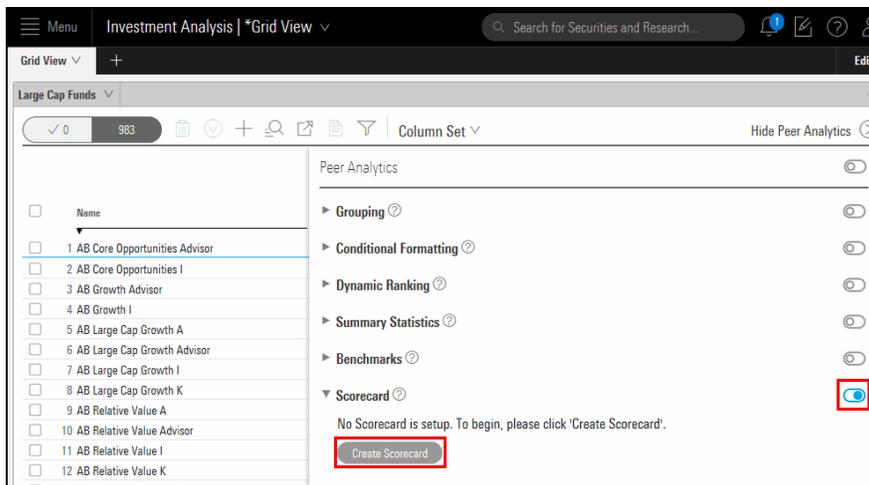
A custom scorecard allows you to choose which data points (from the column set you have displayed in the Grid View component) will be used to calculate the score, and assign a weighting to them as well. This way, rather than simply stating that a higher or lower value for a data point should contribute to a better score (as is the case with standard scoring), you can target specific values for a data point.

**Exercise 21: Create a custom scorecard**

In this example, you will target the Total Ret % Rank Cat columns in the Rolling Returns column set you created in [Exercise 20 on page 48](#). Each time a fund appears in the top quartile (a value of 25 or less), it will be awarded one point. Further, the longer time period will be weighted more heavily than the shorter time periods.

To create a custom scorecard, do the following:

1. The Large Cap Funds screen should be open, with the Rolling Returns column set displayed. Click **Show Peer Analytics**.
2. Click the **Scorecard** switch, then click **Create Scorecard**.



Be sure this switch is activated, then click Create Scorecard

3. Select the option for **Custom Scoring**.
4. From the **Custom Data Point** drop-down field, select **Total Ret % Rank Cat 1Y mo-end (mo-end)**.

The screenshot shows the 'Scorecard' configuration page. Under 'Scoring Type', 'Custom Scoring' is selected with a red box around it. A red line points from this box to a callout: 'This option should be selected'. Under 'Performance Factors', 'Custom Data Point' is selected in a dropdown menu, also with a red box. A red line points from this box to another callout: 'Select this data point'. The dropdown menu is open, showing several options, with 'Total Ret % Rank Cat 1Y mo-end (mo-end)' highlighted in blue. Other options include 'Prospectus Net Expense Ratio', 'Sharpe Ratio Total Morningstar (5Y - mo-end) Annlzd USD', and 'Total Return (06/01/2013 - 05/31/2016) 3 Year Rolling Annlzd USD'. The 'Custom Score Definition' section on the right has an 'Add Score' button.

5. From the Custom Score Definition field to the right, click **Add Score**. The Score Settings pop-up window opens.

This screenshot shows the same 'Scorecard' configuration page. The 'Custom Data Point' dropdown now displays 'Total Ret % Rank Cat 1Y mo-end (mo-end)'. A red box highlights the 'Add Score' button in the 'Custom Score Definition' section. A red line points from this box to a callout: 'This link allows you to set the parameters for your score'.

6. From the **Operator** drop-down field, select **Less/Equal To**.
7. In the **Value** field, enter **25**.
8. In the **Score** field, enter **1**. Leave the Display drop-down field as Use Score.
9. Click **Done**.

The screenshot shows the 'Scorecard' configuration window. A modal dialog titled 'Total Ret % Rank Cat 1Y mo-end (mo-end) - Score Settings' is open. It contains the following fields:

Operator	Value	Score	Display
Less/Equal To	25	1	Use Score

Buttons for 'Cancel' and 'Done' are visible in the top right of the dialog.

Note the values entered in these fields

10. Now that this rule is established, you can easily duplicate it for the other two % Rank in Cat data points. To the far right of the first rule you created, click the **Actions** icon, then select **Duplicate**.

The screenshot shows the 'Scorecard' configuration window. The 'Performance Factors' section lists 'Total Ret % Rank Cat 1Y mo-end (mo-end)' with a weight of 0%. To the right of this entry is an 'Actions' icon (a circle with a checkmark). A 'Data Point Score Options' menu is open, showing 'Duplicate' as an option.

Use the Action icon to duplicate the rule you just created

11. From the **Custom Data Point** drop-down field, select **Total Ret % Rank Cat 3Y mo-end (mo-end)**.
12. The score settings from the first rule automatically apply to this row; funds in the top quartile of their category will be awarded one point. To the far right of the second rule, click the **Actions** icon, then select **Duplicate**.
13. From the **Custom Data Point** drop-down field, select **Total Ret % Rank Cat 5Y mo-end (mo-end)**.

14. You can now enter the weightings for each performance factor. In the % Weight column, enter the values in the following table:

Data Point	% Weight
Total Ret % Rank Cat 1Y mo-end (mo-end)	20
Total Ret % Rank Cat 3Y mo-end (mo-end)	30
Total Ret % Rank Cat 5Y mo-end (mo-end)	50

The screenshot shows the 'Scorecard' configuration window. Under 'Performance Factors', three data points are listed with their respective weights: 20%, 30%, and 50%. A red box highlights the 'Total Weight' column, which shows a total of 100%.

Be sure the weightings for your score always equal exactly 100%

15. In the Score Settings section, **uncheck** the options for **Total Score** and **List Rank**.  
 16. Click **Done** to close the Scorecard window.

The screenshot shows the 'Score Settings' section of the 'Scorecard' configuration window. Under 'Weighted Score Ranks', the 'List Rank' option is highlighted with a red box. The 'Total Score' option is also highlighted with a red box. The 'Weighted Score' option is checked.

Both of the highlighted options should be deselected

17. Click **Apply**.
18. Click **Hide Peer Analytics**.
19. **Scroll right** to see the Scorecard column.

Name	um (SYLME - mo-end) 3 Year Rolling Annualized USD				Total Ret % Rank Cat	Total Ret % Rank Cat	Total Ret % Rank Cat	Scorecard
	14 - 12/01/2014 - 03/01/2015	03/01/2015 - 06/01/2015	06/01/2015 - 09/01/2015	09/01/2015 - 12/01/2015	1Y mo-end (mo-end) [20%]	3Y mo-end (mo-end) [30%]	5Y mo-end (mo-end) [50%]	Weighted Score
1 AB Core Opportunities Advisor	.51	11.80	10.99	11.20	81	57	60	0.00
2 AB Core Opportunities I	.53	11.81	11.01	11.21	81	57	59	0.00
3 AB Growth Advisor	.89	14.00	14.02	15.02	27	10	9	0.80
4 AB Growth I	.02	14.13	14.16	15.16	26	9	9	0.80
5 AB Large Cap Growth A	.21	14.34	13.74	14.12	57	21	9	0.80
6 AB Large Cap Growth Advisor	.50	14.64	14.02	14.39	53	18	7	0.80
7 AB Large Cap Growth I	.54	14.68	14.08	14.44	53	16	7	0.80
8 AB Large Cap Growth K	.14	14.27	13.66	14.04	57	22	9	0.80

The final step is to apply conditional formatting to the Weighted Score column to make the scores easier to read. Once that is complete, you can save the workbook to preserve the changes and additions you have made. Do the following:

**Exercise 22: Apply conditional formatting to the report**

1. Click **Show Peer Analytics**.
2. Click the switch to turn on **Conditional Formatting**.
3. From the **All Numeric Data** drop-down field, select **Weighted Score**.

4. Click **Apply**.
5. Click **Hide Peer Analytics**.

6. **Scroll right** to see the Weighted Score column with the conditional formatting applied.

	14 - 12/01/2014 - 11/30/2017	03/01/2015 - 02/28/2018	06/01/2015 - 05/31/2018	Total Ret % Rank Cat 1Y mo-end (mo-end) [20%]	Total Ret % Rank Cat 3Y mo-end (mo-end) [30%]	Total Ret % Rank Cat 5Y mo-end (mo-end) [50%]	Scorecard Weighted Score	
▼ US Fund Large Blend								
1 Alger Growth & Income I-2	.68	9.87	9.85	8.97	82	61	62	0.00
2 Alger Growth & Income Z	.91	10.03	10.04	9.20	81	96	61	0.00
3 American Century Equity Growth I	.79	8.63	9.52	9.54	7	50	46	0.20
4 American Century Equity Growth Inv	.57	8.41	9.30	9.32	8	54	53	0.20
5 American Century Sustainable Equity I	.33	10.33	10.82	10.46	8	31	33	0.20
6 American Funds Fundamental Invs 529A	.98	11.77	12.02	11.45	52	6	25	0.80
7 American Funds Fundamental Invs 529F1	.21	12.02	12.26	11.70	50	5	13	0.80
8 American Funds Fundamental Invs A	.07	11.87	12.11	11.54	52	6	21	0.80

A heat map effect has been applied to this column

7. **Save** the workbook as **Large Cap Performance Report**.

Use the workbook menu to select this option

## Setting Up a Grid Batch Report

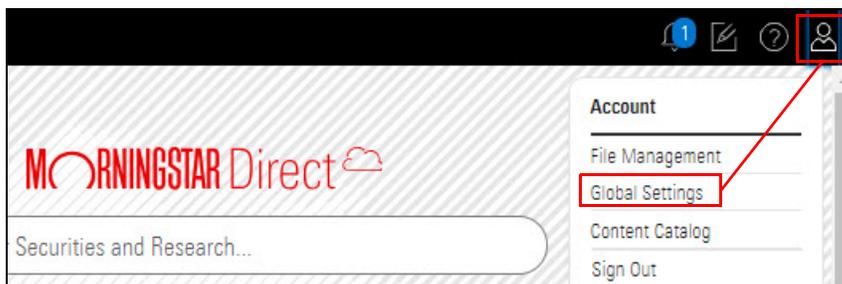
Now that the workbook is saved, you can create a grid batch report for it. Creating a grid batch report means that the values in the Grid View component will be calculated on a schedule and frequency you choose, and a Microsoft® Excel® file will be prepared, which you can easily share with others at your firm. This way, you do not have to remember to do this work manually. Each grid batch report supports only one workbook.

Taking advantage of grid batch reports involves the following basic steps:

1. Save a workbook with the list or screen to be calculated as part of the grid batch report.
2. Create a grid batch schedule (via the Create icon) to tell the system when the grid batch report should be created.
3. Visit the Grid Batch Reports page (via the Menu icon) to open or save a grid batch report.

When creating a grid batch, you set the time for the batch to run (such as 6:00). The batch will run when it's 6:00 a.m. in your time zone. The time zone setting is found in Global Settings. To set it, do the following:

1. At the far right side of the header, click the **Account** icon.
2. From the Account menu, select **Global Settings**. The Global Settings window opens.

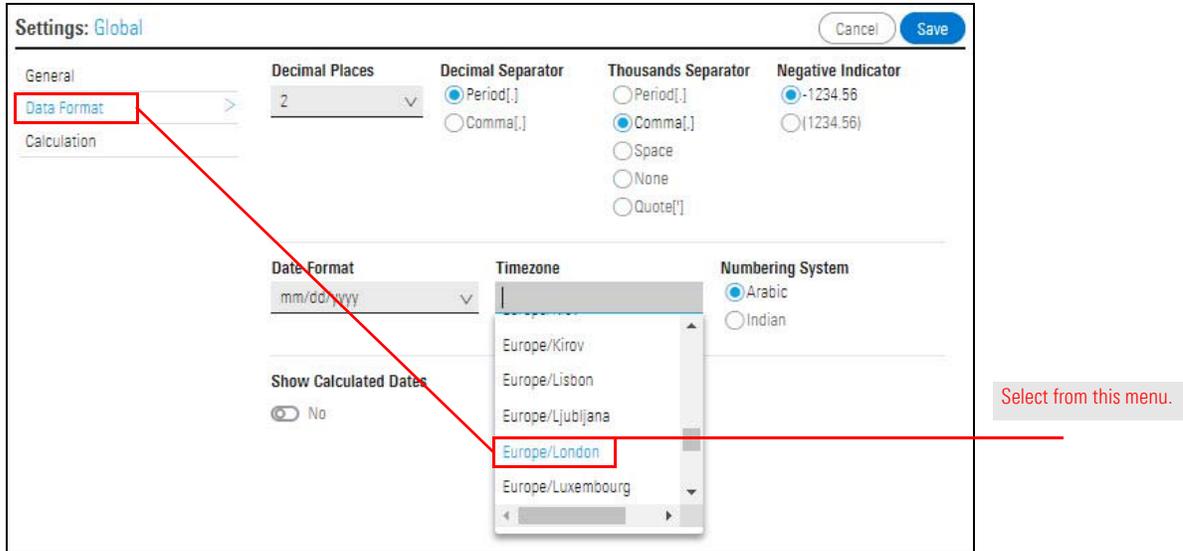


Note the highlighted selections.

### Overview

### Exercise 23: Set your time zone

3. Select the **Data Format** tab.
  4. From the **Timezone** menu, select a **time zone**.
- ☞ Note: **Scroll down** to see more time zone selections, or type a **keyword** (such as London) in the **Search** field at the top of the Timezone menu.

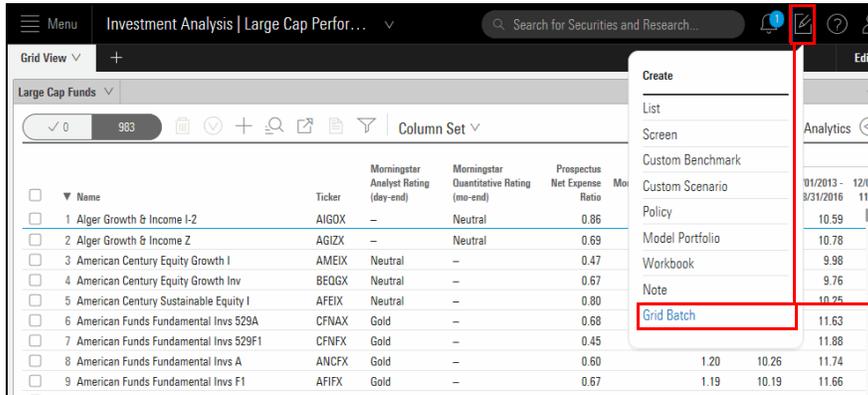


5. Click **Save**.

To create a monthly grid batch report, do the following:

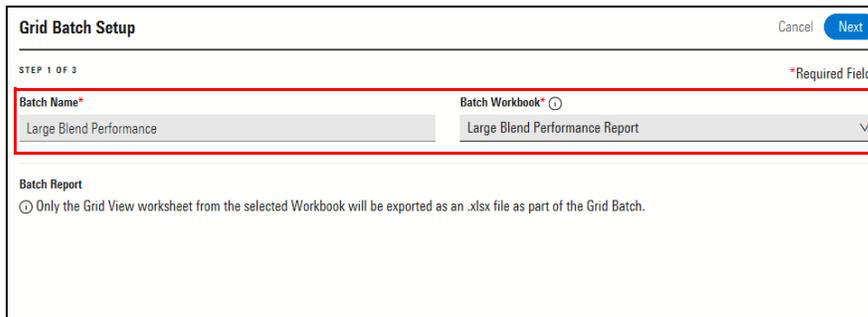
**Exercise 24: Creating a grid batch report**

1. On the header, click **Create**, then select **Grid Batch**. The Grid Batch Setup window opens.



Select this command to begin making a grid batch report

2. In the **Batch Name** field, type **Large Blend Performance**.  
 Note: The name for a batch report is limited to 28 characters.
3. From the **Batch Workbook** drop-down field, select the **Large Blend Performance Report** workbook you saved in the previous exercise.



Note the values for these two fields

4. Click **Next**.

5. From the **Batch Start Date**, enter the date of the **third business day in the next month**. Leave the Batch End Date as MM/DD/YYYY. This way, the report will re-run each month with no end date.
6. From the **Batch Run Time** drop-down field, select **6:00**. To the right of the Batch Run Time field, the Time Zone (from your Global Settings) is displayed. Together, these two fields indicate the report will run when it is 6 a.m. in the America/Chicago time zone.
7. In the Batch Frequency area, select the option for **Monthly**.

**Grid Batch Setup** Cancel Back Next

Grid Batch setup allows you to schedule the Grid View of your Workbook to calculate and export an Excel file on a recurring basis.

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STEP 2 OF 3 \*Required Fields

<b>Batch Start Date*</b>	<b>Batch End Date</b>	<b>Batch Run Time*</b>	<b>Time Zone</b>
10/03/2018	MM/DD/YYYY	6:00	America/Chicago (Based on Global Settings)

**Batch Frequency\***

Daily

Monthly

Quarterly

You can change your time zone in your Global Settings.

Be sure to select the correct options for your batch report from each field on this step

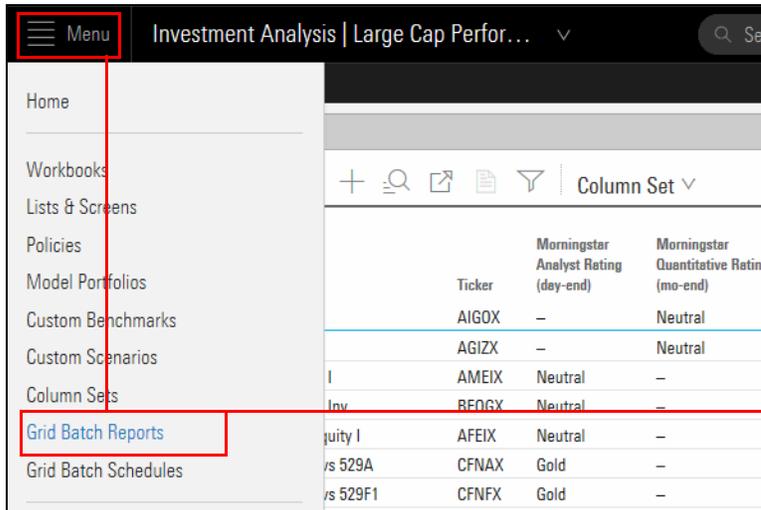
8. Click **Next**.
9. Click **Save**. The first report will generate at the time you selected from the Batch Run Time field on the Batch Start Date you entered.

Note: If you ever need to edit or delete a grid batch schedule, you can do so by using the **Menu** to access the **Grid Batch Schedules** page. Hover the cursor over the schedule you need to edit or delete, then click the **Actions** icon to select the appropriate command.

When a batch report is available, you can open (or save) it from the Grid Batch Reports page. To open a grid batch report, do the following:

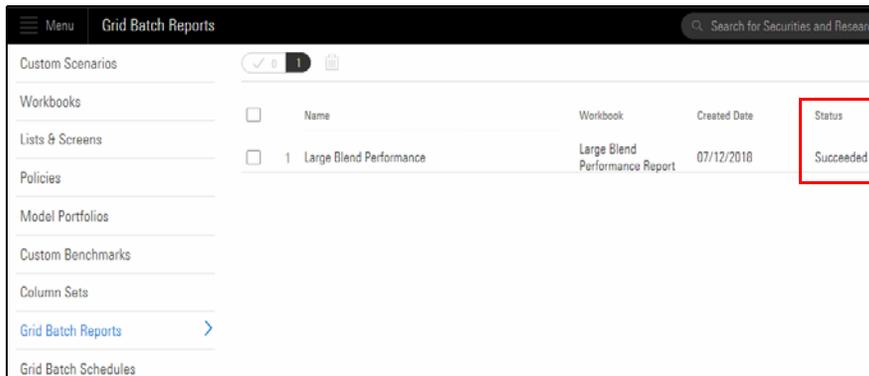
**Exercise 25: Opening a grid batch report**

1. **Hover the cursor** over the **Menu** icon, then select **Grid Batch Reports**.



Select this option to see the grid batch reports you have created

2. Check the Status column, to ensure the batch report completed successfully. If a report's Status is Failed, click the **Information** icon to find out what happened.
3. Click the **name** of a grid batch report to either open it in Microsoft® Excel® or save it.



Ensure the word "Succeeded" appears before opening or saving the Microsoft Excel file