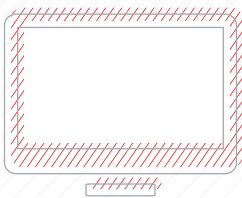
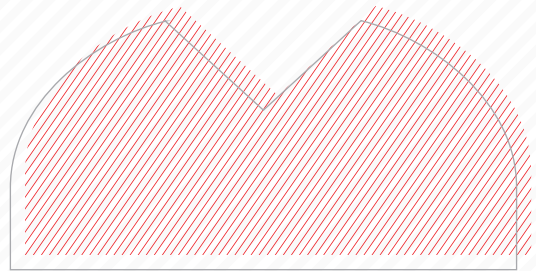
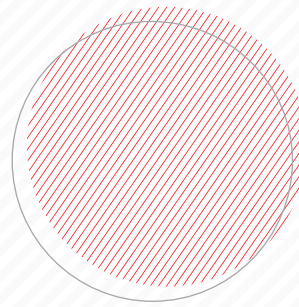
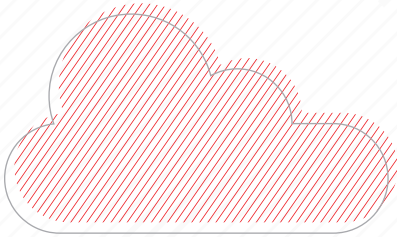
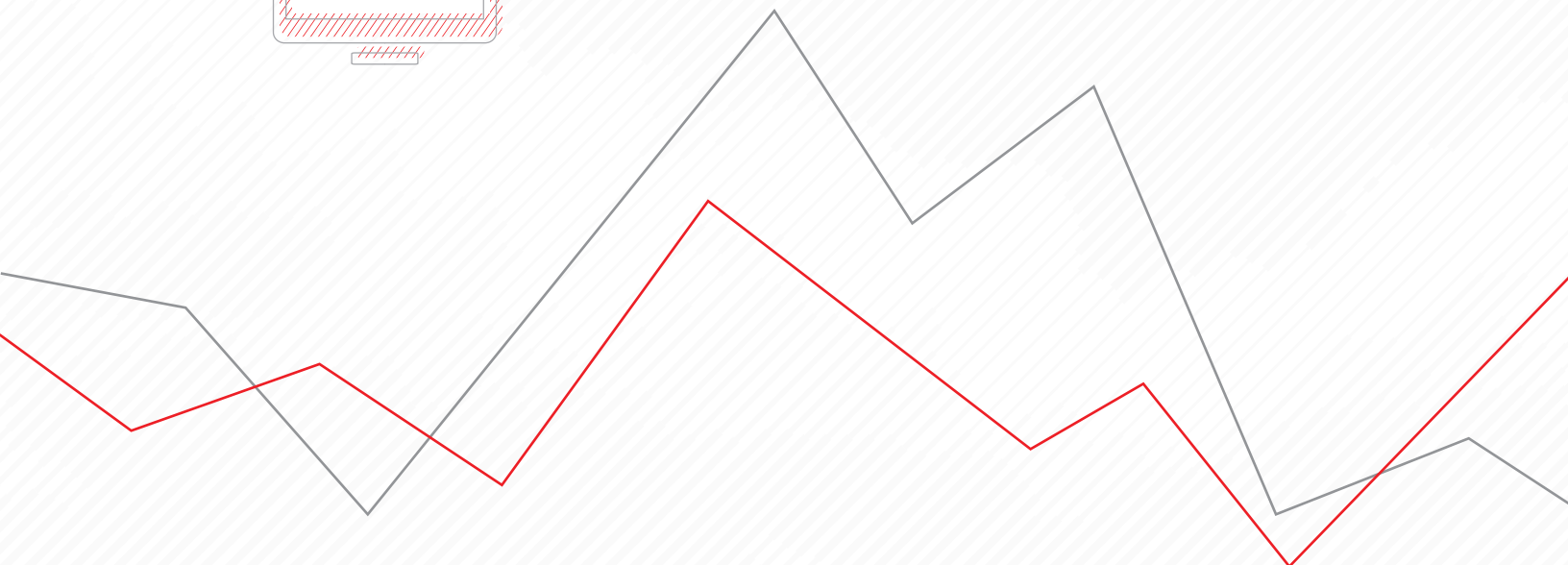


# Analyzing Risk in Concentrated Equity Fund Portfolios

Workshop Guide



MORNINGSTAR Direct



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## Contents

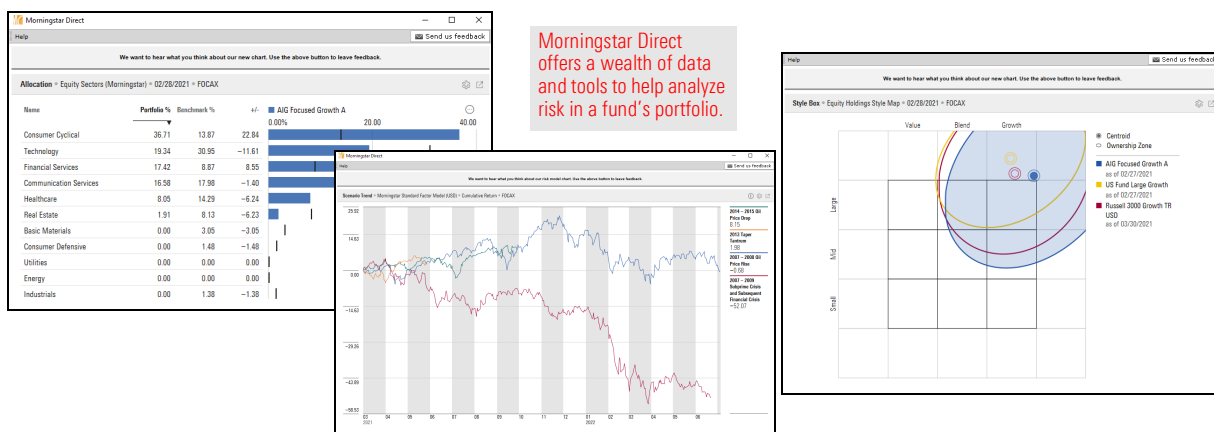
Overview .....	4
Exercise 1: Set the User Preferences to assist in search results .....	5
Exercise 2: Find US equity funds with concentrated portfolios .....	7
Exercise 3: Examine the fund's top underlying holdings .....	10
Exercise 4: Examine how the fund's style diverges from its category and benchmark ..	12
Exercise 5: View the fund's allocation to different geographic regions .....	16
Exercise 6: Investigate the fund's reliance on regions and countries for revenue .....	19
Exercise 7: Review the stock sector allocation for the fund .....	22
Exercise 8: View Standard Factor Risk Model data for the fund .....	25
Exercise 9: View the fund's Risk Factor Exposure chart .....	29
Exercise 10: Consider how the fund would perform in various market scenarios .....	31

# Analyzing Risk in Concentrated Equity Fund Portfolios

Equity funds with fewer than 50 stock holdings and more than 45% of assets allocated to just the top 10 stocks represent a unique and seemingly obvious type of risk. Such concentration can easily derail a fund's performance if even one of those top 10 holdings should meaningfully underperform, or a manager may miss out due to lack of exposure to a well-performing sector. But what other specific risks are investors subject to with these funds? To this end, what can Morningstar Direct<sup>SM</sup> tell clients about the potential outsized risk for these funds? The following exercises are included to help answer these questions:

## Overview

- ▶ Exercise 1: Set the User Preferences to assist in search results (page 5)
- ▶ Exercise 2: Find US equity funds with concentrated portfolios (page 7)
- ▶ Exercise 3: Examine the fund's top underlying holdings (page 10)
- ▶ Exercise 4: Examine how the fund's style diverges from its category and benchmark (page 12)
- ▶ Exercise 5: View the fund's allocation to different geographic regions (page 16)
- ▶ Exercise 6: Investigate the fund's reliance on regions and countries for revenue (page 19)
- ▶ Exercise 7: Review the stock sector allocation for the fund (page 22)
- ▶ Exercise 8: View Standard Factor Risk Model data for the fund (page 25)
- ▶ Exercise 9: View the fund's Risk Factor Exposure chart (page 29)
- ▶ Exercise 10: Consider how the fund would perform in various market scenarios (page 31)

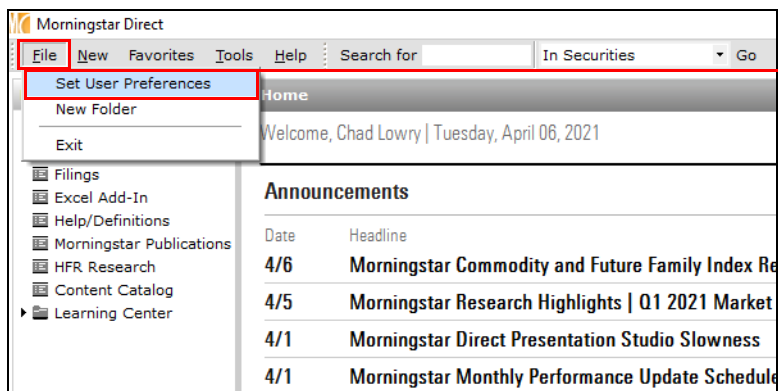


Before funds with concentrated stock portfolios can be analyzed, they need to be found, and before creating the advanced search to find these funds it is important to consider how user preferences can be used to further filter the set of results. Specifically, a user-defined primary share class will be set in this exercise and later it will be invoked when the advanced search is created. This way, the minimum number of results will be seen in the grid because only one representative share class will be found by the search.

### Exercise 1: Set the User Preferences to assist in search results

To set the cheapest share class of a fund as the default primary value, do the following:

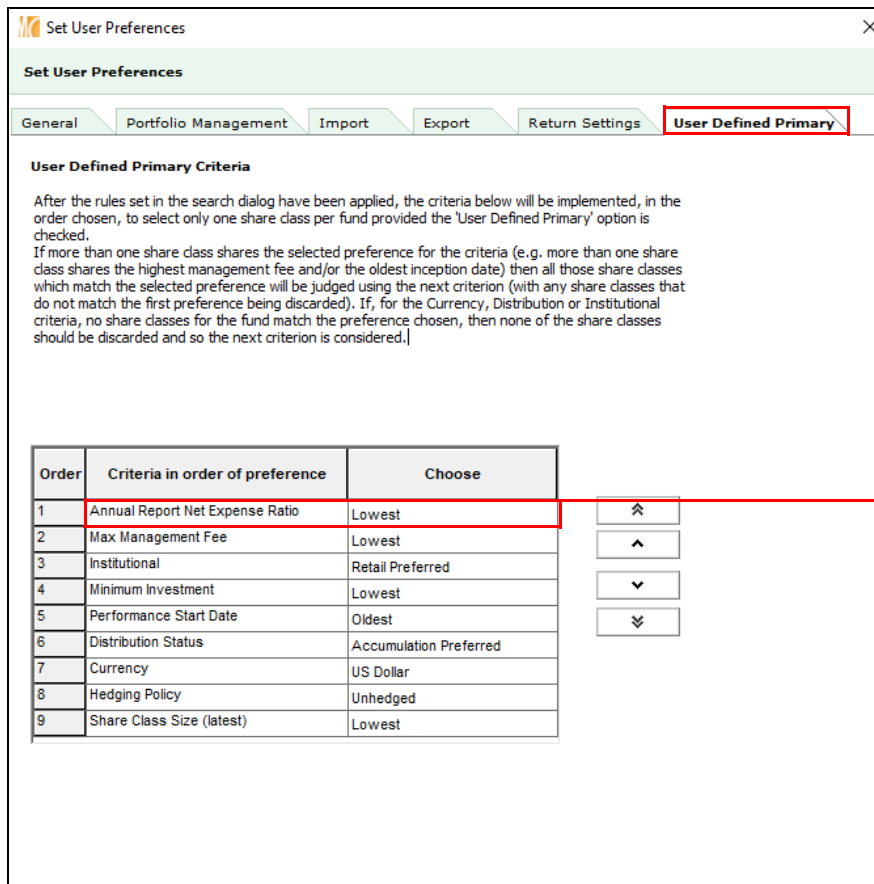
1. From the menu bar, select **File > Set User Preferences**. The Set User Preferences window opens.



Use the File menu to select this option.

2. Select the **User Defined Primary** tab.
3. Select the option for **Annual Report Net Expense Ratio**, then use the **Up arrow** to move it to the top of the list.
4. From the **Choose** field, select **Lowest**.

Note: If desired, change the order of the other options.



**Set User Preferences**

General Portfolio Management Import Export Return Settings **User Defined Primary**

**User Defined Primary Criteria**

After the rules set in the search dialog have been applied, the criteria below will be implemented, in the order chosen, to select only one share class per fund provided the 'User Defined Primary' option is checked.

If more than one share class shares the selected preference for the criteria (e.g. more than one share class shares the highest management fee and/or the oldest inception date) then all those share classes which match the selected preference will be judged using the next criterion (with any share classes that do not match the first preference being discarded). If, for the Currency, Distribution or Institutional criteria, no share classes for the fund match the preference chosen, then none of the share classes should be discarded and so the next criterion is considered.]

Order	Criteria in order of preference	Choose
1	Annual Report Net Expense Ratio	Lowest
2	Max Management Fee	Lowest
3	Institutional	Retail Preferred
4	Minimum Investment	Lowest
5	Performance Start Date	Oldest
6	Distribution Status	Accumulation Preferred
7	Currency	US Dollar
8	Hedging Policy	Unhedged
9	Share Class Size (latest)	Lowest

Be sure to move this option to the top of the list, and select the correct value in the Choose column,.

5. Click **OK** to close the Set User Preferences window.

What does it mean for a fund to have a “concentrated” portfolio? A couple of parameters could be considered – both the number of stock holdings, and the percent of assets contained in just the top 10 holdings. This exercise shows clients how to find open-end funds and ETFs meeting both of these criteria, and more.

## Exercise 2: Find US equity funds with concentrated portfolios

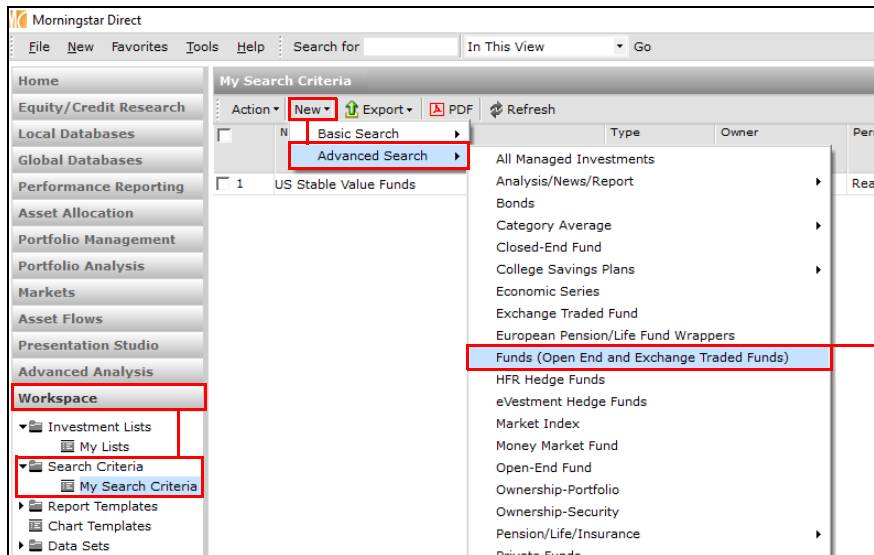
Why include other criteria besides just the number of stocks held and the concentration of assets among the top 10 holdings when looking for concentrated funds? Including other criteria helps narrow the set of funds returned by the search and will fit more neatly with the types of analysis being done in the rest of this guide.

The following table describes each element being included in the search and why it is valuable:

This element...	Is being included in the search because...
Domicile	Only funds domiciled in the United States should be returned in the result set seen in the grid.
# of Stock Holdings (Long)	The funds returned by the search should have no more than 50 stocks.
% Asset in Top 10 Holdings	The funds returned by the search should have at least 45% of their assets among the top 10 holdings.
Inception Date	The Risk Model Scenario Trend chart allows clients to project how a fund may perform if certain past market events were to recur; finding funds with experience during those original market events provides a meaningful comparison for that predicted outcome.
Global Broad Category Group	For the sake of analyzing the risk among a concentrated collection of stocks, only equity funds should be returned, not fixed income or allocation funds.
US Category Group	This ensures sector-specific funds are not returned, as part of the later analysis looks to see what a fund’s over exposure may be among stock sectors and selecting a sector-specific fund for analysis would skew this consideration.
Asset Alloc Equity (Net)	To ensure Risk Model data is seen for the risk model to be used, a fund must have an allocation to stocks of at least 80%.
User Defined Primary Class Only	Only one instance of each fund needs to be seen.

To use an advanced search to find funds with concentrated stock portfolios, do the following:

1. Select the **Workspace** module, and go to the **My Search Criteria** page.
2. From the toolbar above the grid, select **New > Advanced Search > Funds (Open End and Exchange Traded Funds)**. The Search Criteria window opens.



Be sure to select this combined data universe when creating the advanced search.



3. Create a search using the criteria and values in the following table:

Rel	Field Name	Operator	Value
--	Domicile	=	United States
And	# of Stock Holdings (Long)	<=	50
And	% Asset in Top 10 Holdings	>	45
And	Inception Date	<=	10/01/2007
And	Global Broad Category Group	=	Equity
And	Asset Alloc Equity % (Net)	>=	80
And	US Category Group	not=	Sector Equity

4. At the bottom of the Search Criteria window, check the **User Defined Primary Class Only** box.
5. Click **Save As**, then name the search **Concentrated Funds**.

Selecting the Alphabetically option makes it easy to find all data points to be included. Be careful to ensure the Operator and Value fields match exactly as those seen here. Remember to check the box at the bottom of the window before clicking Save As at the top of the window.

Morningstar Direct -- Funds (Open End and Exchange Traded Funds)

Open Insert Delete Clear All Export PDF Save As Feedback

	Rel	Field Name	Operator	Value
<input type="checkbox"/> 1	---	Domicile	=	United States
<input type="checkbox"/> 2	And	# of Stock Holdings (Long)	<=	50
<input type="checkbox"/> 3	And	% Asset in Top 10 Holdings	>	45
<input type="checkbox"/> 4	And	Inception Date	<=	10/1/2007
<input type="checkbox"/> 5	And	Global Broad Category Group	=	Equity
<input type="checkbox"/> 6	And	Asset Alloc Equity % (Net)	>=	80
<input type="checkbox"/> 7	And	US Category Group	Not=	Sector Equity
<input type="checkbox"/> 8				
<input type="checkbox"/> 9				
<input type="checkbox"/> 10				

View Field Name: ☐ By Category ☒ Alphabetically

Include: ☒ Only Surviving Investments ☒ User Defined Primary Class Only

Items Searched: 0 Items Found: - Run Search

Help OK Cancel

6. Click **OK** to close the Search Criteria window.

To begin the analysis of risk, examine the concentration among the top 10 holdings for a fund. The following questions will be considered:

- ▶ What percentage of assets is concentrated here?
- ▶ How much is allocated just to the top holding?
- ▶ How many different sectors are represented?
- ▶ Is the manager preserving a significant amount of cash (or similar instruments) for new opportunities, or is the fund fully invested?

### Exercise 3: Examine the fund's top underlying holdings

To review a fund's top 10 holdings, do the following:

1. **Right-click** on a fund in the grid, then select **View Holdings > Detailed Holdings Analysis**. The Detailed Holdings Analysis window opens.

This option can also be selected from the Action menu on the toolbar above the grid.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US01878T8484
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US00761L1026
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033
6	AIG Focused Growth A				FOCAX	US86704E8003
7	Alger Focus Equity I				ALGRX	US0155703020
8	Amana Growth Investor				AMAGX	US0228652089
9	Amana Income Investor				AMANX	US0228651099
10	American Century Focused Dynamic Gr I				ACFSX	US02507H6018
11	Ariel Focus Investor				ARFFX	US04035F1075
12	Ave Maria Growth				AVEGX	US8085303076
13	Baron Growth Retail				BGRFX	US0682782091
14	Baron Partners Retail				BPTRX	US06828M1080
15	Barrett Opportunity				SAOPX	US06847P1084
16	BlackRock Advantage SMID Cap Inv C				MCSPX	US09252L3078
17	BlackRock Exchange BlackRock					
18	BlackRock International Dividend Inv C					
19	BlackRock Large Cap Focus Growth Inv C					
20	BlackRock Latin America Inv C					
21	BlackRock Long-Horizon Equity Inv C					
22	Blue Chip Investor				BCIFX	US09532K1034
23	BNY Mellon Appreciation Investor				DGAGX	US05589Q1004

2. From the toolbar in the Detailed Holdings Analysis window, click **Export > Export to Excel**.

Moving this content to a spreadsheet will make for easy calculations.

	Name	Ticker	ISIN	CUSIP	Portf Weig			
1	Tesla Inc	TSLA	US88160R1014	88160R101	14.60	104,745,960.00		
2	The Walt Disney Co	DIS	US2546871060	254687106	6.24	44,775,262.00		
3	Amazon.com Inc	AMZN	US0231351067	023135106	6.23	44,678,397.00		
4	Microsoft Corp	MSFT	US5949181045	594918104	6.12	43,907,708.00		
5	ServiceNow Inc	NOW	US81762P1021	81762P102	5.69	40,844,546.00		
6	Facebook Inc A	FB	US30303M102	30303M102	5.67	40,670,700.00		
7	PayPal Holdings Inc	PYPL	US70450Y1038	70450Y103	5.55	39,828,951.00		
8	Danaher Corp	DHR	US2358511028	235851102	5.31	38,139,785.00		
9	Usd				5.27	37,847,943.00	37.4	
10	Visa Inc Class A	V	US92826C839	92826C839	5.16	37,035,396.00		

3. **Close** the **Detailed Holdings window**, then use the Microsoft® Excel® spreadsheet to answer the following questions:

Question	Answer
What is the top holding, and what % of assets are allocated to it?	
Rounding up to the nearest whole number, what % of assets are found among the top 10 holdings?	
Which stock sectors are found among the top 10 holdings?	
Is cash (or similar fixed-income holdings) among the top 10 holdings?	

Funds with concentrated portfolios run the risk of deviating meaningfully from both their Morningstar category and the prospectus benchmark. This exercise uses a Web-based chart to view whether the manager largely remains in line with these benchmarks despite relatively few holdings and a concentration among the top stocks.

## Exercise 4: Examine how the fund's style diverges from its category and benchmark

To compare the selected fund's style exposure across the Equity Style Box versus its Morningstar category and prospectus benchmark, do the following:

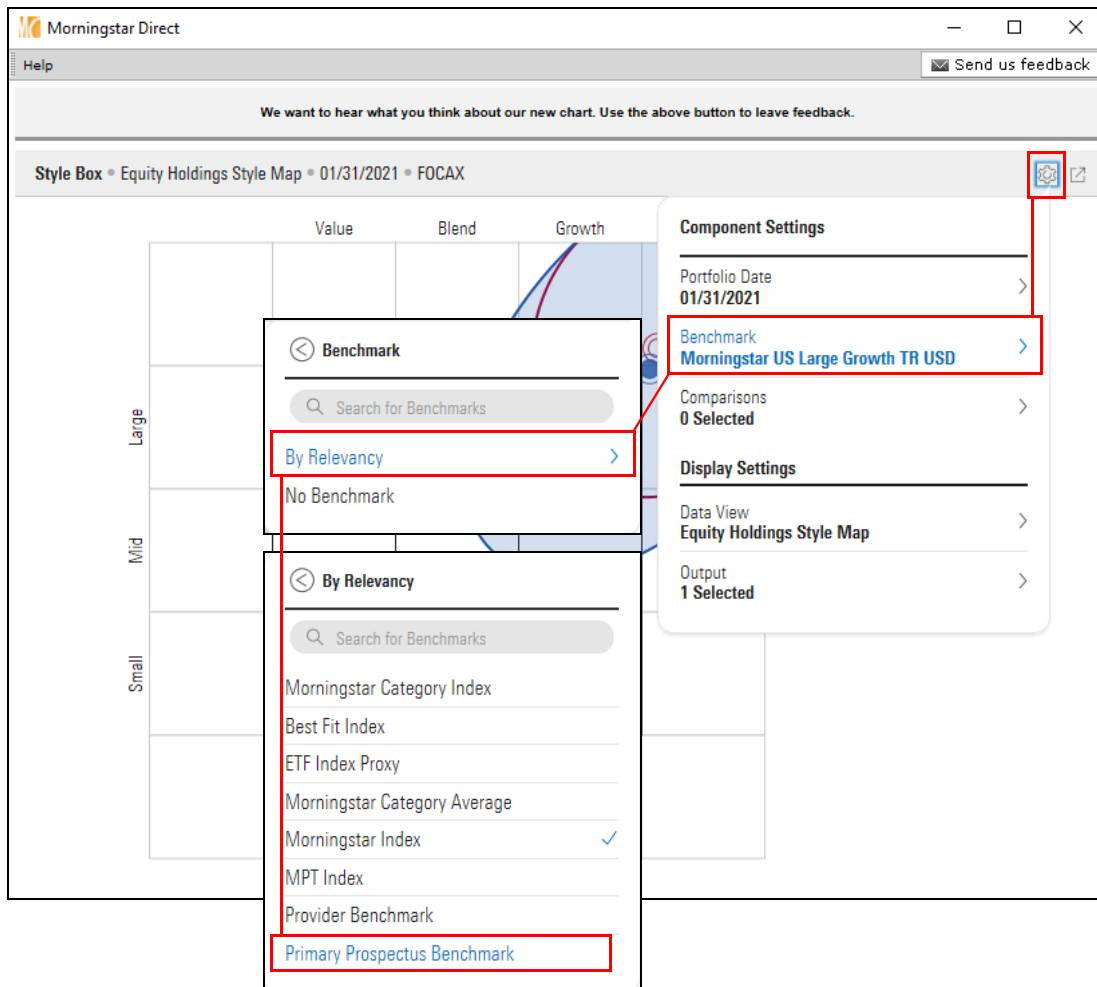
1. From the grid, take note of the **Morningstar Category** to which the fund is assigned.
2. **Right-click** on the selected fund, then choose **Interactive Charts > Web-based Charts > Style Box**. The Style Box chart opens in a new window.

This option is also available from the Action menu on the toolbar above the grid.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN		Global Broad Category Group	Global Category
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US01878T8484		Equity	US Equi
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177		Equity	US Equi
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011		Equity	Global B
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US00761L1026		Equity	US Equi
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033		Equity	US Equi
6	AIG Focused Growth A	Open-End F	US Dollar	No	FOCAX	US86704E8003		Equity	US Equi
7	Alger Focus Equity I			No	ALGRX	US0195703020		Equity	US Equi
8	Amana Growth Investor			No	AMAGX	US0228652089		Equity	US Equi
9	Amana Income Investor			No	AMANX	US0228651099		Equity	US Equi
10	American Century Focused Dynamic Gr I			No	ACFSX	US02307H6018		Equity	US Equi
11	Ariel Focus Investor			No	ARFFX	US04035F1075		Equity	US Equi
12	Ave Maria Growth			No	AVEGX	US8085303076		Equity	US Equi
13	Baron Growth Retail					582782091		Equity	US Equi
14	Baron Partners Retail								
15	Barrett Opportunity								
16	BlackRock Advantage SMID Cap Inv C			No	MCSPX	US0000000000		Allocation	\$ Equi
17	BlackRock Exchange BlackRock			No	STSEX	US0000000000		Correlation Matrix	\$ Equi
18	BlackRock International Dividend Inv C			No	BRECX	US0000000000		Global Revenue Map	\$ Equi
19	BlackRock Large Cap Focus Growth Inv C			No	MCFOX	US0000000000		Growth	Global B
20	BlackRock Latin America Inv C			No	MCLTX	US0000000000		Historical Allocation	Equi
21	BlackRock Long-Horizon Equity Inv C			No	MCEGX	US0000000000		Historical Drawdown	Equi
22	Blue Chip Investor			No	BCIFX	US0000000000		Historical Sustainability	Global B
23	BNY Mellon Appreciation Investor			No	DGAGX	US0000000000		Holdings Plot	\$ Equi
24	BNY Mellon Sust US Equity C			No	DTCCX	US0000000000		Portfolio Characteristics	\$ Equi
25	BNY Mellon Tax Managed Growth C			No	DPTAX	US0000000000		Return Bar	\$ Equi
26	BNY Mellon Worldwide Growth C			No	PGRGX	US0000000000		Revenue Exposure	\$ Equi
27	Boyar Value			No	BOYAX	US0000000000		Risk Reward	Global B
28	Bridges Investment			No	BRGIX	US0000000000		Rolling Return	\$ Equi
29	Brown Capital Mgmt Small Co Inv			No	BCSIX	US0000000000		Style Box	\$ Equi
30	Catalyst Small Cap Insider Buying C			No	CTVCX	US62827L2034			US Equi
31	CGM Focus			No	CGMFX	US1253255061			US Equi
32	CGM Realty			No	CGMBX	US1353254072			US Equi

3. Click the **Component Settings** icon, then select **Benchmark** > **By Relevancy** > **Primary Prospectus Benchmark**.

Follow the menu path shown here to select the correct benchmark.



4. Click **Comparisons**, then type the name of the fund's **Morningstar Category**.
5. Select the **Morningstar Category**, then click **Done**.

Be sure the item selected is a Category Average.

The screenshot shows the Morningstar Direct Equity Holdings Style Map for portfolio FOCAX as of 01/31/2021. The main chart displays a 'Value Blend Growth' style map with a red dot representing the portfolio's position. A red line points from the instruction 'Be sure the item selected is a Category Average.' to the 'US Fund Large Growth' entry in the comparison list. The 'Comparisons' panel is open, showing a search bar with 'US Fund Large Growth' entered. The 'Done' button is highlighted in the top right of the panel. The 'Component Settings' panel on the right shows the benchmark as 'Russell 3000 Growth TR USD' and '0 Selected' comparisons.

Name	Identifier	Exchange	Type
US Fund Large Growth	—	—	Category Average
US Active Fund Foreign Large Growth	—	—	Category Average
US Active Fund Large Growth	—	—	Category Average
US Active Fund Static Large Growth	—	—	Category Average
US Custom Fund Foreign Large Growth	—	—	Category Average
US Custom Fund Large Growth	—	—	Category Average
US Fund Foreign Large Growth	—	—	Category Average
US Fund Foreign Large Growth	—	—	Category Average
US Fund Static Large Growth	—	—	Category Average
US Fund Static Large Growth	—	—	Category Average

6. Click away from the Component Settings menu to close it, then use the chart to answer the following questions:

Question	Answer
Does the fund's style differ significantly from its prospectus benchmark, or do they mostly overlap?	
Looking at the centroid for the fund compared to its prospectus benchmark, how do the two differ? That is, does one tilt more toward large cap or small cap holdings? Is one more strongly value or growth oriented than the other?	
Does the fund's style differ significantly from its category average, or do they mostly overlap?	
Looking at the centroid for the fund compared to its category average, how do the two differ? That is, does one tilt more toward large cap or small cap holdings? Is one more strongly value or growth oriented than the other?	
Use the Component Settings icon to change the Data View setting to Equity Style Box. What is the biggest difference here between the fund's allocation compared to the Morningstar Category Average?	

7. **Close the Style Box chart.**

In the same way a concentrated fund may become imbalanced from a style perspective, it can also become overly dependent on certain geographic regions (based on the stocks it owns). The next two exercises explore this question, first by examining the regions in which a fund's holdings are headquartered, and then by looking at which regions the fund's holdings depend on for their revenues.

### Exercise 5: View the fund's allocation to different geographic regions

To see where a fund's stock holdings are headquartered, do the following:

1. **Right-click** on the selected fund, then select **Interactive Charts > Web-based Charts > Allocation**. The Allocation chart opens in a new window.

Be sure to select the Web-based Charts menu to choose the Allocation chart.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN	Global Broad Category	Group	Global Category
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US01878T8484	Equity		US Equi
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177	Equity		US Equi
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011	Equity		Global s
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US00761L1026	Equity		US Equi
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033	Equity		US Equi
6	AIG Focused Growth A	Open-End F	US Dollar	No	FOCAX	US86704E8003	Equity		US Equi
7	Alger Focus Equity I	View Accounts With Holding		No	ALGRX	US0155703020	Equity		US Equi
8	Amana Growth Investor	New Transaction		No	AMAGX	US0228652089	Equity		US Equi
9	Amana Income Investor	View Transactions		No	AMANX	US0228651099	Equity		US Equi
10	American Century Focused Dynamic Gr I	View Prices		No	ACFSX	US02507H6018	Equity		US Equi
11	Ariel Focus Investor	Edit Security		No	ARFFX	US04035F1075	Equity		US Equi
12	Ave Maria Growth	Reports		No	AVEGX	US8085303076	Equity		US Equi
13	Baron Growth Retail	Interactive Charts >				2782091	Equity		US Equi
14	Baron Partners Retail	Risk Model >							
15	Barrett Opportunity	Presentation Studio Charts >							
16	BlackRock Advantage SMID Cap Inv C	Premium/Discount		No	MCSPX	US092	Correlation Matrix		iqui
17	BlackRock Exchange BlackRock	View Holdings		No	STSEX	US091	Global Revenue Map		iqui
18	BlackRock International Dividend Inv C	View Owners		No	BRECX	US091	Growth		al s
19	BlackRock Large Cap Focus Growth Inv C	View Fundcode Info		No	MCFOX	US092	Historical Allocation		iqui
20	BlackRock Latin America Inv C			No	MCLTX	US092	Historical Drawdown		Ar



2. Use the **Component Settings** icon to select **Grouping > Equity Regional Exposure**.

Use the Grouping setting to select this option.

The screenshot shows the Morningstar Direct interface for the fund 'AIG Focused Growth A'. The main table displays the asset allocation:

Name	Portfolio %	Benchmark %	+/-
Equity	94.73	100.00	-5.27
Cash	5.27		
Bond	0.00		
Other	0.00		

The **Component Settings** panel on the right shows the following settings:

- Portfolio Date: 01/31/2021
- Grouping: **Asset Allocation** (selected)
- Benchmark: Morningstar US Large Growth TR USD
- Comparisons: 0 Selected
- Sales Position: Long Rescaled
- Display Settings:
  - Data View: Bar Chart
  - Number of Chart Rows: 12

The **Grouping** dropdown menu is open, showing the following options:

- Equity Sector (IND)
- Equity Super Regions
- Equity Regional Exposure** (selected)
- Equity Country Exposure
- Equity Country Exposure (MSCI)
- Equity Style Capitalization
- Equity Style Valuation
- Equity Style

3. As in the previous exercise, change the **Benchmark** setting to **By Relevancy > Primary Prospectus Benchmark**.

4. Click away from the Component Settings menu to close it, then use the chart to answer the following questions:

Question	Answer
Which region(s), if any, dominate this fund's allocation?	
Which regions see the fund differing the most from the benchmark?	
When the <b>Component Settings</b> icon is used to switch the <b>Grouping</b> setting to <b>Equity Country Exposure</b> , which countries have the largest allocation?	
Which countries see the fund differing the most from the benchmark?	

The Allocation chart shows clients where a fund's holdings are headquartered. Two other Web-based charts show a different and perhaps more important piece of information: which regions and countries the fund's stock holdings depend on for their revenue.

### Exercise 6: Investigate the fund's reliance on regions and countries for revenue

To see which global regions and countries a fund's stock holdings draw their revenues from, do the following:

1. The Allocation chart window should still be open, with the settings selected in the previous exercise. Select the **main Morningstar Direct window**, then **right-click** the selected fund and choose **Interactive Charts > Web-based Charts > Revenue Exposure**. The Regional Exposure chart opens in a new window.

Be sure to select the Revenue Exposure chart from this menu.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN	Global Broad Category Group	Global Category
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US01878T8484	Equity	US Equi
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177	Equity	US Equi
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011	Equity	Global S
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US00761L1026	Equity	US Equi
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033	Equity	US Equi
6	AIG Focused Growth A	Open-End F	US Dollar	No	FOCAX	US86704E8003	Equity	US Equi
7	Alger Focus Equity I			No	ALGRX	US0155703020	Equity	US Equi
8	Amana Growth Investor			No	AMAGX	US0228652089	Equity	US Equi
9	Amana Income Investor			No	AMANX	US0228651099	Equity	US Equi
10	American Century Focused Dynamic Gr I			No	ACFSX	US02507H6018	Equity	US Equi
11	Ariel Focus Investor			No	ARFFX	US04035F1075	Equity	US Equi
12	Ave Maria Growth			No	AVEGX	US8085303076	Equity	US Equi
13	Baron Growth Retail			No		12782091	Equity	US Equi
14	Baron Partners Retail			No				
15	Barrett Opportunity			No				
16	BlackRock Advantage SMID Cap Inv C			No	MCSXP	US09		
17	BlackRock Exchange BlackRock			No	STSEX	US09		
18	BlackRock International Dividend Inv C			No	BREX	US09		
19	BlackRock Large Cap Focus Growth Inv C			No	MCFOX	US09		
20	BlackRock Latin America Inv C			No	MCLTX	US09		
21	BlackRock Long-Horizon Equity Inv C			No	MCEGX	US09		
22	Blue Chip Investor			No	BCIFX	US09		
23	BNY Mellon Appreciation Investor			No	DGAGX	US05		
24	BNY Mellon Sust US Equity C			No	DTCCX	US09		
25	BNY Mellon Tax Managed Growth C			No	DPTAX	US05		
26	BNY Mellon Worldwide Growth C			No	PGRGX	US05		
27	Boyar Value			No	BOYAX	US10		
28	Bridges Investment			No	BRGIX	US10		
29	Brown Capital Mgmt Small Co Inv			No	BCSIX	US11		

2. As before, use the **Component Settings** icon to change the **Benchmark** setting to **By Relevancy > Primary Prospectus Benchmark**.

3. Click away from the Component Settings menu to close it, then use the cart to answer the following questions:

Question	Answer
Which region(s), if any, dominate this fund's allocation?	
Which regions see the fund differing the most from the benchmark?	
When the <b>Component Settings</b> icon is used to switch the <b>Grouping</b> setting to <b>Equity Country Exposure</b> , which countries have the largest allocation?	
Which countries see the fund differing the most from the benchmark?	

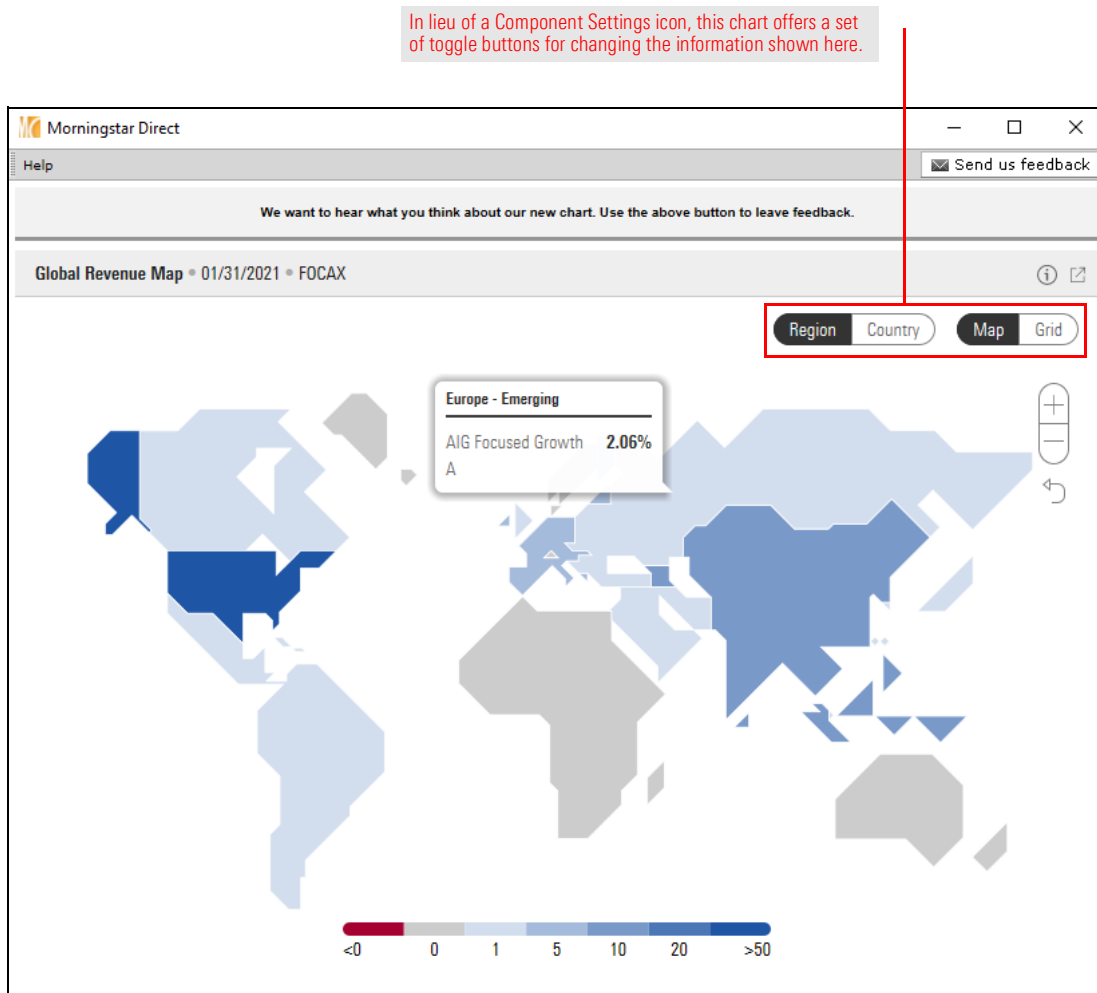
4. For a different perspective on this same information, return to the **main Morningstar Direct window**, right-click the same fund again and select **Interactive Charts > Web-based Charts > Global Revenue Map**. The Global Revenue Map chart opens in a new window.

The Global Revenue Map is a unique type of chart.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN	Global Broad Category Group	Global Category
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US01878T8484	Equity	US Equi
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177	Equity	US Equi
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011	Equity	Global
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US00761L1026	Equity	US Equi
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033	Equity	US Equi
6	AIG Focused Growth A	Open-End F	US Dollar	No	FOCAX	US86704E8003	Equity	US Equi
7	Alger Focus Equity I			No	ALGRX	US0155703020	Equity	US Equi
8	Amana Growth Investor			No	AMAGX	US0228652089	Equity	US Equi
9	Amana Income Investor			No	AMANX	US0228651099	Equity	US Equi
10	American Century Focused Dynamic Gr I			No	ACFSX	US02507H6018	Equity	US Equi
11	Ariel Focus Investor			No	ARFFX	US04035F1075	Equity	US Equi
12	Ave Maria Growth			No	AVEGX	US0085303076	Equity	US Equi
13	Baron Growth Retail			No		US0682782091	Equity	US Equi
14	Baron Partners Retail			No		US0000000000	Equity	US Equi
15	Barrett Opportunity			No			Equity	US Equi
16	BlackRock Advantage SMID Cap Inv C			No	MCSPX	U		US Equi
17	BlackRock Exchange BlackRock			No	STSEX	U		US Equi
18	BlackRock International Dividend Inv C			No	BRECX	U		Global
19	BlackRock Large Cap Focus Growth Inv C			No	MCFOX	U		US Equi
20	BlackRock Latin America Inv C			No	MCLTX	U		Latin Ar

5. **Hover the cursor** over a **region** to see a pop-up with information about that area.
6. Note that this chart does not have a Component Settings icon. Instead, use the **toggle buttons** in the top-right corner of the chart to switch from Region to **Country**, and from a Map to a **Grid**.

Note: This chart is also available as a component in Presentation Studio.



7. Leave the Allocation chart window open, but **close** the **Revenue Exposure** and **Global Revenue Map** chart windows.

Having outsized weightings to the top 10 holdings and relatively few stock holdings is an easy way for a fund to become lopsided towards just one or two stock sectors, as well as have no exposure at all to one or more sectors. Both of these approaches introduce a unique type of risk for investors.

### Exercise 7: Review the stock sector allocation for the fund

To see a fund's allocation to various stock sectors, do the following:

Note: This exercise uses the Morningstar Stock Sectors, but if your account is enabled to see the GICS sectors and you would prefer to use them, feel free to do so.

1. Select the **Allocation** chart.
2. From the **Component Settings** icon, change the **Grouping** to **Equity Sectors (Morningstar)**.

Select this option for the chart; note that the GICS option is directly below it.

The screenshot shows the Morningstar Direct interface for the fund FOCAX. The main chart displays the asset allocation as of 01/31/2021. The chart is a bar chart showing the percentage of the portfolio allocated to different asset classes. The 'Component Settings' panel on the right is open, and the 'Grouping' dropdown menu is visible. The 'Grouping' dropdown menu is set to 'Asset Allocation'. The 'Equity Sectors (Morningstar)' option is highlighted in the dropdown menu. The 'Component Settings' panel shows the following settings:

- Portfolio Date: 01/31/2021
- Grouping: Asset Allocation
- Benchmark: Morningstar US Large Growth TR USD
- Comparisons: 0 Selected
- Sales Position: Long Rescaled
- Display Settings: Bar Chart
- Number of Chart Rows: 12

Name	Portfolio %	Benchmark %	+/-
Equity	94.73	100.00	-5.27
Cash	5.27	0.00	5.27
Bond	0.00	0.00	0.00
Other	0.00	0.00	0.00

3. Click away from the Component Settings menu to close it, then use the chart to answer the following questions:

Question	Answer
Which sector(s), if any, dominate this fund's allocation?	
To which sector is the fund most overweight compared to the Primary Prospectus benchmark?	
To which sector is the fund most underweight compared to the Primary Prospectus benchmark?	
To which sector(s), if any, does the fund have no exposure at all?	

4. To determine whether these stock sector allocations are unusual, return to the **main Morningstar Direct window**, then **right-click** on the selected fund again and select **Interactive Charts > Web-based charts > Historical Allocation**.

The Historical Allocation chart shows clients information for a data point over a time series, rather than just the current value.

	Name	Investment Type	Base Currency	Virtual Class	Ticker	ISIN	Global Broad Category Group	Global Category
1	AB Concentrated Growth Advisor	Open-End F	US Dollar	No	WPSGX	US0187878484	Equity	US Equi
2	Aberdeen US Sustainable Leaders C	Open-End F	US Dollar	No	GXXCX	US0030214177	Equity	US Equi
3	AdvisorOne CLS Global Diversified Eq N	Open-End F	US Dollar	No	CLSAX	US00764F2011	Equity	Global s
4	Aegis Value I	Open-End F	US Dollar	No	AVALX	US0076111026	Equity	US Equi
5	AIG Focused Alpha Large-Cap A	Open-End F	US Dollar	No	SFLAX	US86704E5033	Equity	US Equi
6	AIG Focused Growth A	Open-End F	US Dollar	No	FOCAX	US86704E8003	Equity	US Equi
7	Alger Focus Equity I	Open-End F	US Dollar	No	ALGRX	US0155708020	Equity	US Equi
8	Amana Growth Investor	Open-End F	US Dollar	No	AMAGX	US0228652089	Equity	US Equi
9	Amana Income Investor	Open-End F	US Dollar	No	AMANX	US0228651099	Equity	US Equi
10	American Century Focused Dynamic Gr I	Open-End F	US Dollar	No	ACFSX	US02507H6018	Equity	US Equi
11	Ariel Focus Investor	Open-End F	US Dollar	No	ARFFX	US04035F1075	Equity	US Equi
12	Ave Maria Growth	Open-End F	US Dollar	No	AVEGX	US8085308076	Equity	US Equi
13	Baron Growth Retail	Open-End F	US Dollar	No			Equity	US Equi
14	Baron Partners Retail	Open-End F	US Dollar	No			Equity	US Equi
15	Barrett Opportunity	Open-End F	US Dollar	No			Equity	US Equi
16	BlackRock Advantage SMID Cap Inv C	Open-End F	US Dollar	No	MCSPX	US0925	Equity	US Equi
17	BlackRock Exchange BlackRock	Open-End F	US Dollar	No	STSEX	US0919	Equity	US Equi
18	BlackRock International Dividend Inv C	Open-End F	US Dollar	No	BREX	US0919	Equity	US Equi
19	BlackRock Large Cap Focus Growth Inv C	Open-End F	US Dollar	No	MCFOX	US0925	Equity	US Equi
20	BlackRock Latin America Inv C	Open-End F	US Dollar	No	MCLTX	US0925	Equity	US Equi

5. Once again, use the **Component Settings** icon to change the **Grouping** setting to **Equity Sectors (Morningstar)**, then use the chart to answer the following questions:

Question	Answer
Compared to one year ago, did the sector most overweighted in the current portfolio have a smaller or larger allocation, and by how much?	
Compared to one year ago, did the sector most underweighted in the current portfolio have a smaller or larger allocation, and by how much?	

6. **Close** the **Historical Allocation chart**, but leave the Allocation chart open.



The Morningstar Standard Factor Risk Model shows a fund's exposure to 33 risk factors, including the following seven commonly known Style factors:

- ▶ Size
- ▶ Style
- ▶ Momentum
- ▶ Liquidity
- ▶ Quality
- ▶ Volatility, and
- ▶ Yield.

### Exercise 8: View Standard Factor Risk Model data for the fund

In the grid, this data is expressed as a percentage, reflecting a fund's placement within the risk model universe. For example, large-cap funds will have a Size value closer to 100, and small-cap funds will have a Size value closer to 1. Growth oriented-funds will have a Style value closer to 1 and value-oriented funds will have a Style value closer to 100. The Equity Factor graphic in the Morningstar Report is another way to visualize this same information and see changes to the manager's approach over time.

To view the values for a fund's exposure to the Style factors in the Standard Factor Risk Model, do the following:

1. From the **View** menu above the grid, select **Risk Model**.

The screenshot shows the Morningstar Direct application window. On the left is a navigation pane with categories like Home, Equity/Credit Research, Local Databases, Global Databases, Performance Reporting, Asset Allocation, Portfolio Management, Portfolio Analysis, Markets, Asset Flows, Presentation Studio, Advanced Analysis, and Workspace. The main area displays a table of search criteria. Above the table, there is a 'View' dropdown menu. A red box highlights the 'View' dropdown, and a red arrow points from a text box to the 'Risk Model' option in the dropdown list. The text box contains the instruction: 'Select this view to see data for the Standard Factor risk model.'

Action	Name	Comment	Unit
<input type="checkbox"/>	Sustainability: Carbon Involvement (Fund)		
<input type="checkbox"/>	Sustainability: Product Involvement (Fund)		
<input type="checkbox"/>	Intentional Attributes: Sustainable Investment		
<input type="checkbox"/>	Intentional Attributes: Employee Exclusion		
<input type="checkbox"/>	Proxy Data: Top Level (Fund)	End F	US
<input type="checkbox"/>	Proxy Data: Shareholder Resolutions (Fund)	End F	US
<input type="checkbox"/>	Proxy Data: Management Resolutions (Fund)	End F	US
<input type="checkbox"/>	Operations		
<input type="checkbox"/>	MIFID	End F	US
<input type="checkbox"/>	<b>Risk Model</b>		
<input type="checkbox"/>	Income Analysis	End F	US
<input type="checkbox"/>	Returns (Daily)	End F	US
<input type="checkbox"/>	Alger Focus Equity I	Open-End F	US
<input type="checkbox"/>	Amana Growth Investor	Open-End F	US
<input type="checkbox"/>	Amana Income Investor	Open-End F	US
<input type="checkbox"/>	American Century Focused Dynamic Gr I	Open-End F	US
<input type="checkbox"/>	Ariel Focus Investor	Open-End F	US
<input type="checkbox"/>	Ave Maria Growth	Open-End F	US
<input type="checkbox"/>	Baron Growth Retail	Open-End F	US
<input type="checkbox"/>	Baron Partners Retail	Open-End F	US
<input type="checkbox"/>	Barrett Opportunity	Open-End F	US

- From the toolbar, click **Sort**. A pop-up dialog box opens.

Click this icon to sort the grid by two different data points.

	Name	Factor Profile Date	Factor Profile Liquidity	Factor Profile Momentum	Factor Quality
1	AB Concentrated Growth Advisor	1/31/2021	85.05	63.96	67.63
2	Aberdeen US Sustainable Leaders C	1/31/2021	52.83	31.69	53.54
3	AdvisorOne CLS Global Diversified Eq N	10/31/2020	50.23	62.83	53.16
4	Aegis Value I	12/31/2020	97.90	36.92	14.67
5	AIG Focused Alpha Large-Cap A	1/31/2021	43.99	52.93	57.48
6	AIG Focused Growth A	1/31/2021	18.12	5.92	45.07
7	Alger Focus Equity I	12/31/2020	46.97	11.14	25.96
8	Amana Growth Investor	2/28/2021	76.01	17.53	38.51
9	Amana Income Investor	2/28/2021	86.00	45.89	75.49
10	American Century Focused Dynamic Gr I	12/31/2020	8.01	4.18	44.23
11	Ariel Focus Investor	12/31/2020	17.75	91.88	87.65
12	Ave Maria Growth	1/31/2021	70.30	62.39	67.40
13	Baron Growth Retail	12/31/2020	67.47	17.58	83.55
14	Baron Partners Retail	12/31/2020	3.10	1.00	54.86
15	Barrett Opportunity	12/31/2020	86.53	76.46	37.40
16	BlackRock Advantage SMID Cap Inv C	12/31/2020	56.85	43.20	38.49
17	BlackRock Exchange BlackRock	1/31/2021	91.16	74.88	21.06

- From the **Primary Rank** field, select **Morningstar Category**.
- From the **Secondary Rank** field, select **Name**.

Note: The option for Ascending can remain selected for both data points.

**Set Display Rank**

**Primary Rank**

Morningstar Category

☒ Ascending ☐ Descending

**Secondary Rank**

Name

☒ Ascending ☐ Descending

OK Cancel Help

Be sure to replicate the settings shown here.

- Click **OK** to close the pop-up dialog box.

6. Find the selected fund in the grid, and note the values for each Factor Profile column. Is the value closer to 1 or 100, or is it closer to a median value?

Take note of the values in these columns.

	Name	Factor Profile Date	Factor Profile - Liquidity	Factor Profile - Momentum	Factor Profile - Quality	Factor Profile - Size	Factor Profile - Style	Factor Profile - Volatility	Factor Profile - Yield	Mo
61	White Oak Select Growth	12/31/2020	68.64	34.44	14.57	90.61	32.31	84.58	56.86	US
62	AB Concentrated Growth Advisor	1/31/2021	85.05	63.96	67.63	62.04	28.77	80.55	80.97	US
63	Aberdeen US Sustainable Leaders C	1/31/2021	52.83	31.69	53.54	34.28	19.58	76.23	78.56	US
64	AIG Focused Growth A	1/31/2021	18.12	5.92	45.07	79.74	3.83	27.71	95.59	US
65	Alger Focus Equity I	12/31/2020	46.97	11.14	25.96	94.27	11.13	56.49	83.96	US
66	Amana Growth Investor	2/28/2021	76.01	17.53	38.51	76.67	21.41	83.85	38.93	US
67	American Century Focused Dynamic Gr I	12/31/2020	8.01	4.18	44.23	61.62	2.46	30.23	95.50	US
68	Ave Maria Growth	1/31/2021	70.30	62.39	67.40	37.40	25.11	77.34	84.18	US
69	BlackRock Large Cap Focus Growth Inv C	9/30/2020	36.83	6.45	22.62	92.49	4.01	75.51	93.17	US
70	Bridges Investment	12/31/2020	85.65	20.43	25.47	94.80	18.72	81.82	70.55	US
71	Chesapeake Growth	12/31/2020	35.79	31.82	18.77	82.82	20.38	59.37	76.01	US

7. To see these values from a relative rather an absolute perspective, **right-click** on the selected fund, then choose **Reports > Morningstar Report/Quicktake**. The report opens in a browser window.

Note: Alternatively, you can open the report by double-clicking the fund's row.

Select this report from the menu.

	Name	Factor Profile Date	Factor Profile - Liquidity	Factor Profile - Momentum	Factor Profile - Quality	Factor Profile - Size	Factor Profile - Style	Factor Profile - Volatility	Factor Profile - Yield	Mo
61	White Oak Select Growth	12/31/2020	68.64	34.44	14.57	90.61	32.31	84.58	56.86	US
62	AB Concentrated Growth Advisor	1/31/2021	85.05	63.96	67.63	62.04	28.77	80.55	80.97	US
63	Aberdeen US Sustainable Leaders C	1/31/2021	52.83	31.69	53.54	34.28	19.58	76.23	78.56	US
64	AIG Focused Growth A	1/31/2021	18.12	5.92	45.07	79.74	3.83	27.71	95.59	US
65	Alger Focus Equity I	12/31/2020	46.97	11.14	25.96	94.27	11.13	56.49	83.96	US
66	Amana Growth Investor	2/28/2021	76.01	17.53	38.51	76.67	21.41	83.85	38.93	US
67	American Century Focused Dynamic Gr I	12/31/2020	8.01	4.18	44.23	61.62	2.46	30.23	95.50	US
68	Ave Maria Growth	1/31/2021	70.30	62.39	67.40	37.40	25.11	77.34	84.18	US
69	BlackRock Large Cap Focus Growth Inv C	9/30/2020	36.83	6.45	22.62	92.49	4.01	75.51	93.17	US
70	Bridges Investment	12/31/2020	85.65	20.43	25.47	94.80	18.72	81.82	70.55	US
71	Chesapeake Growth	12/31/2020	35.79	31.82	18.77	82.82	20.38	59.37	76.01	US
72	Columbia Large Cap Growth Opp C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
73	Congress Large Cap Growth Institutional	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
74	Davis Opportunity C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
75	Delaware US Growth C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
76	DWS Large Cap Focus Growth C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
77	Eaton Vance Atlanta Capital Focused Gr	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
78	Edgewood Growth Retail	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
79	Fidelity® Focused Stock	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
80	FundX Aggressive Upgrader	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
81	FundX Upgrader	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
82	Goldman Sachs Concentrated Growth C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
83	ICON Equity Investor	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
84	Ivy Large Cap Growth B	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
85	Jackson Square Large-Cap Growth IS	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
86	Jackson Square Select 20 Growth IS	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
87	Janus Henderson Forty C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
88	Janus Henderson VIT Forty Svc	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
89	Jensen Quality Growth R	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
90	Lateef Focused Sustainable Growth CL A	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
91	Laudus US Large Cap Growth	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
92	Loomis Sayles Growth C	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
93	Manor Growth	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US
94	Marsico Focus	1/31/2021	46.88	11.57	33.38	88.81	13.46	69.87	84.87	US

8. At the top of the report, click the **Portfolio** link.
9. Note the **Factor Profile** graphic on the report, then use the graphic to answer the following questions:

🔗 Note: This image is also available as a component in Presentation Studio.



Question	Answer
For which factors is the fund below average compared to the category average?	
For which factors is the fund above average compared to the category average?	
For which factor does the fund show the greatest range over the trailing five-year time period?	
For which factor does the fund show the least variation over the trailing five-year time period?	

Beyond the Risk Model data seen in the grid and in the Factor Profile graphic, Morningstar Direct offers another way to visualize and understand a fund's exposure to risk factors. This exercise shows clients how to interpret a fund's exposure to risk factors as a number of standard deviations away from the mean values of all stocks comprising the Risk Model.

### Exercise 9: View the fund's Risk Factor Exposure chart

To view the selected fund's exposure to the risk factors in the Standard Factor Model, do the following:

1. Select the desktop access point of Morningstar Direct.
2. **Right-click** the selected fund, then choose **Risk Model > Risk Exposure Snapshot**.

Select this chart from the menu.

	Name	Factor Profile Date	Factor Profile - Liquidity	Factor Profile - Momentum	Factor Profile - Quality	Factor Profile - Size
61	White Oak Select Growth	12/31/2020	68.64	34.44	14.57	90.61
62	AB Concentrated Growth Advisor	1/31/2021	85.05	63.96	67.63	62.04
63	Aberdeen US Sustainable Leaders C	1/31/2021	52.83	31.69	53.54	34.28
64	AIG Focused Growth A	1/31/2021	18.12	5.02	45.07	78.74
65	Alger Focus Equity I			4	25.96	94.27
66	Amana Growth Investor			3	38.51	76.67
67	American Century Focused Dynamic Gr I				44.23	61.62
68	Ave Maria Growth			9	67.40	37.40
69	BlackRock Large Cap Focus Growth Inv C				22.62	92.49
70	Bridges Investment			3	25.47	94.80
71	Chesapeake Growth			2	18.77	82.82
72	Columbia Large Cap Growth Opp C					
73	Congress Large Cap Growth Institutional					
74	Davis Opportunity C					
75	Delaware US Growth C					
76	DWS Large Cap Focus Growth C					
77	Eaton Vance Atlanta Capital Focused Gr A					
78	Edgewood Growth Retail					
79	Fidelity® Focused Stock					
80	FundX Aggressive Upgrader					
81	FundX Upgrader					
82	Goldman Sachs Concentrated Growth C					
83	ICON Equity Investor					

View Accounts With Holding

New Transaction

View Transactions

View Prices

Edit Security

Reports

Interactive Charts

**Risk Model**

Presentation Studio Charts

Premium/Discount

View Holdings

View Owners

View Fundcode Info

View Historical Instruments

View Historical Regions

X-Ray

Performance Attribution

Historical Risk Exposure

Holdings Risk Factor

Multiple Risk Exposures

Multiple Risk Premiums

Risk Decomposition

**Risk Exposure Snapshot**

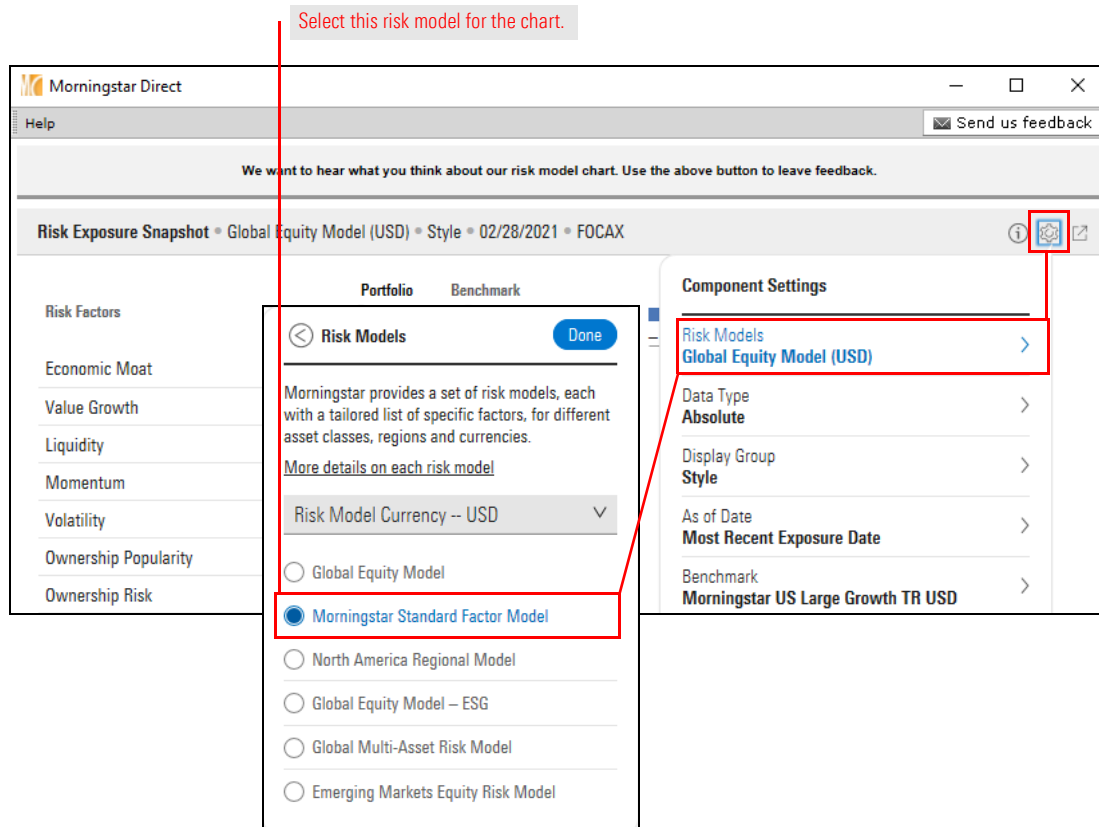
Risk Factor Attribution

Risk Premium Returns

Scenario Metrics

Scenario Trend

3. If needed, use the **Component Settings** icon to change the **Risk Models** setting to **Morningstar Standard Factor Model** (be sure to click **Done**).



4. Change the **Benchmark** setting to **By Relevancy > Morningstar Category Average**.
5. Click away from the Component Settings menu to close it.
6. **Hover the cursor** over the chart to see what percent of the fund's assets are covered under the selected risk model, then use the chart to answer the following questions:

Question	Answer
What percent of the fund's assets are covered by this Risk Model?	
Click the <b>+/- column header</b> to sort on that column. For which factors does the fund have a greater exposure compared to the category average?	
For which factors does the fund have a lower exposure compared to the category average?	

7. **Close** the **Risk Exposure Snapshot** chart.

The Risk Model also offers a way to see how a fund would perform (as currently constructed) if a variety of past market scenarios were to repeat themselves. To see how the selected fund would perform in different market scenarios, do the following:

### Exercise 10: Consider how the fund would perform in various market scenarios

1. **Right-click** the selected fund, then choose **Risk Model > Scenario Trend**.

Select the Scenario Trend chart.

	Name	Factor Profile Date	Factor Profile - Liquidity	Factor Profile - Momentum	Factor Profile - Quality	Factor Profile - Size
61	White Oak Select Growth	12/31/2020	68.64	34.44	14.57	90.61
62	AB Concentrated Growth Advisor	1/31/2021	85.05	63.96	67.63	62.04
63	Aberdeen US Sustainable Leaders C	1/31/2021	52.83	31.69	53.54	34.28
64	AIG Focused Growth A	1/31/2021	18.12	5.92	45.07	79.74
65	Alger Focus Equity I			11.14	25.96	94.27
66	Amana Growth Investor			17.53	38.51	75.67
67	American Century Focused Dynamic Gr			4.18	44.23	61.62
68	Ave Maria Growth			62.39	67.40	37.40
69	BlackRock Large Cap Focus Growth Inv			6.45	22.62	92.49
70	Bridges Investment			20.43	25.47	94.80
71	Chesapeake Growth			31.82	18.77	82.82
72	Columbia Large Cap Growth Opp C					
73	Congress Large Cap Growth Institutiona					
74	Davis Opportunity C					
75	Delaware US Growth C					
76	DWS Large Cap Focus Growth C					
77	Eaton Vance Atlanta Capital Focused Gr					
78	Edgewood Growth Retail					
79	Fidelity® Focused Stock					
80	FundX Aggressive Upgrader					
81	FundX Upgrader					
82	Goldman Sachs Concentrated Growth C					
83	ICON Equity Investor					
84	Ivy Large Cap Growth B					

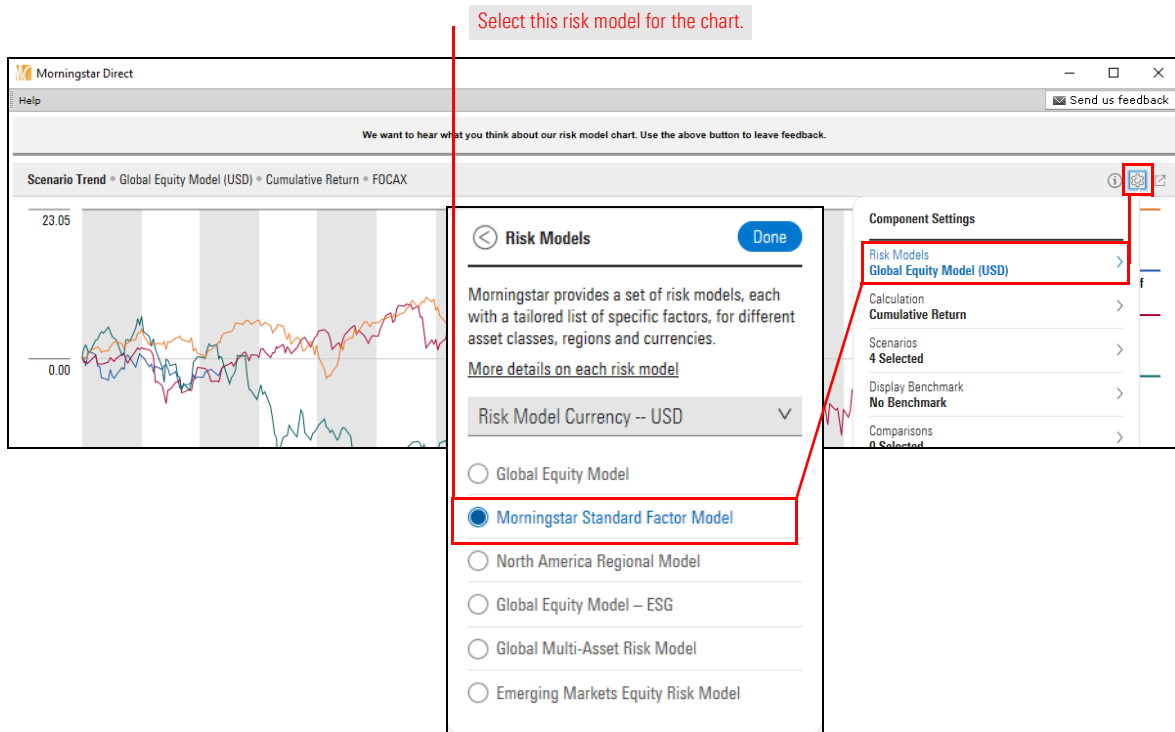
  

View Accounts With Holding	
New Transaction	
View Transactions	
View Prices	
Edit Security	
Reports	>
Interactive Charts	>
<b>Risk Model</b>	>
Presentation Studio Charts	>
Premium/Discount	
View Holdings	>
View Owners	>
View Fundcode Info	
View Historical Instruments	
View Historical Regions	
X-Ray	
Performance Attribution	>
Portfolio Analysis	
Filing	

Historical Risk Exposure	1
Holdings Risk Factor	2
Multiple Risk Exposures	0
Multiple Risk Premiums	7
Risk Decomposition	5
Risk Exposure Snapshot	3
Risk Factor Attribution	0
Risk Premium Returns	5
Scenario Metrics	3
<b>Scenario Trend</b>	3

2. Use the **Component Settings** icon to change the **Risk Models** setting to **Morningstar Standard Factor Model** (be sure to click **Done**).





3. In the **Scenarios** setting, **deselect** the **2003 Bond Selloff** option.  
 ☞ Note: Clients with the Risk Model add-on capability will first need to select the **Pre-defined Scenarios** option, as shown in the below screenshot.
4. **Select** the **2013 Taper Tantrum** and **2018 Market Volatility** scenarios, then click **Done**.

The screenshot displays the Morningstar Scenario Trend interface. At the top, a chart shows cumulative return over time. Below the chart, a 'Scenarios' dropdown menu is open, showing 'Pre-defined Scenarios' selected. To the right, a 'Component Settings' panel shows 'Risk Models' set to 'Morningstar Standard Factor Model (USD)' and 'Scenarios' set to '4 Selected'. Below the main interface, two panels show the 'Pre-defined Scenarios' list. The 'Global Macro' section shows the '2003 Bond Selloff' option deselected (checkbox unchecked). The 'US Focus' section shows the '2013 Taper Tantrum' and '2018 Market Volatility' options selected (checkboxes checked). A red box highlights these two selected scenarios. A text box on the right states: 'Be sure to deselect and select the correct scenarios here.'

5. Click away from the Component Settings menu to close it, then use the chart to answer the following questions:

Question	Answer
In which scenario is the fund expected to do best?	
Would the Oil Price Rise or Oil Price Drop scenario be better for the selected fund?	
If the 2007-2009 Subprime Crisis were to repeat, how much is the fund forecasted to lose?	
<p>For perspective on this number, do the following:</p> <ol style="list-style-type: none"> <li>1. From the <b>main Morningstar Direct window</b>, <b>right-click</b> the selected fund, then select <b>Interactive Charts &gt; Web-based Charts &gt; Growth</b>.</li> <li>2. Use the <b>Component Settings</b> icon to change the <b>Start Date</b> to <b>10/01/2007</b> and the <b>End Date</b> to <b>02/27/2009</b>.</li> <li>3. Change the <b>Data Point</b> setting to <b>Cumulative Return</b>.</li> </ol> <p>What was the fund's actual return during this time period, reflected in the 2007-2009 Market Meltdown and Subprime Crisis market pre-defined scenario?</p>	