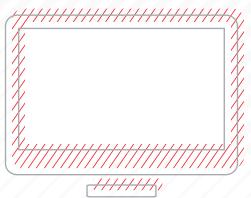
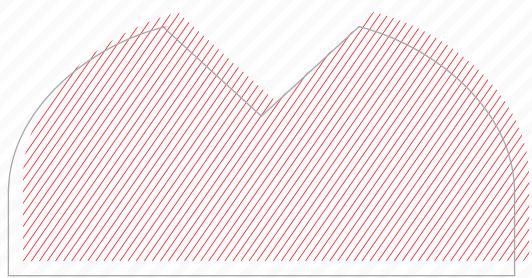
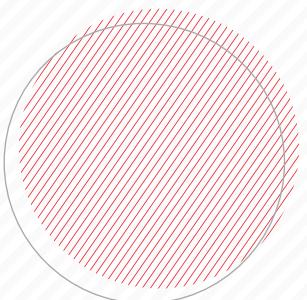


Working with Model Portfolios



Morningstar DirectSM for Asset Management



MORNINGSTAR Direct



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Working with Model Portfolios

A model portfolio is a mock-up of an actual portfolio. In Morningstar DirectSM for Asset Management, a model portfolio can be used to do the following:

- ▶ analyze a group of investments
- ▶ assign custom benchmarks, and
- ▶ add an investment policy to aid in that analysis.

By now, you should have completed the [Creating Lists & Workbooks](#), [Creating Screens](#), and [Creating Column Sets](#) guides, where you learned how to create and leverage those tools.

 Note: The phrase “portfolio object” is used throughout this guide to refer to a model portfolio, client account, custom benchmark, or investment policy.

This manual covers the following topics:

- ▶ [Creating a Model Portfolio \(page 5\)](#)
- ▶ [Using Custom Benchmarks \(page 15\)](#)
- ▶ [Using an Investment Policy \(page 41\)](#), and
- ▶ [Editing a Model Portfolio \(page 62\)](#).



Creating a Model Portfolio

A model portfolio allows you to analyze a set of investments and determine the set's suitability as a recommended investment. A model portfolio can be created either by manually entering information, or by importing data from Microsoft® Excel®.

In this section, you will learn how to do the following:

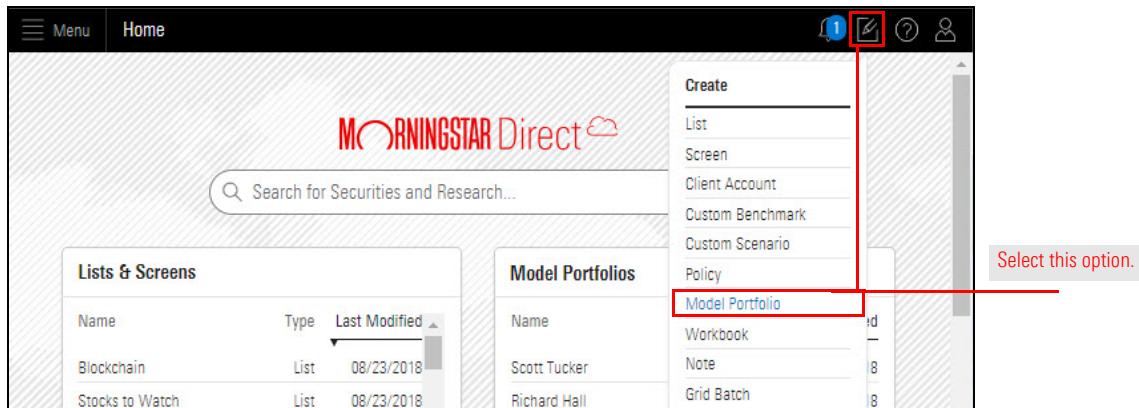
- ▶ [Exercise 1: Create a model portfolio from an investment list \(page 5\)](#)
- ▶ [Exercise 2: Create a model portfolio by importing \(page 10\)](#)

If you have a list of investments you want to examine as a single investment (or portfolio), you can use the list as the basis of a model portfolio.

In this exercise, you will create a model portfolio from an investment list, using the Income ETFs list you created in the Creating Lists and Workbooks guide. (If you do not already have this list, you can [create it now](#).)

To create a model portfolio from an investment list, do the following:

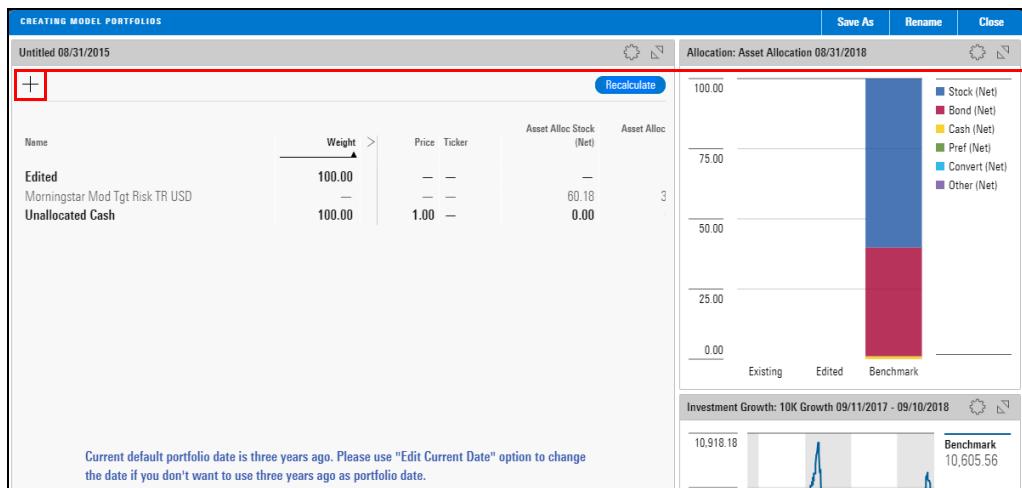
1. On the header, click the **Create** icon and select **Model Portfolio**. The Creating Model Portfolios window opens.



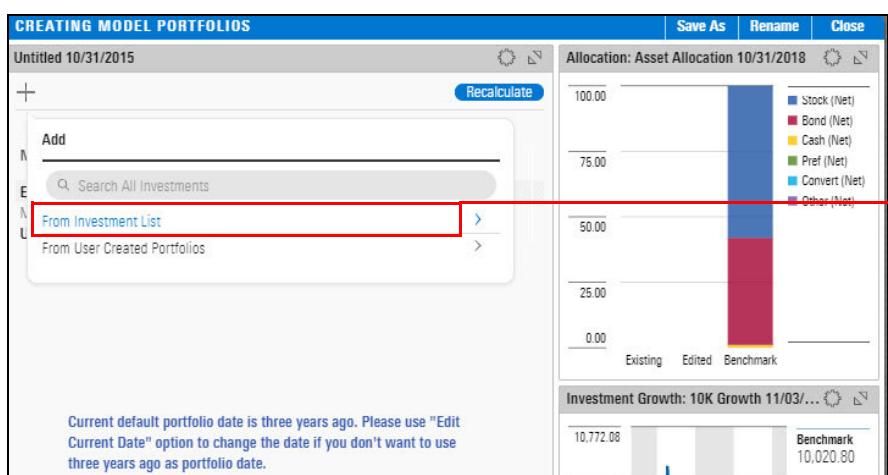
Overview

Exercise 1: Create a model portfolio from an investment list

2. In the upper-left corner, click the **Add** icon. The Add dialog box opens.



3. In the Add dialog box, select **From Investment List**. The Investment List dialog box opens.



4. From the investment lists, select **Income ETFs**.

The screenshot shows the 'Creating Model Portfolios' application interface. On the left, a sidebar titled 'Investment List' lists several investment categories. The 'Income ETFs' option is highlighted with a red box and a callout bubble containing the text 'Select this list.' On the right, there is a summary table showing asset allocation details.

Asset Alloc	Stock (Net)	Bond (Net)
—	60.18	3
	0.00	

The funds in that list are displayed as follows:

- ▶ Financial Select Sector SPDR ETF
- ▶ Invesco S&P Emerging Markets Low Vol ETF
- ▶ Real Estate Select Sector SPDF
- ▶ Schwab US Dividend Equity ETF
- ▶ Vanguard FTSE Developed Markets ETF, and
- ▶ Vanguard Growth Index Admiral.

5. Click **Add All 6 Investments**. The investments are listed in the Creating Model Portfolios window.

The screenshot shows the 'Creating Model Portfolios' application interface with the 'Editor' tab selected. The 'Add All 6 Investments' button is highlighted with a red box and a callout bubble containing the text 'Click here to add all the funds to the portfolio.' Below the button, a list of six investments is displayed.

6. Click **Close**.
7. Change the **Weight** of each fund according to this table:
 - ☞ Note: Press **Enter** after each entry to move to the next one.

Fund Name	Weight
Financial Select Sector SPDR ETF	25
Invesco S&P Emerging Markets Low Vol ETF	15
Real Estate Select Sector SPDF	15
Schwab US Dividend Equity ETF	15
Vanguard FTSE Developed Markets ETF	15
Vanguard Growth Index Admiral	15

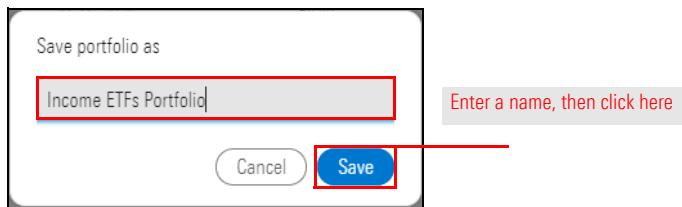
8. In the upper-right corner of the Untitled area, click **Recalculate**.

The screenshot shows a software interface for creating model portfolios. At the top, there's a toolbar with 'Save As', 'Rename', and 'Close' buttons. Below the toolbar, the title 'CREATING MODEL PORTFOLIOS' and the date 'Untitled 05/31/2016' are displayed. A large red box highlights the 'Recalculate' button in the top right corner of the main area. A callout bubble with a red border and white text points to this button with the instruction 'Click here to update the portfolio.' The main area is a table with columns for 'Name', 'Weight', 'Price', and 'Ticker'. The table lists several funds with their current weights and prices, such as Morningstar Mod Tgt Risk TR USD (Weight 100.00, Price 1.00, Ticker MSAA...), and various SPDR and Vanguard funds.

Name	Weight	Price	Ticker
Edited	100.00	—	—
Morningstar Mod Tgt Risk TR USD	—	—	MSAA...
Unallocated Cash	0.00	1.00	—
1 Financial Select Sector SPDR® ETF	25.00	27.05	XLF
2 Invesco S&P Emerging Markets Low Vol ETF	15.00	21.53	EELV
3 Real Estate Select Sector SPDR®	15.00	31.92	XLRE
4 Schwab US Dividend Equity ETF™	15.00	40.58	SCHD
5 Vanguard FTSE Developed Markets ETF	15.00	36.60	VEA
6 Vanguard Growth Index Admiral	15.00	55.72	VIGAX

9. In the upper-right corner of the Creating Model Portfolios window, click **Save As**. The "Save portfolio as" dialog box opens.

10. Enter **Income ETFs Portfolio**, then click **Save**. In the upper-left corner of the window, "Untitled" is replaced with the name of the model.



11. In the upper-right corner of the Creating Model Portfolios window, click **Close**. An alert opens, giving you the opportunity to save. Click **Don't Save**.

The Income ETFs Portfolio is displayed in the list of Model Portfolios on the Home page.

☞ Note: You might have to refresh your browser to see this.

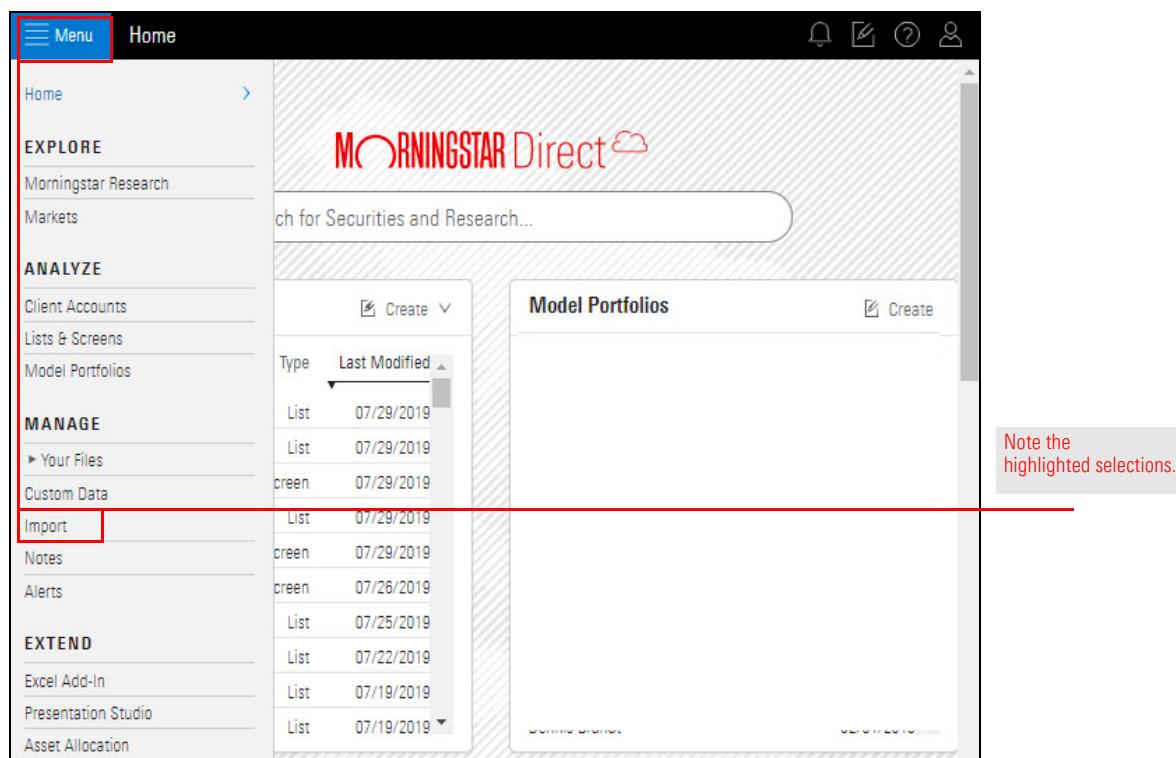
A colleague has asked you to analyze a model portfolio. She provides the model as an Excel spreadsheet. You can import it directly into a model portfolio, instead of manually entering the investments and weights (as you did in [Exercise 1 on page 5](#)).

In this exercise, you will import an Excel file to create a model portfolio.

- ☞ Note: When using an Excel file on your own, be sure to first check the requirements for importing an Excel file, found in [Data Import Specifications](#).

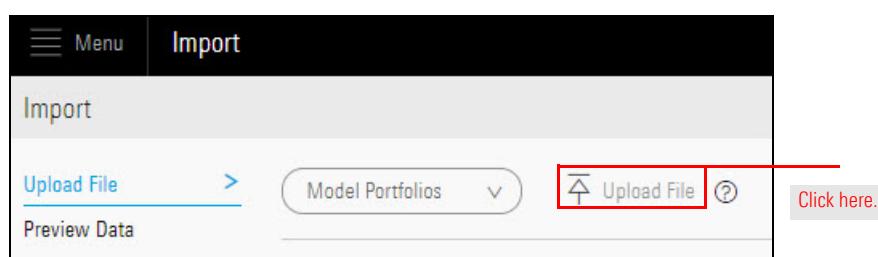
To import an Excel file, do the following:

1. Download the [Excel file](#) for this exercise.
2. In the upper-left corner of the Home page, **hover the cursor** over and select **Import**. The Import page opens.



The screenshot shows the Morningstar Direct interface. On the left, a vertical navigation menu is open, showing sections like EXPLORE, ANALYZE, MANAGE, and EXTEND. The 'Import' option under the MANAGE section is highlighted with a red box. The main content area shows a search bar and a 'Model Portfolios' section with a table of results. A red box highlights the 'Import' menu item in the sidebar. A callout box in the bottom right corner says 'Note the highlighted selections.'

3. At the left side of the Import window, the Upload File option is selected. Click **Select File Type**, then select **Model Portfolios**. To the right of the Select File Type button, the Upload File icon appears.
4. Click **Upload File**. A navigation window opens.



The screenshot shows the 'Import' window. The 'Upload File' button is highlighted with a red box. To its right is a 'Select File Type' dropdown set to 'Model Portfolios' and an 'Upload File' icon. A callout box to the right of the 'Upload File' button says 'Click here.'

5. On your computer system, **locate** and **double-click Moderate.xls** (the file you just downloaded). The Import page opens, displaying mapping options.
6. In the Column Mapping area, use the pull-down menus to make a **selection** from each **Unmapped** field. Each unmapped column must correspond to a column in the Excel spreadsheet. A selection for each column is required.

Map each column to the appropriate heading (as shown here).

Import Status

Import

Upload File > Model Portfolios Moderate.xls Preview Data

Column Mapping

Reset

Model Portfolio Name	Date	Symbol/Ticker	Holding Name	Weight %
Model Portfolio Name	Date	Identifier	Holding Name	Weight
Moderate	2012-03-31	AEPGX	American Funds Europ...	10
Moderate	2012-03-31	AMCPX	American Funds AMC...	15

Security Mapping Option

Exclude Inactive Investments

Auto Select Oldest Share

Auto Select Virtual Class

Exclude Header Row

First 1 row

Date Format

MM/DD/YYYY

Weight Format

Decimal

Percentage

Scroll right, if needed, to see more Unmapped columns.

7. In the **Exclude Header Row** field, make sure **First 1 row** is selected.
8. From the **Date Format** menu, select **MM/DD/YYYY** (or the date format you want to use).
9. In the **Weight Format** area, select **Percentage**.

Preview Data

Reset

Symbol/Ticker	Holding Name	Weight %
Ticker	Security Name	Weight
AEPGX	American Funds Europacific ...	10
AMCPX	American Funds AMCAP A	15

Exclude Header Row

First 1 row

Date Format

MM/DD/YYYY

Weight Format

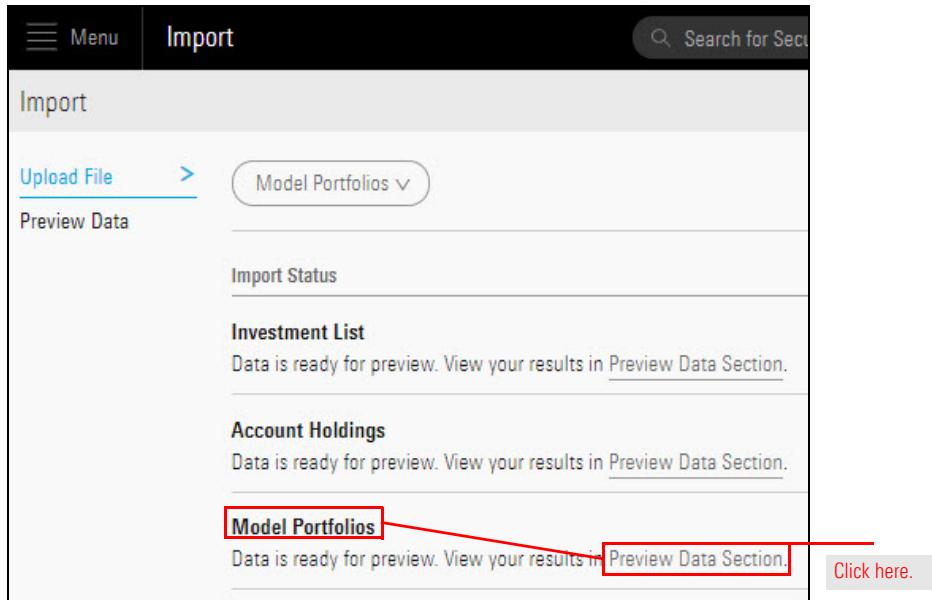
Decimal

Percentage

Note the selections in Exclude Header Row, Date Format, and Weight Format.

10. In the upper-right corner of the window, click **Preview Data**. The Import Status window opens.

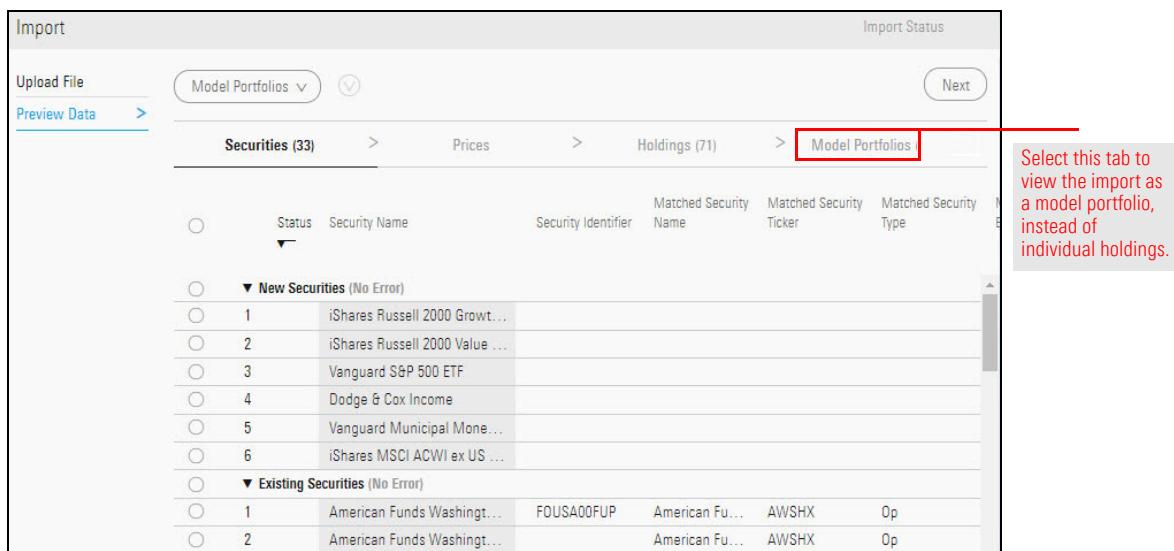
11. Under **Model Portfolios**, click **Preview Data Section**.



The screenshot shows the 'Import' interface. The 'Import' tab is selected. Under 'Preview Data', the 'Model Portfolios' section is highlighted with a red box and a red arrow pointing to the 'Preview Data Section' button. A callout box with the text 'Click here.' is positioned to the right of the button.

☞ Note: In the Preview Data window, securities listed as "New" have not been imported before. Existing Securities have been previously imported. Some securities in the spreadsheet being imported might be listed under Existing Securities.

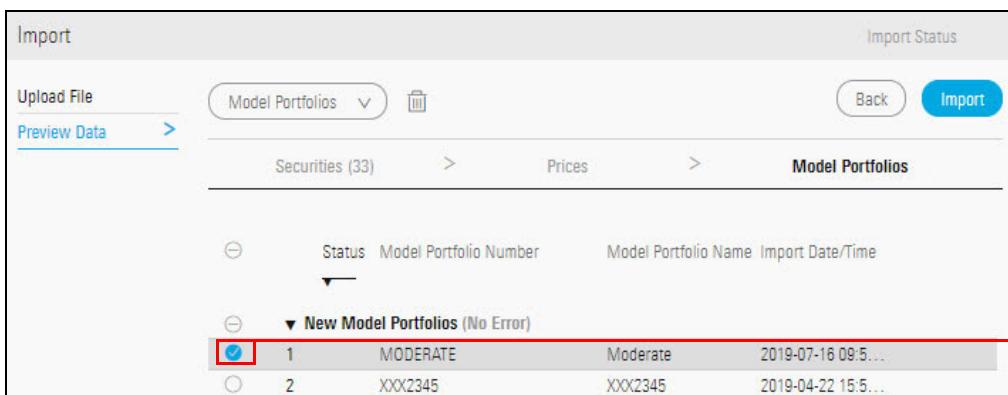
12. On the right side of the window, select the **Model Portfolios tab**.



The screenshot shows the 'Import' interface with the 'Model Portfolios' tab selected. The 'Model Portfolios' tab is highlighted with a red box. A callout box on the right contains the text: 'Select this tab to view the import as a model portfolio, instead of individual holdings.'

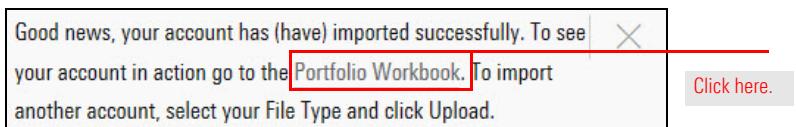
Security Identifier	Status	Security Name	Matched Security Name	Matched Security Ticker	Matched Security Type
1	New Securities (No Error)	iShares Russell 2000 Growth...			
2		iShares Russell 2000 Value ...			
3		Vanguard S&P 500 ETF			
4		Dodge & Cox Income			
5		Vanguard Municipal Mone...			
6		iShares MSCI ACWI ex US ...			
	Existing Securities (No Error)				
1		American Funds Washingt...	FOUSA00FUP	American Fu...	AWSHX Op
2		American Funds Washingt...		American Fu...	AWSHX Op

13. Click the **circle** next to **Moderate**, then select **Import**.



Click this button.

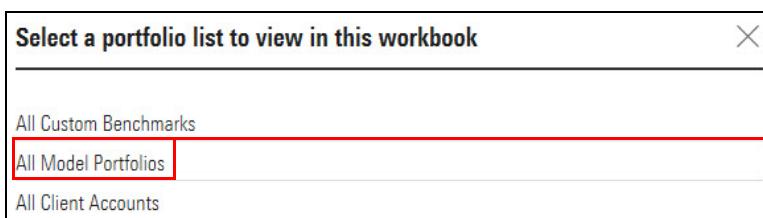
14. A message opens, announcing the account was imported successfully. Click **Portfolio Workbook**. The "Select a portfolio list to view in this workbook" dialog box opens.



Good news, your account has (have) imported successfully. To see your account in action go to the [Portfolio Workbook](#). To import another account, select your File Type and click Upload.

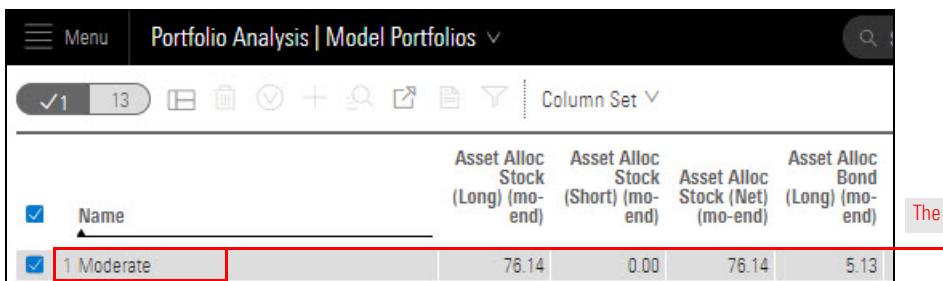
Click here.

15. In the "Select a portfolio list to view in this workbook" dialog box, select **All Model Portfolios**.



Select this option.

In the workbook, the Moderate model portfolio is displayed in the Grid.



The imported portfolio is selected.

16. To see the holdings in the model portfolio, in the Grid, click **Moderate**. The Analytical View opens from the right. The Holdings tab is selected.

Click the model portfolio's name to open the Analytical View.

Name	Ticker	Weight	Morningstar Analyst Rating	Return (1M - mo-end)
Moderate	—	0.00	—	—
1 Morningstar Mod Tgt Risk TR USD	MSAAX	—	—	4.30
2 American Funds Capital World Gr Inc A	CWGIX	0.00	Gold	6.14
3 American Funds Washington Mutual A	AWSHX	0.00	Gold	6.24
4 American Funds New Perspective A	ANWPX	0.00	Gold	6.90
5 American Funds Intl Gr and Inc529A	CGIAX	0.00	Gold	6.56
6 American Funds American Mutual A	AMRMX	0.00	Gold	5.15
7 American Funds AMCAP A	AMCPX	0.00	Gold	6.83
8 iShares Core S&P 500 ETF	YACKX	0.00	Gold	4.30
9 American Funds Growth Fund of Amer A	AGTHX	0.00	Bronze	6.49
9 American Funds Europacific Growth A	AEPGX	0.00	Gold	6.62

Working with Custom Benchmarks

A custom benchmark is created by manually adding indexes or investments and allocating weights to them, or by importing a file. The blended benchmark can then be used in the following ways:

- ▶ Assigned to model portfolios
- ▶ Displayed in various charts and tables, and
- ▶ Used as a reference point when analyzing model portfolios.

This section covers the following topics and exercises:

- ▶ [Why should I use a custom benchmark? \(page 15\)](#)
- ▶ [Exercise 3: Create a custom benchmark \(page 16\)](#)
- ▶ [Exercise 4: Create a custom benchmark of Morningstar indexes \(page 19\)](#)
- ▶ [Exercise 5: Import a set of custom benchmarks \(page 22\)](#)
- ▶ [Exercise 6: Apply custom benchmarks to a model portfolio \(page 27\)](#)
- ▶ [What are the options for displaying benchmarks? \(page 30\)](#)
- ▶ [Exercise 7: Compare the Morningstar Sector allocations of a model portfolio and a benchmark \(page 30\)](#)
- ▶ [Exercise 8: Compare the historical returns of a model portfolio and both of its benchmarks \(page 35\)](#)
- ▶ [Exercise 9: Hide a benchmark \(page 36\)](#)
- ▶ [Exercise 10: Compare the Sustainability Ratings Analysis of a model portfolio and both of its benchmarks \(page 37\)](#)

When comparing a model portfolio to a common yardstick of market performance, such as the S&P 500 or the Bloomberg Barclays U.S. Aggregate Bond Index, the results might not always be helpful, unless you want to compare a portfolio's Beta to a single index.

A custom benchmark can help you discover if the investment selections in a model portfolio are helping or hurting the returns. A benchmark is also a view into whether the model portfolio could benefit from a simpler and less expensive mix of holdings.

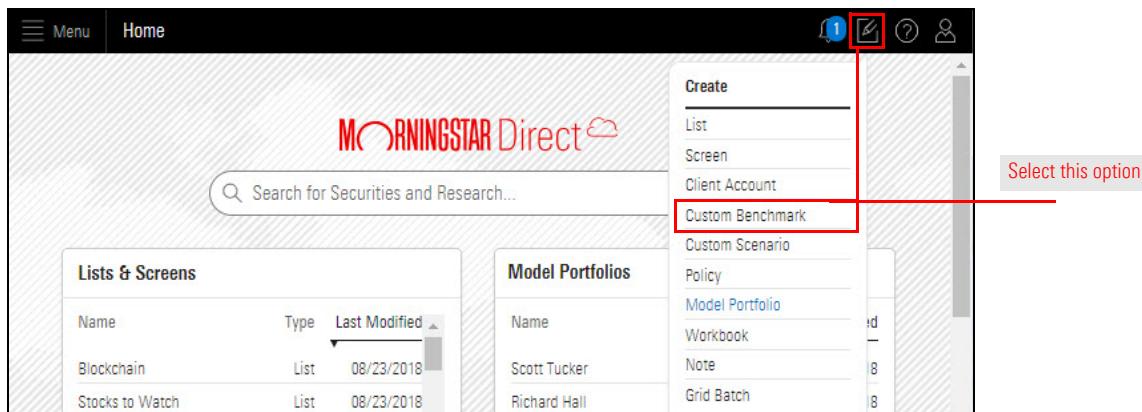
Overview

Why should I use a custom benchmark?

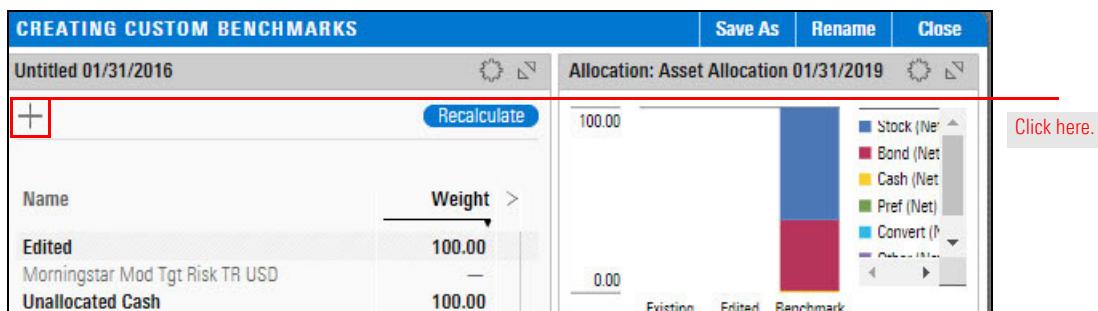
In this exercise, you will create a custom benchmark composed of indexes. When the goal is moderate risk and returns, this benchmark can be a measuring and comparison tool. Is the model portfolio too conservative to meet the investment goals? Riskier than intended? Which current holdings are contributing to the conservative or risky nature of the portfolio?

Do the following:

1. On the header, click the **Create** icon, then select **Custom Benchmark**. The Creating Custom Benchmarks window opens.



2. In the upper-left corner of the Untitled area, click the **Add** icon. The Search dialog box opens.



3. In the **Search** field, type **S&P 500 TR USD**.
4. In the search results, **click** that index. The Search dialog box closes and the S&P 500 TR USD index is added to the list in the Untitled area.

5. Repeat **step 2** through **step 4** to **add** each of the following indexes:
 - ▶ Russell 2000 Growth TR USD
 - ▶ Russell 2000 Value TR USD
 - ▶ BBgBarc US Agg Bond TR USD
 - ▶ MSCI ACWI Ex US (EAFE Prior to 07/01/13), and
 - ▶ BBgBarc US Treasury Bill 1-3 Mon TR USD.

☞ Note: Allow time for each index to load before adding the next.
6. In the Weight column, change the **weight** of each index as shown in the following table:

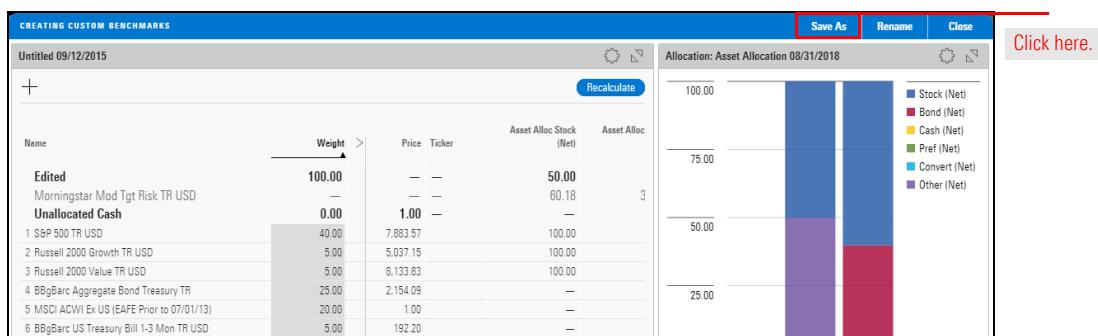
☞ Note: Press **Enter** after each entry to move to the next row.

Index Name	Weight
S&P 500 TR USD	40
BBgBarc US Agg Bond TR USD	25
MSCI ACWI Ex US (EAFE Prior to 07/01/13)	20
Russell 2000 Growth TR USD	5
Russell 2000 Value TR USD	5
BBgBarc US Treasury Bill 1-3 Mon TR USD	5

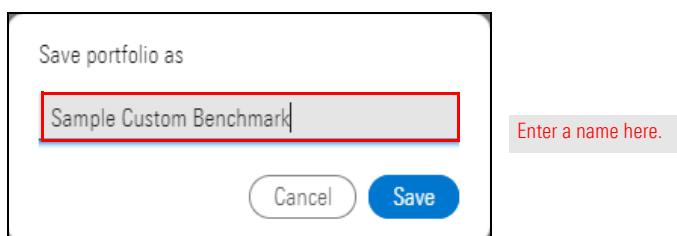
7. In the upper-right corner of the Untitled area, click **Recalculate**.

Name	Weight	Price	Ticker
Edited	100.00	—	—
Morningstar Mod Tgt Risk TR USD	—	—	MSAA...
Unallocated Cash	0.00	1.00	—
1 S&P 500 TR USD	40.00	7,845.92	—
2 BBgBanc US Agg Bond TR USD	25.00	1,924.28	—
3 MSCI ACWI Ex US (EAFE Prior to 07/01/13)	20.00	1.00	—
4 BBgBanc US Treasury Bill 1-3 Mon TR USD	5.00	192.20	—
5 Russell 2000 Growth TR USD	5.00	5,006.93	—
6 Russell 2000 Value TR USD	5.00	8,112.92	—

8. In the upper-right corner of the window, click **Save As**. The Save As dialog box opens.



9. In the Save As dialog box, enter **Sample Custom Benchmark**, then click **Save**.

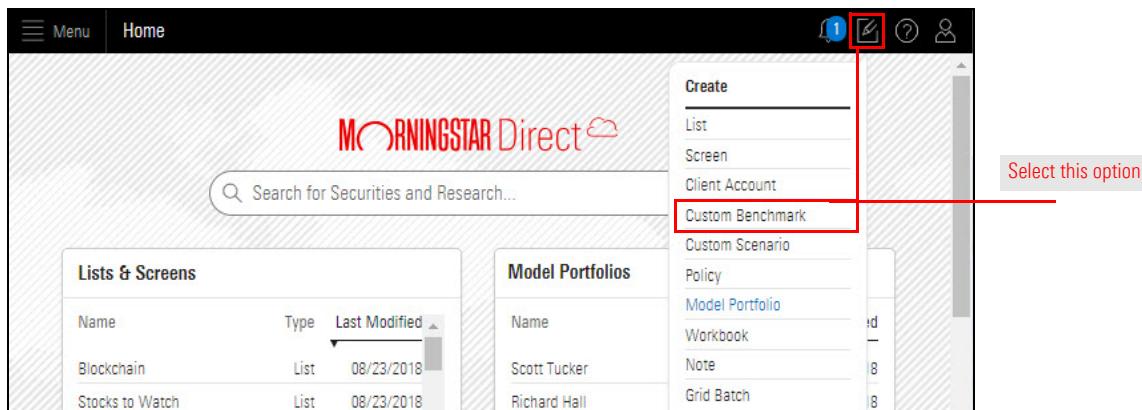


10. In the upper-right corner of the Creating Custom Benchmarks window, click **Close**.

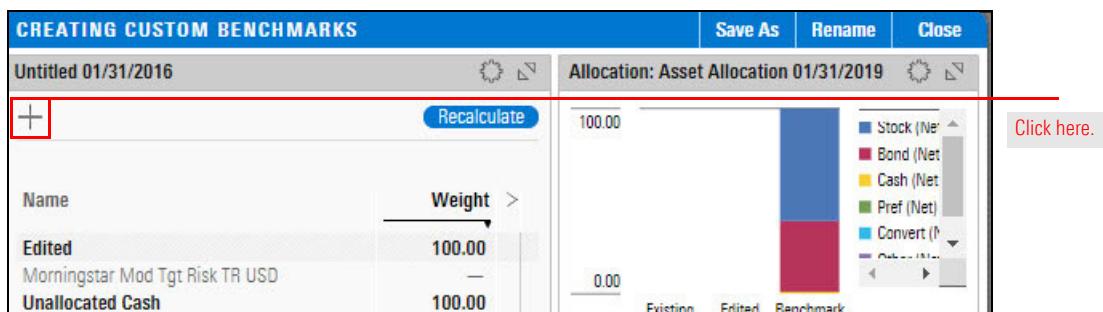
In [Exercise 3 on page 16](#), you created a custom benchmark composed of several commonly used indexes. In this exercise, you'll create a benchmark composed of similar Morningstar indexes with the same weights. The benefit of using Morningstar indexes is that all users have constituent rights to these indexes. Also, having a second benchmark can offer a unique perspective on a model portfolio.

Do the following:

1. On the header, click the **Create** icon, then select **Custom Benchmark**. The Creating Custom Benchmarks window opens.



2. In the upper-left corner of the Untitled area, click the **Add** icon. The Search dialog box opens.



3. In the **Search** field, type **Morningstar US Market TR USD**.
4. In the search results, **click** that index. The Search dialog box closes and Morningstar US Market TR USD is added to the list in the Untitled area.
5. Repeat **step 2** through **step 4** to **add** each of the following indexes:
 - ▶ Morningstar Gbl Ex US PR USD, and
 - ▶ Morningstar US Growth TR USD
 - ▶ Morningstar US Trgt Value TR USD
 - ▶ Morningstar Mod Agg Tgt Risk TR USD
 - ▶ Morningstar US Treasury TR USD.

☞ Note: Allow time for each index to load before adding the next.

Name	Weight	Price	Ticker
Edited	100.00	—	—
Existing	—	—	MSAA...
Morningstar Mod Tgt Risk TR USD	100.00	1.00	—
Unallocated Cash			
1 Morningstar US Market TR USD	—	1,473.85	
2 Morningstar Gbl Ex US PR USD	—	243.29	MSBICBTR
3 Morningstar US Growth TR USD	—	224.25	MSBIGVTR
4 Morningstar US Trgt Value TR USD	—	8,224.89	MSTART
5 Morningstar Mod Agg Tgt Risk TR USD	—	2,598.48	MSGRT
6 Morningstar US Treasury TR USD	—	5,977.18	MSVLT

6. In the **Weight** column, change the **weight** of each index as shown in the following table:

☞ Note: Press **Enter** after each entry to move to the next row.

Index Name	Weight
Morningstar US Market TR USD	40
Morningstar Gbl Ex US PR USD	20
Morningstar US Growth TR USD	5
Morningstar US Trgt Value TR USD	5
Morningstar Mod Agg Tgt Risk TR USD	25
Morningstar US Treasury TR USD	5

7. In the upper-right corner of the Untitled area, click **Recalculate**.

Name	Weight	Price	Ticker
Edited	100.00	—	—
Existing	100.00	—	—
Morningstar Mod Tgt Risk TR USD	—	—	MSA...
Unallocated Cash	0.00	1.00	—
1 Morningstar US Market TR USD	40.00	8,224.89	MSTART
2 Morningstar Gbl Ex US PR USD	20.00	1,473.85	—
3 Morningstar US Growth TR USD	5.00	2,469.65	MGROT
4 Morningstar US Trgt Value TR USD	5.00	8,086.10	—
5 Morningstar Mod Agg Tgt Risk TR USD	25.00	2,810.18	MSA...
6 Morningstar US Treasury TR USD	5.00	224.28	MSBIU...

8. In the upper-right corner of the window, click **Save As**. The Save As dialog box opens.

Name	Portfolio Weight	Bench... Weight	+/-
Technology (Net)	22.80	16.00	6.80
Healthcare (Net)	12.27	9.85	2.41
Cons Cyc (Net)	12.12	11.11	1.01
Fin Svcs (Net)	9.12	15.45	-6.33
Industrials (Net)	7.06	9.52	-2.46
Energy (Net)	4.27	5.57	-1.30
Cons Def (Net)	3.27	7.15	-3.88
Basic Mats (Net)	2.48	4.87	-2.39
Comm Svcs (Net)	1.89	3.40	-1.51
Real Estate (Net)	0.68	3.91	-3.23
Utilities (Net)	0.30	3.11	-2.81

9. In the Save As dialog box, enter **Morningstar Indexes Benchmark**, then click **Save**.

Enter a name.

Cancel Save

10. In the upper-right corner of the window, click **Close**.

Another way to create a custom benchmark is to import a set of custom benchmarks. In this exercise, you will import the following custom benchmarks from Microsoft Excel:

- Moderate Custom Benchmark,
- Aggressive Custom Benchmark, and
- Conservative Custom Benchmark.

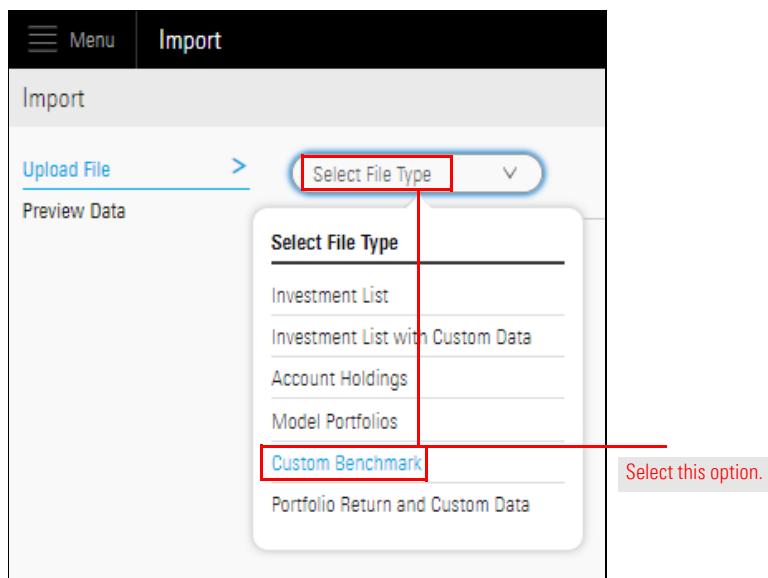
Do the following:

1. **Download** the [Excel file](#) for this exercise.
2. **Hover the cursor** over the **Menu**, then select **Import**. The Import page opens.

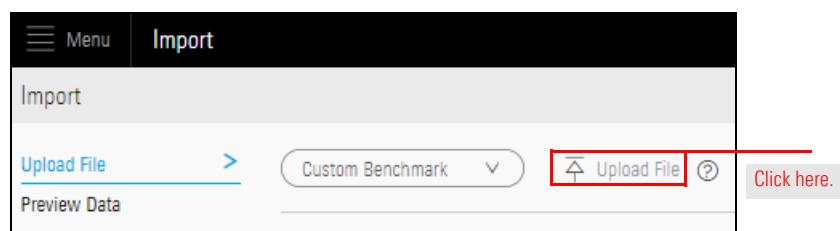
The screenshot shows the Morningstar Direct interface. The left sidebar has a 'Menu' button at the top, followed by several sections: EXPLORE (Morningstar Research, Markets), ANALYZE (Client Accounts, Lists & Screens, Model Portfolios), MANAGE (Your Files, Custom Data, Import), and EXTEND (Excel Add-In, Presentation Studio, Asset Allocation). The 'Import' option under MANAGE is highlighted with a red box. The main content area shows the 'Model Portfolios' section with a 'Create' button. Below it is a table of lists, sorted by 'Last Modified'. A callout box on the right contains the text 'Note the highlighted selections.'.

Type	Last Modified
List	07/29/2019
List	07/26/2019
List	07/25/2019
List	07/22/2019
List	07/19/2019
List	07/19/2019

3. From the **Select File Type** menu, select **Custom Benchmark**.



4. Click **Upload File**.



5. On your computer system, **locate** and **double-click** **CustomBenchmarks.xlsx** (the file you just downloaded). The Import page opens, displaying mapping options.

6. In the Column Mapping area, use the pull-down menus to make a **selection** for each **Unmapped** column. Each unmapped column must correspond to a column in the Excel spreadsheet. A selection for each column is required.
7. In the **Exclude Header Row** field, select **First 1 row**.
8. In the **Weight Format** area, select the option for **Percentage**.

Custom Benchmark ID	Custom Benchmark Name	Date	Holding Name	Weight %
Custom Benchmark ID	Custom Benchmark Name	Date	Holding Name (Morningstar Index)	Weight
CB123456	Moderate Custom Benchmark	2009-01-01	Morningstar EM GR USD	10
CB123456	Moderate Custom Benchmark	2009-01-01	Morningstar Gbl Mkts xUS GR USD	20

Security Mapping Option

Exclude Inactive Investments

Auto Select Oldest Share

Exclude Header Row

Date Format

Weight Format Percentage

Scroll right to see more Mapping Columns.

Make sure to select these options.

9. Click **Preview Data**.
10. From the Preview page, click **Preview Data Section** under the Custom Benchmark section.

Import

Upload File > **Custom Benchmark**

Preview Data

Model Portfolios
Data is ready for preview. View your results in [Preview Data Section](#).

Custom Benchmark
Data is ready for preview. View your results in [Preview Data Section](#).

Note the highlighted selections.

11. Select the **Custom Benchmarks** tab.

Security Name	Security Identifier	Matched Security Name	Matched Security Ticker	Matched Security Type
Morningstar US Inter Gov ...	Morningstar...	MSBIIIGTR	Private F	
Morningstar US Core Bd T...	Morningstar...	MSBICBTR	Private F	

12. To select all three custom benchmarks, click the **circle** to the left of **New Custom Benchmarks**.

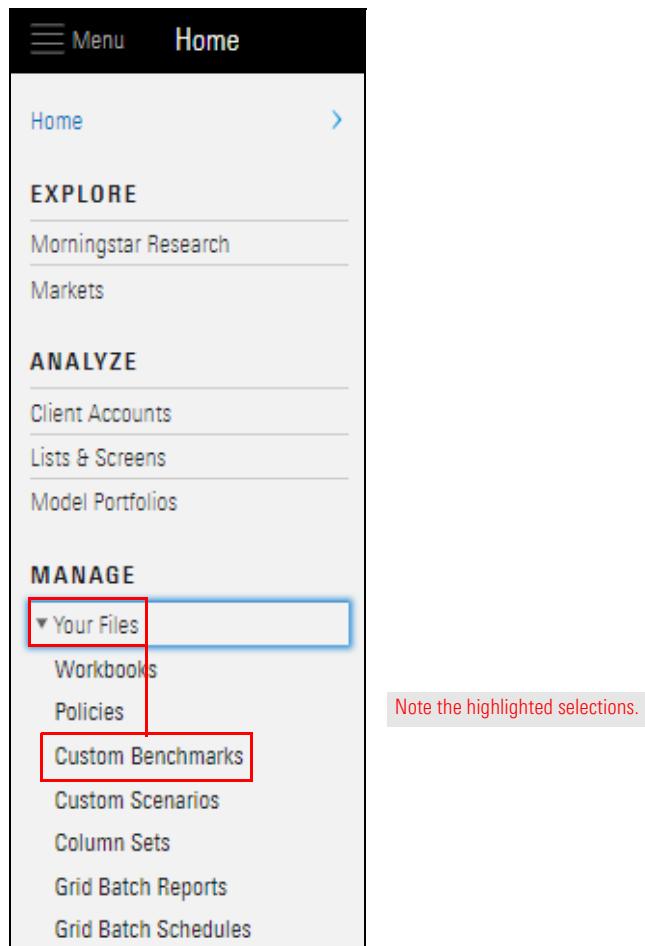
Custom Benchmark ID	Custom Benchmark Name	Import Date/Time
CB123456	Moderate Custom Benchmark	2019-08-01 10:2...
CB234567	Aggressive Custom Benchmark	2019-08-01 10:2...
CB345678	Conservative Custom Benchmark	2019-08-01 10:2...

13. Click **Import**. A notification dialog box opens.

14. In the upper-right corner, click the **X** to close the dialog box.

Good news, your custom benchmark has (have) imported successfully. To see your custom benchmark in action go to the [Portfolio Workbook](#). To import another custom benchmark, select your [File Type](#) and click [Upload](#).

15. Hover the cursor over **Menu**, then select **Your Files > Custom Benchmarks**. The Custom Benchmarks page opens.



The screenshot shows the "Custom Benchmarks" page. At the top, there are buttons for "Create Benchmark" and "Delete". Below that, a message says: "Select a previously created Benchmark from the below table. To create or delete a Benchmark, use the controls above." A table lists five custom benchmarks:

	Name	Type	Owner	Last Modified Date
<input type="checkbox"/>	1 Aggressive Custom Benchmark	Editable	Me	08/01/2019
<input type="checkbox"/>	2 Conservative Custom Benchmark	Editable	Me	08/01/2019
<input type="checkbox"/>	3 Moderate Custom Benchmark	Editable	Me	08/01/2019
<input type="checkbox"/>	4 Morningstar Indexes Benchmark	Editable	Me	07/16/2019
<input type="checkbox"/>	5 Sample Custom Benchmark	Editable	Me	05/16/2019

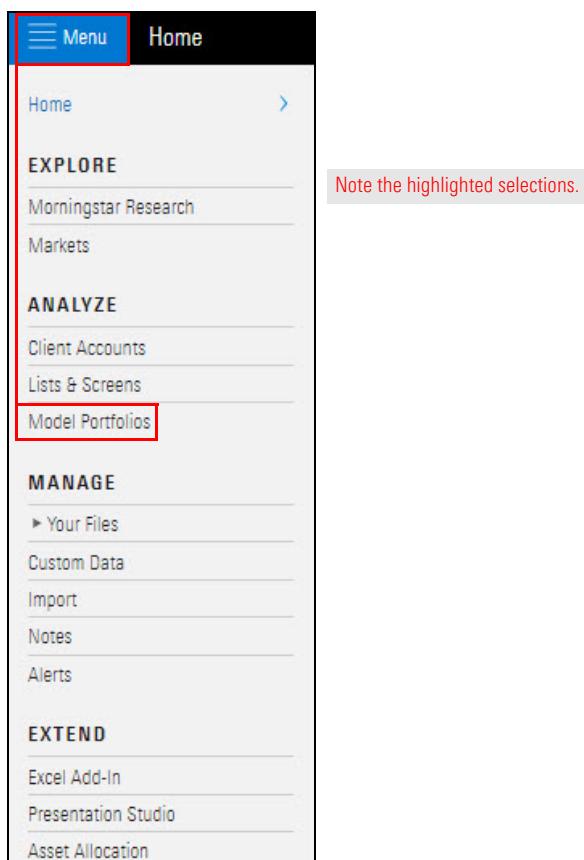
A red box highlights the "All your custom benchmarks are listed on this page." note on the right side of the page.

In this exercise, you will apply two custom benchmarks to the Income ETFs Portfolio. They will then be available to use for comparison when analyzing the model portfolio.

☞ Note: In this exercise, you will assign benchmarks from the Model Portfolios page; however, it can also be done from the Grid in the Model Portfolios workbook.

Do the following:

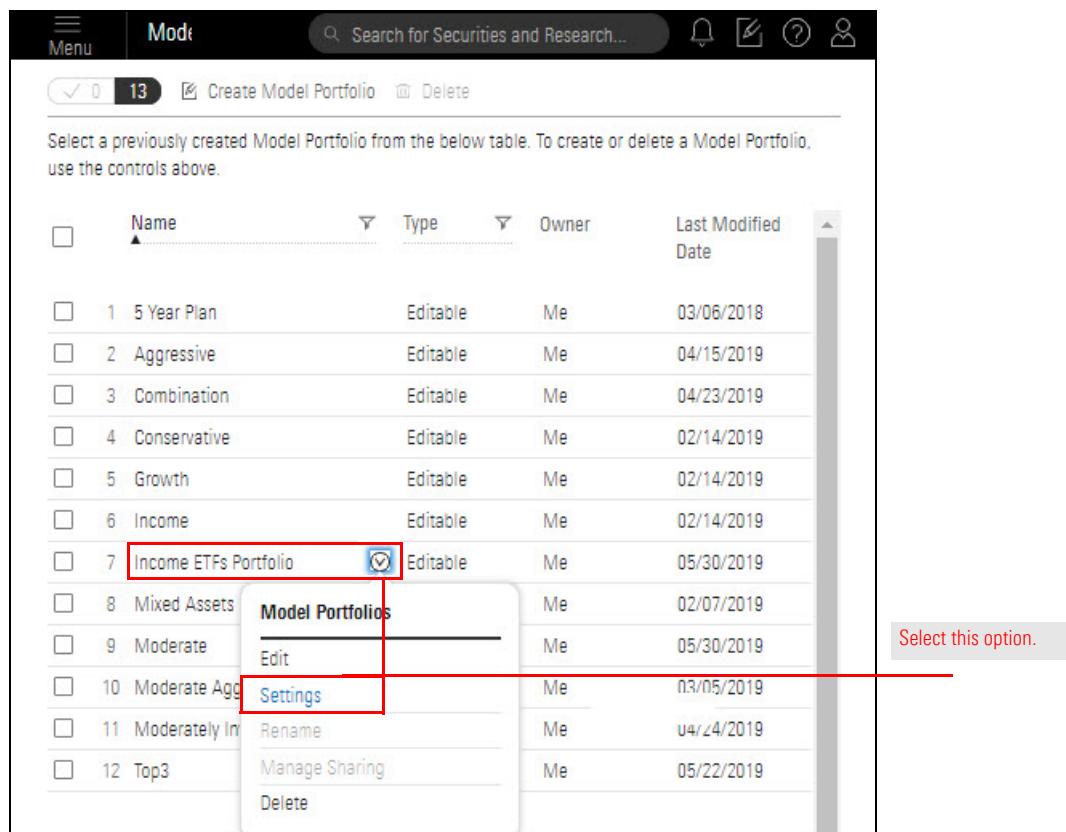
1. On the header, **hover the cursor** over **Menu**, then select **Model Portfolios**. The Model Portfolios page opens.



2. On the Model Portfolios page, **hover the cursor** over the **Income ETFs Portfolio** row. The Actions icon appears to the right.

Exercise 6: Apply custom benchmarks to a model portfolio

3. From the **Actions** menu, select **Settings**. The Model Portfolio Settings window opens.

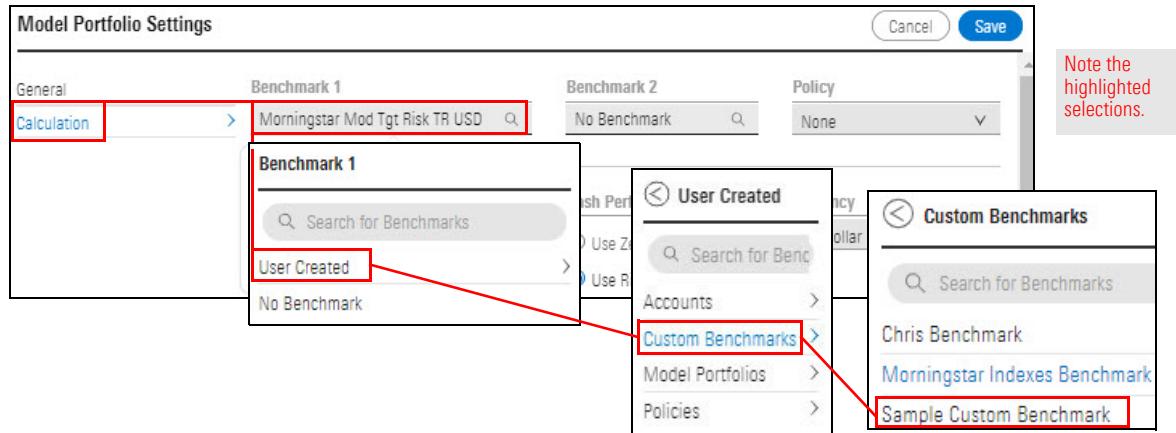


The screenshot shows a list of Model Portfolios. Portfolio 7, 'Income ETFs Portfolio', is selected, indicated by a checked checkbox in the first column. A red box highlights the 'Settings' option in the context menu that appears when the right-clicked on this row. A red line connects the 'Settings' option to a callout box containing the text 'Select this option.'.

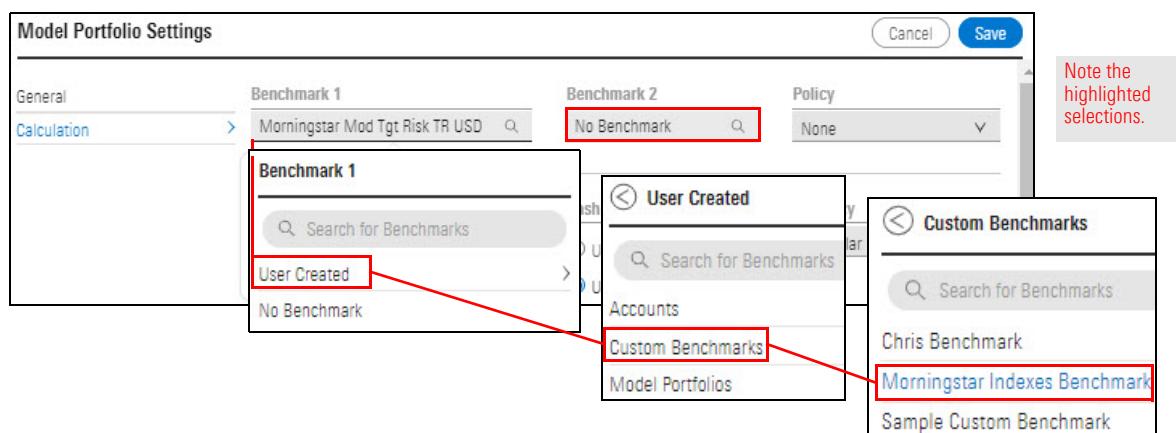
	Name	Type	Owner	Last Modified Date
<input type="checkbox"/>	1 5 Year Plan	Editable	Me	03/06/2018
<input type="checkbox"/>	2 Aggressive	Editable	Me	04/15/2019
<input type="checkbox"/>	3 Combination	Editable	Me	04/23/2019
<input type="checkbox"/>	4 Conservative	Editable	Me	02/14/2019
<input type="checkbox"/>	5 Growth	Editable	Me	02/14/2019
<input type="checkbox"/>	6 Income	Editable	Me	02/14/2019
<input type="checkbox"/>	7 Income ETFs Portfolio	Editable	Me	05/30/2019
<input type="checkbox"/>	8 Mixed Assets	Editable	Me	02/07/2019
<input type="checkbox"/>	9 Moderate	Editable	Me	05/30/2019
<input type="checkbox"/>	10 Moderate Agg	Editable	Me	03/05/2019
<input type="checkbox"/>	11 Moderately In	Editable	Me	04/24/2019
<input type="checkbox"/>	12 Top3	Editable	Me	05/22/2019

Select this option.

4. On the left side of the window, select **Calculation**. The Calculation fields appear in the empty area.
5. Click the **Benchmark 1** field. The Benchmark 1 menu opens.
6. Select **User Created > Custom Benchmarks > Sample Custom Benchmark**.



7. Click the **Benchmark 2** field. The Benchmark 2 menu opens.
8. Select **User Created > Custom Benchmarks > Morningstar Indexes Benchmark**.



9. In the upper-right corner of the window, click **Save**. The window closes.

Not every chart and table support the display of benchmarks. Of the charts and tables that can display benchmarks, some can display only one at a time, while others can display both simultaneously. To learn which charts and tables are capable of displaying benchmark(s) and which benchmark(s) are displayed by default, please read [Displaying Benchmarks in Client Accounts](#).

What are the options for displaying benchmarks?

In this exercise, the Morningstar Sector allocation of the Income ETFs Portfolio will be compared to the Morningstar Indexes Benchmark.

Do the following:

1. The Model Portfolios page should still be open. Click **Income ETFs Portfolio**. The “Select a workbook to view the model portfolio” dialog box opens.

Model Portfolios

Select a previously created Model Portfolio from the below table. To create or delete a Model Portfolio, use the controls above.

<input type="checkbox"/>	Name	Type	Owner
<input checked="" type="checkbox"/>	1 Income ETFs Portfolio	Editable	Me
<input checked="" type="checkbox"/>	2 Top3	Editable	Me
<input checked="" type="checkbox"/>	3 Mixed Assets	Editable	Me

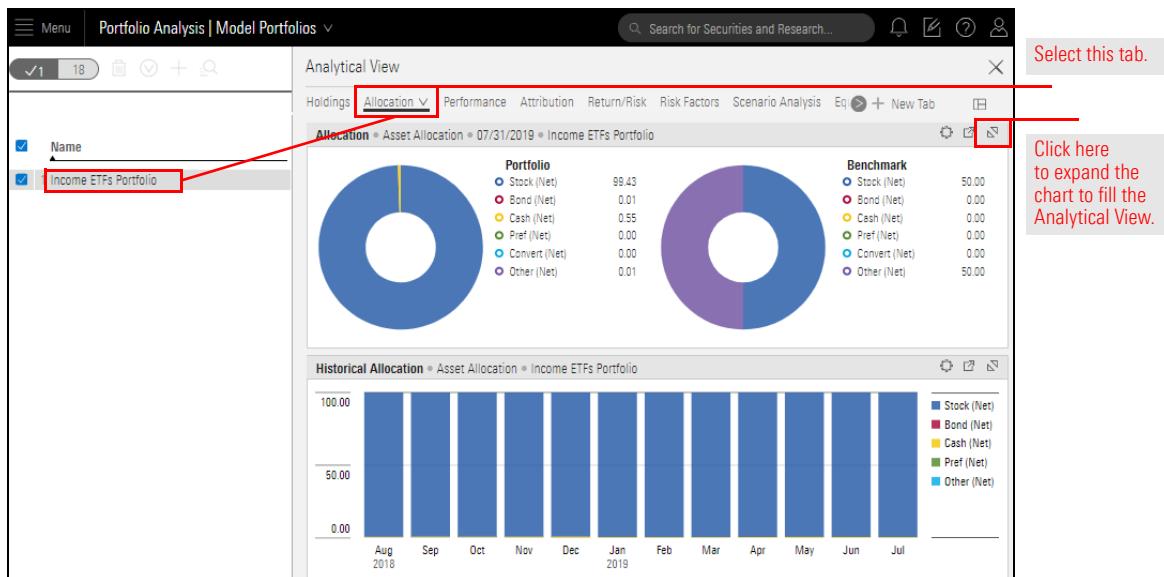
2. Click **Model Portfolios**. The Model Portfolios workbook opens, displaying Income ETFs Portfolio in the Grid.

Select a workbook to view the model portfolio:

Locate Workbook	Type	Owner	Modified	Created
Client Accounts Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Custom Benchmarks Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Model Portfolios Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Client Accounts & Proposals	Portfolios	Me	10/19/2018	10/19/2018
Client Accounts with Sustainability	Portfolios	Me	12/11/2018	12/11/2018
Client Accounts-Proposals	Portfolios	Me	02/13/2019	02/13/2019
PChris Portfolio	Portfolios	Me	06/14/2017	06/13/2017

3. In the **Model Portfolios** workbook, click **Income ETFs Portfolio**. The Analytical View opens from the right.
4. Select the **Allocation** tab. In the Allocation chart, both the model portfolio and Benchmark 1 allocation data is displayed by default. The Historical Allocation chart displays data for only the model portfolio.

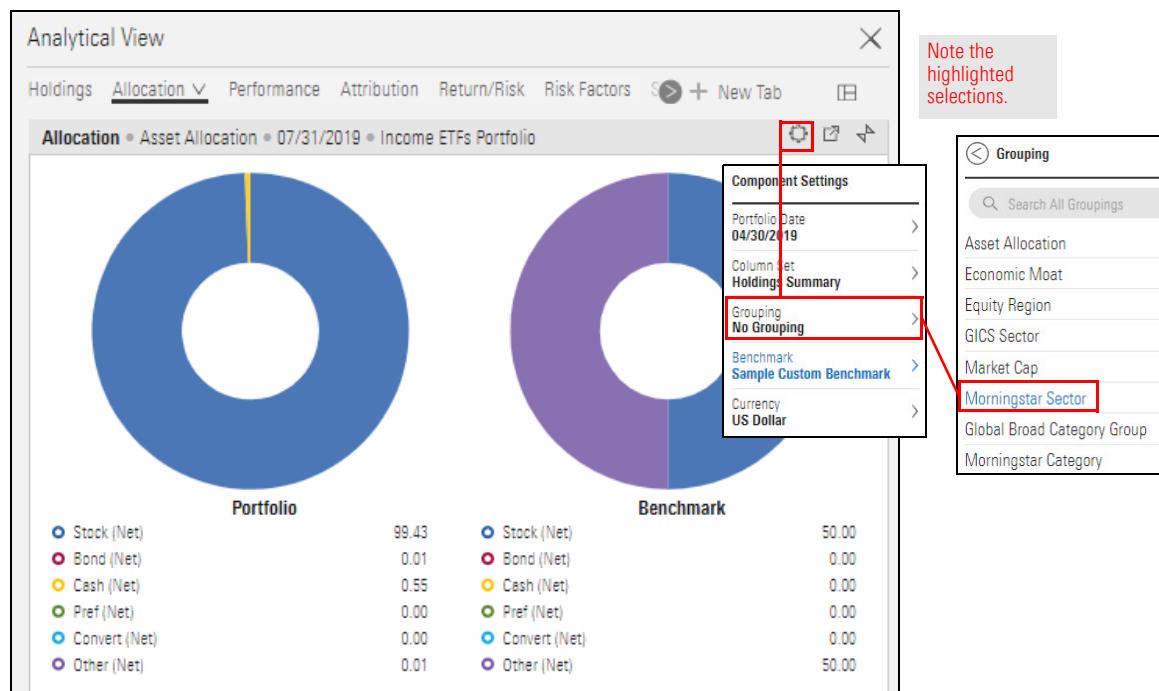
☞ Note: To see the donut charts for both the model portfolio and its benchmark, you might need to **expand** the Holdings Analysis chart or **widen** the browser window.



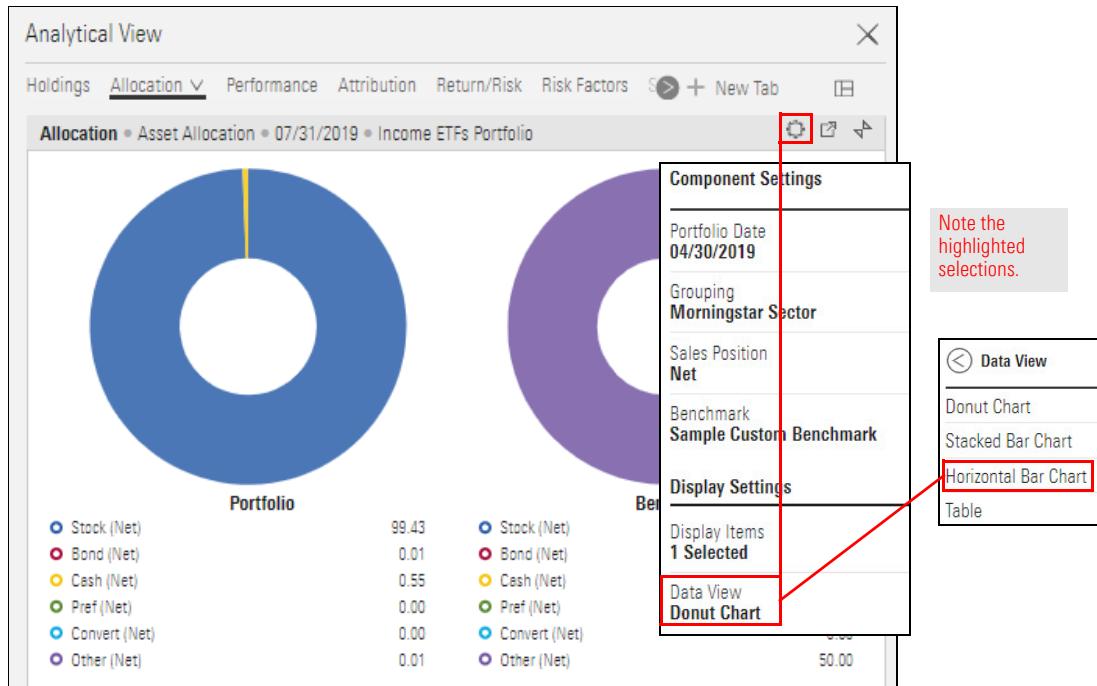
Working with Custom Benchmarks

5. By default, the Allocation chart shows the asset class allocation of the Income ETFs Portfolio and its assigned Benchmark 1 as a donut chart or charts. To display Morningstar Sectors as a horizontal bar chart, do the following:

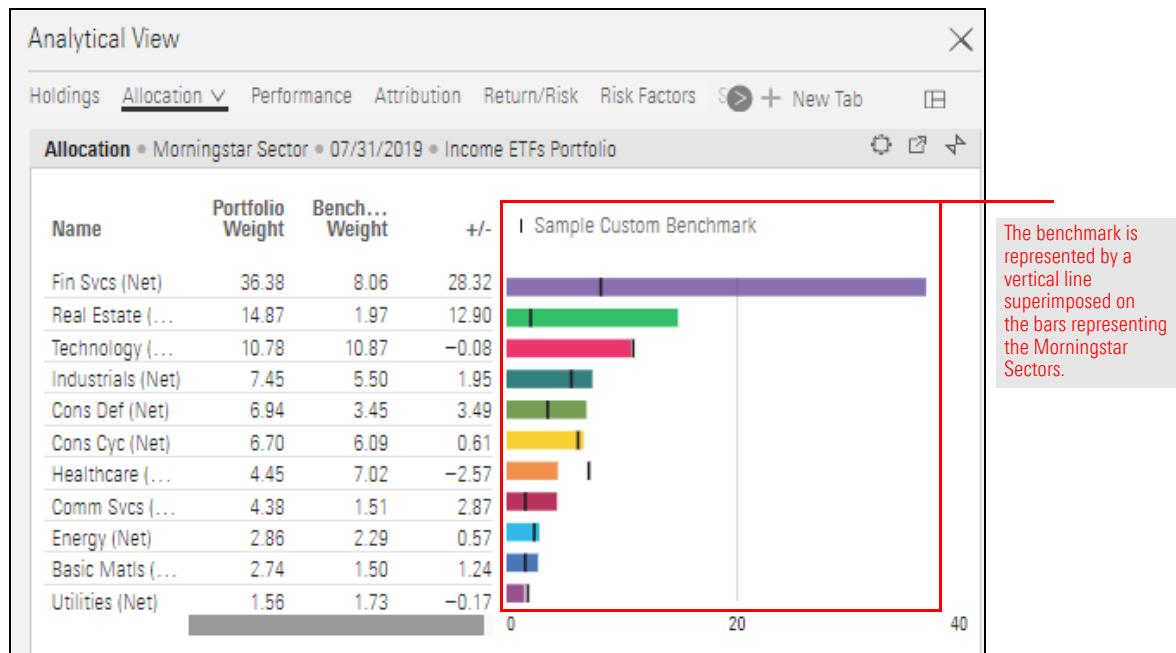
A. Click the **Component Settings** icon, then select **Grouping > Morningstar Sector**.
The Component Settings menu is displayed again.



B. Select **Data View > Horizontal Bar Chart**.

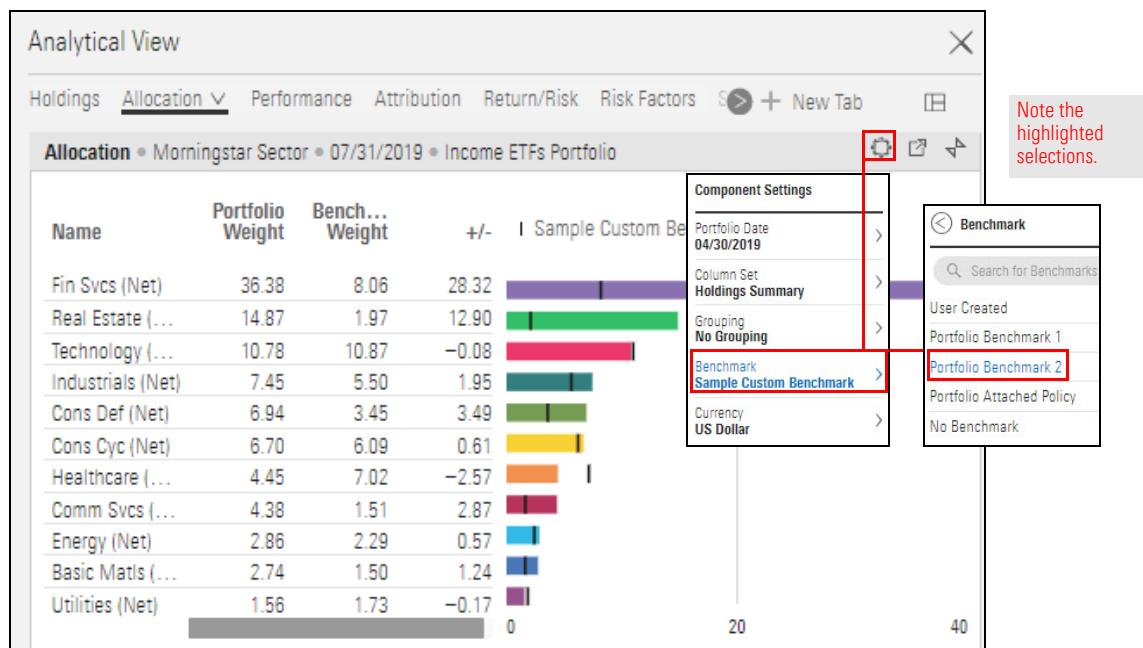


C. Click away from the Component Settings menu to close it.

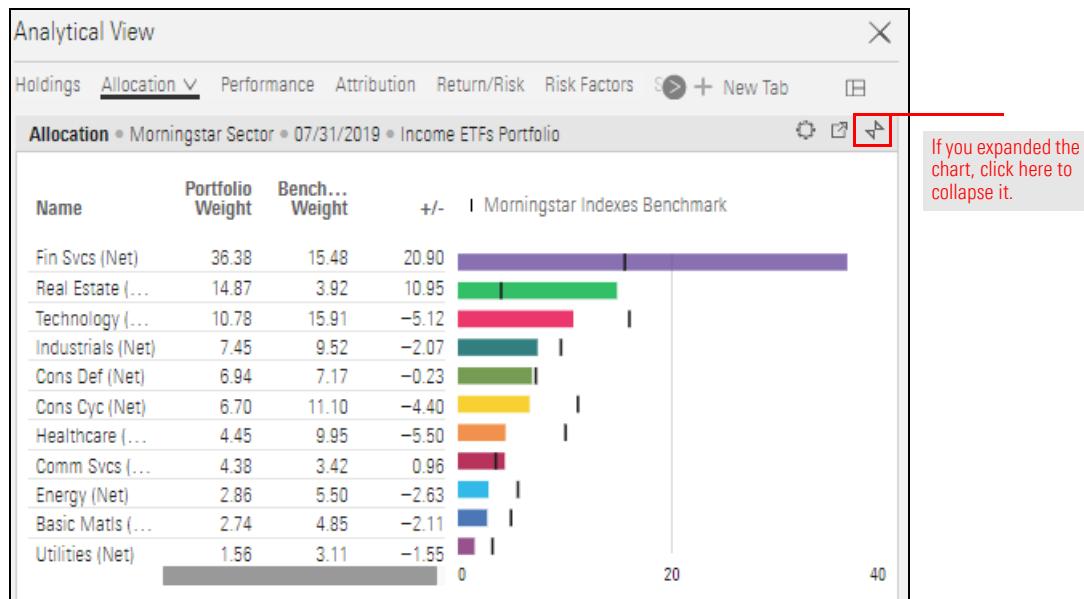


6. To display Benchmark 2 (Morningstar Indexes Benchmark), click the **Component Settings** icon, then select **Benchmark > Portfolio Benchmark 2**.

Note that you can select Portfolio Benchmark 1 or Portfolio Benchmark 2, but not both.



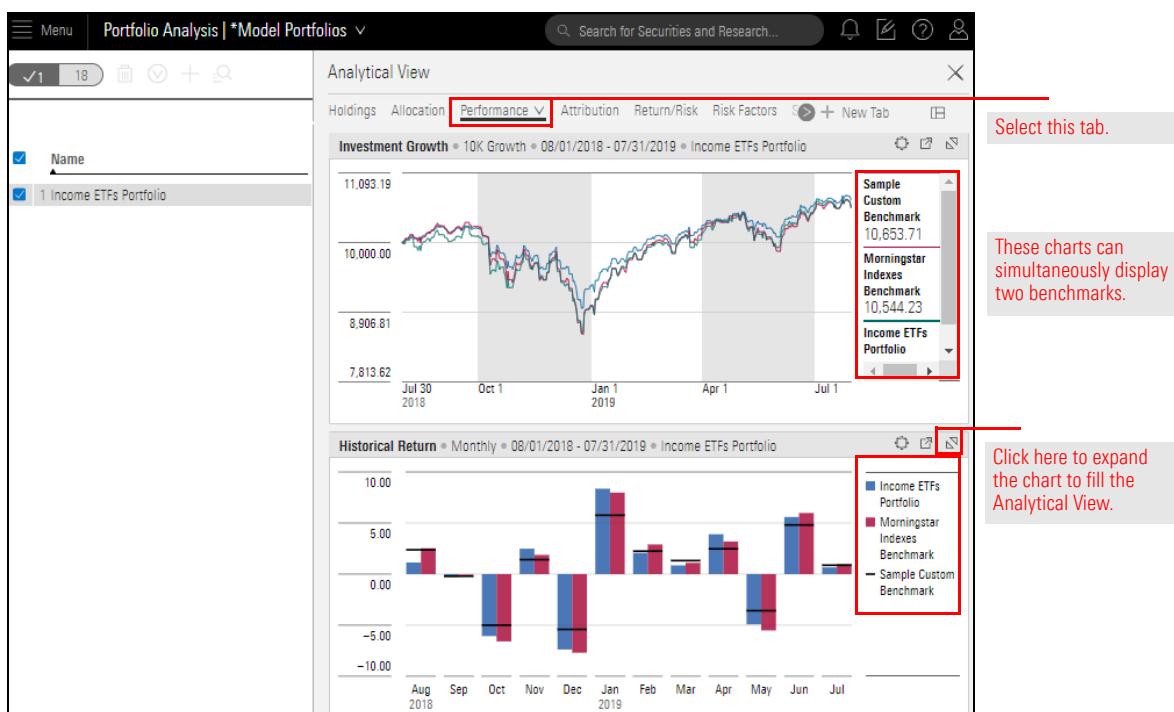
7. **Click away** from the Component Settings menu to close it. Note the Benchmark 2 sector allocations and **compare** them to the model portfolio.



Some charts and tables can display two benchmarks at the same time. In this exercise, you will do that in the Historical Return chart.

Do the following

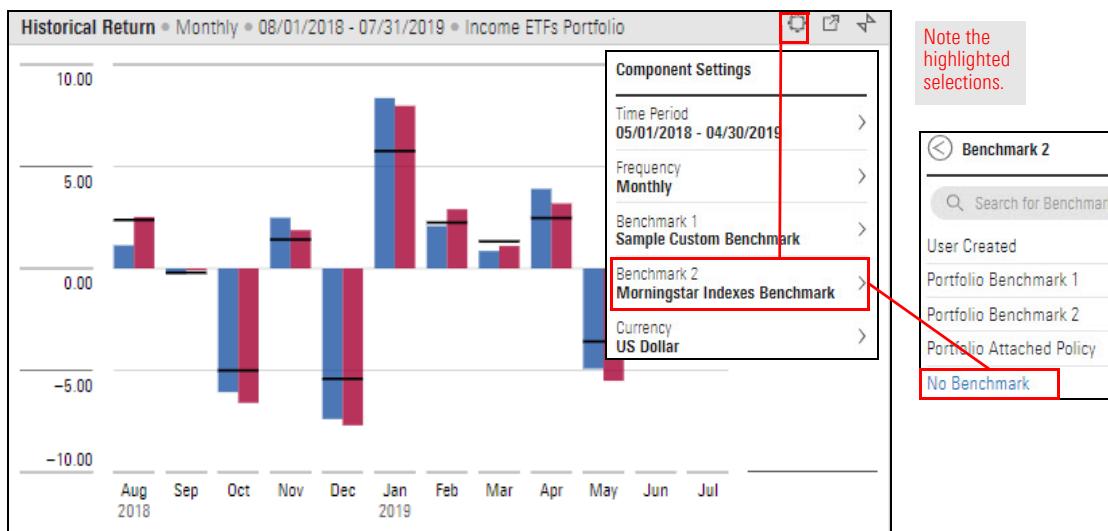
1. Select the **Performance** tab and make sure **Income ETFs Portfolio** is still selected.
2. In both Performance charts (Investment Growth and Historical Return), **note** that benchmark names are displayed in the legend and in the chart.
3. To better focus on the Historical Return chart, **expand** it.



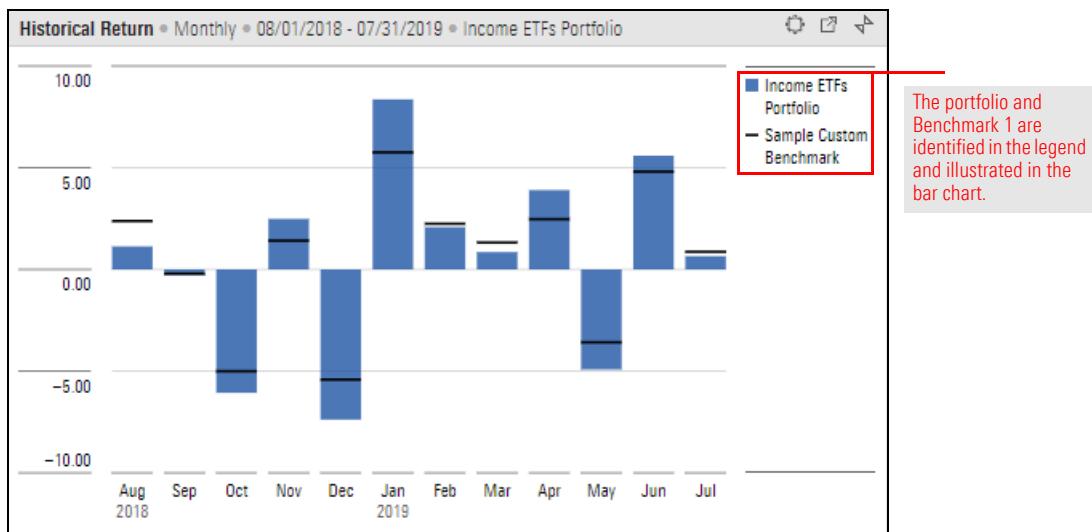
A chart capable of displaying both benchmarks also includes an option to hide one or both.

Do the following:

1. The Historical Return chart displays both benchmarks by default, but one or both can be hidden. To display only Benchmark 1 (Sample Custom Benchmark), click the **Component Settings** icon, then select **Benchmark 2 > No Benchmark**.



2. **Click away** from the Component Settings menu to close it. Now the Morningstar Indexes Benchmark is hidden.



In what months (if any) did the model portfolio outperform the benchmark?

Did the benchmark experience a significant downturn at any time in the past year? If so, how did the model portfolio perform during that time?

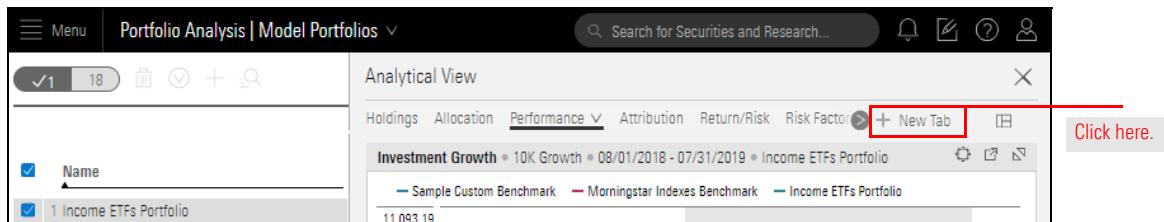
What is your overall assessment of the model portfolio's returns over the past year, compared to Sample Custom Benchmark?

Suppose you want to use the Sustainability Ratings Analysis chart to compare Income ETFs Portfolio to both benchmarks simultaneously. Unfortunately, the Sustainability Ratings Analysis chart can display only one benchmark at a time, and by default, it displays Benchmark 1 (in this case, Sample Custom Benchmark).

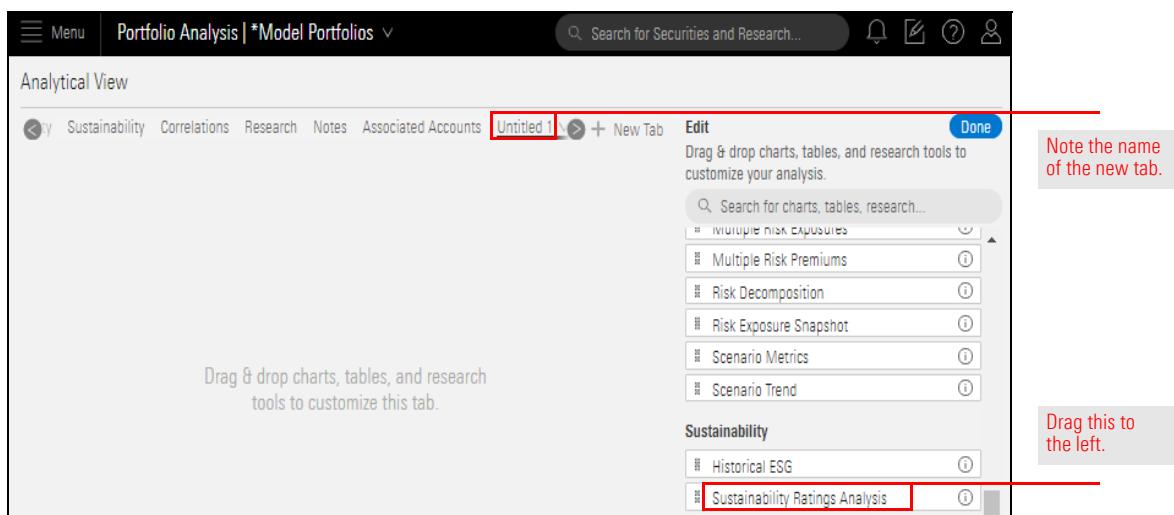
However, when a second instance of the Sustainability Ratings Analysis chart is created, each instance can display a different benchmark.

Do the following:

1. In the Analytical View of **Income ETFs Portfolio**, on the Tabs bar, select **New Tab**. A new tab opens. It is named Untitled 1 and displays no charts, tables, or research tools. Also, the Edit panel automatically opens.



2. In the Edit panel, scroll down to the **Sustainability** area. Drag **Sustainability Ratings Analysis** from the Edit panel and place it in the empty area of the Analytical View.



Exercise 10: Compare the Sustainability Ratings Analysis of a model portfolio and both of its benchmarks

Working with Custom Benchmarks

3. To create a second instance of the chart, drag **Sustainability Ratings Analysis** from the Edit panel and **place it to the right** of the existing chart.

The screenshot shows the Morningstar Direct interface with the 'Analytical View' tab selected. In the center, there is a 'Sustainability Ratings Analysis' chart for 'US Equity Large Cap Blend' dated '07/31/2019'. The chart displays the following data:

Category	Rating	Score
Income ETFs Portfolio	Above Average	53.32
Portfolio ESG	Above Average	5.76
Controversy	Sustainability	47.56
99% of AUM		
Sample Custom Benchmark		45.51
99% of AUM		

On the right side of the interface, there is an 'Edit' panel with a 'Done' button at the top. The 'Edit' panel lists various tools:

- Search for charts, tables, research...
- Multiple Risk Exposures
- Multiple Risk Premiums
- Risk Decomposition
- Risk Exposure Snapshot
- Scenario Metrics
- Scenario Trend
- Sustainability** (highlighted with a red box)
- Historical ESG
- Sustainability Ratings Analysis** (highlighted with a red box)
- Associate Accounts
- Notes

A red box highlights the 'Sustainability Ratings Analysis' tool in the 'Edit' panel. A red arrow points from this box to the right of the chart, with the text 'Drag this... to here.' indicating where to place a second instance of the chart.

4. At the top of the Edit panel, click **Done** to close it.

Two instances of the Sustainability Ratings Analysis chart are displayed. Note that each instance displays the same data—Income ETFs Portfolio and Sample Custom Benchmark.

☞ Note: To see both charts in full, you might need to widen your browser window.

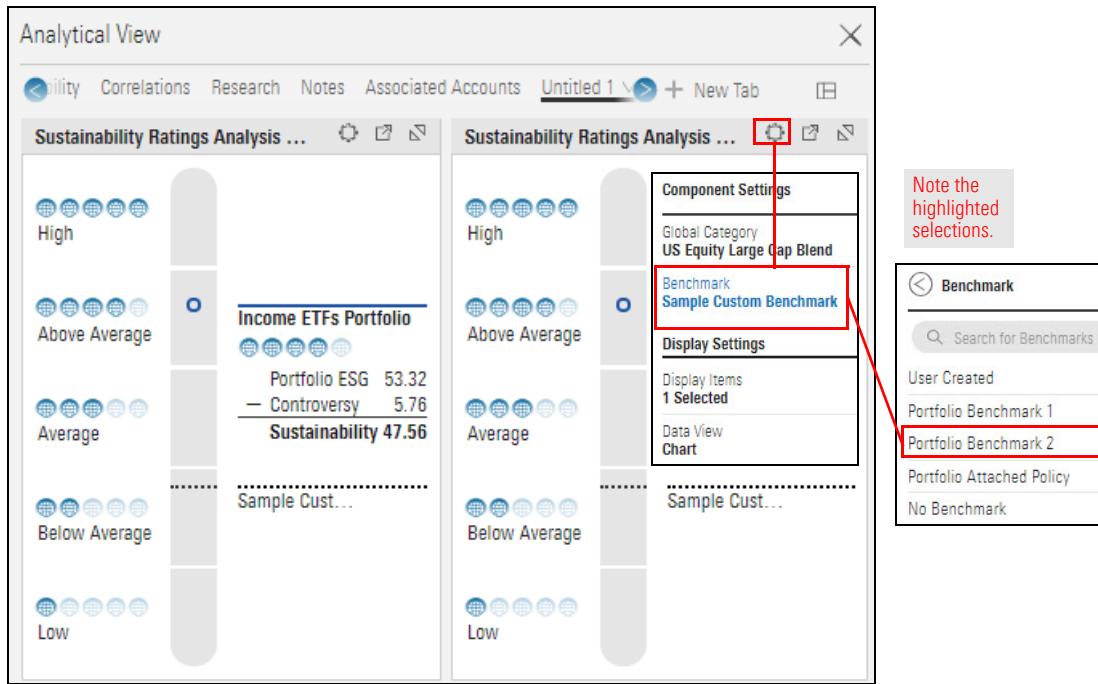
The screenshot shows the Morningstar Direct interface with the 'Analytical View' tab selected. There are two instances of the 'Sustainability Ratings Analysis' chart displayed side-by-side. Both charts show the same data for the 'Income ETFs Portfolio' and 'Sample Custom Benchmark'. The data is as follows:

Category	Rating	Score
Income ETFs Portfolio	Above Average	53.32
Portfolio ESG	Above Average	5.76
Controversy	Sustainability	47.56
Sample Custom Benchmark		45.51

A red box highlights the data for the 'Income ETFs Portfolio' in both charts. A red arrow points from the text 'Both instances match.' to the right of the charts.

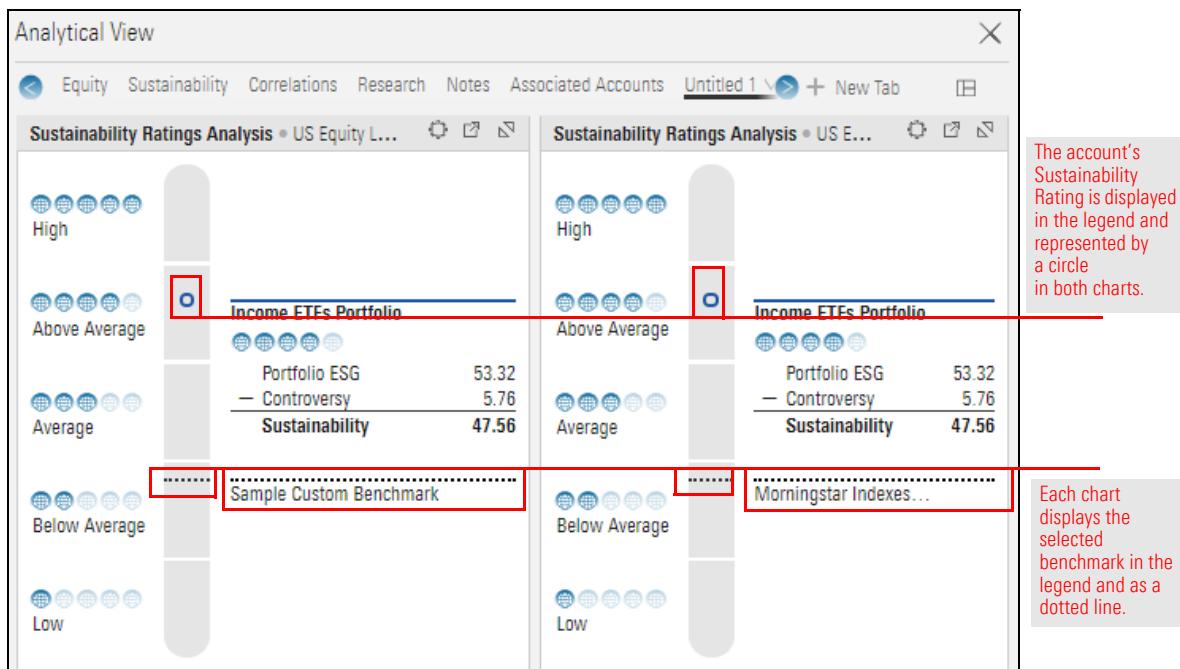
Working with Custom Benchmarks

5. In the right chart, click the **Component Settings** icon, then select **Benchmark > Portfolio Benchmark 2**.



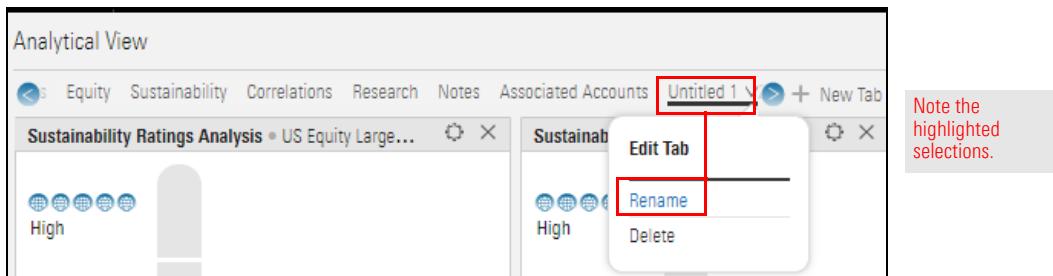
6. Click away from the Component Settings menu to close it.

Note the benchmark and account information in the legend.

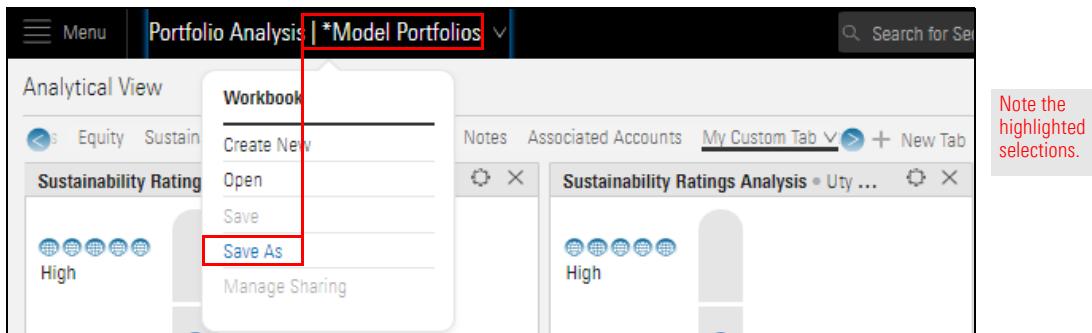


7. (Optional) If you want to save the new tab (Untitled 1), you must save the tab and then use Save As to save the workbook. Do the following:

- On the Tabs bar, **hover the cursor** over **Untitled 1**.
- From the menu, select **Rename**.



- Name the tab **My Custom Tab**.
- To save the workbook, **hover the cursor** over the workbook name (**Client Accounts**).
- From the menu, select **Save As**. Note that Save cannot be selected.



- Name the workbook **My Custom Workbook** and click **Save**

Using an Investment Policy

An investment policy serves as a blueprint for investment plans. How much should a client invest in equities versus fixed income versus commodities versus cash, or other asset classes? For the equity portion, how much will be in US stocks versus international stocks? Small/Mid-Cap versus Large Cap holdings? Value versus growth? An investment policy is designed to communicate this path.

Overview

Morningstar Direct for Asset Management allows you to create custom policies to document your firm's various investment strategies. Not only can an investment policy be used to compare a model portfolio's alignment to asset allocation lineups and performance outcomes, but also to conduct total portfolio attribution for a model portfolio to determine if adjustments should be made, either to asset classes or the managers selected.

This section covers the following topics and exercises:

- ▶ [What is involved in creating an investment policy? \(page 42\)](#)
- ▶ [Exercise 11: Create an investment policy and its Level 1 asset classes and proxies \(page 43\)](#)
- ▶ [Exercise 12: Add a level for Morningstar Category \(page 45\)](#)
- ▶ [Exercise 13: Create the Level 2 asset classes and proxies \(page 46\)](#)
- ▶ [Exercise 14: Assign weights to the Level 2 asset classes \(page 50\)](#)
- ▶ [Exercise 15: Save an investment policy \(page 51\)](#)
- ▶ [Exercise 16: Create an investment policy from a custom benchmark \(page 52\)](#)
- ▶ [Exercise 17: Attach an investment policy to a model portfolio \(page 55\)](#)
- ▶ [Exercise 18: Compare the allocations of the model portfolio and the policy \(page 57\)](#)
- ▶ [Exercise 19: Use groupings to replicate a policy's asset classes \(page 59\)](#)

In this section, you will create an investment policy and apply it to a model portfolio. Global Broad Category, Morningstar Category, and Morningstar Institutional Category are the levels initially available for a policy, but custom data points can be used to build policies instead of (or in addition to) these.

- ☞ Note: To create a policy based on custom data points (such as your firm's own asset class lineups), the custom data point(s) must first be created from the Custom Data Management page. The investments used in model portfolios should also be mapped to these custom data points.

For example, a policy could be created only at the Morningstar Category level. If you don't intend to conduct total portfolio attribution at the Global Broad Category Group level or otherwise use that asset classification for comparison purposes, then this asset class grouping does not need to be created as a policy level.

The overall steps to creating an investment policy are as follows:

1. Create an investment policy and select the Level 1 (in this case, Global Category) asset classes and proxies.
 - ☞ Note: When creating a policy with only one level, go to [step 4](#).
2. Add the Level 2 (in this case, Morningstar Category) asset class.
3. Select the Level 2 sub-asset classes and proxies.
4. Set the weights for the Level 2 asset classes. (These will automatically roll up to the Level 1 grouping.)
5. Save the investment policy.

- ☞ Note: You can also create a third level in an investment policy.

What is involved in creating an investment policy?

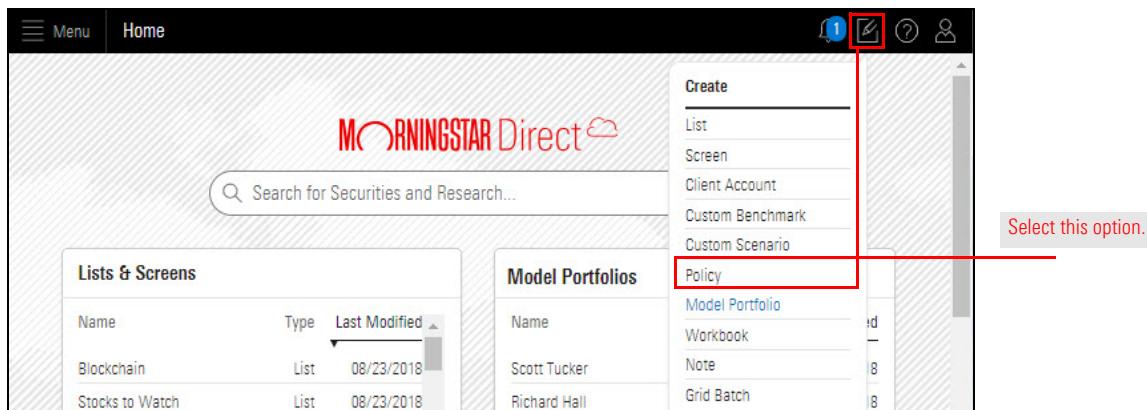
In this exercise, you will create an investment policy with four Level 1 asset classes and their proxies, as shown in the following table:

Level 1 Asset Class: Global Broad Category Group	Proxy
Alternative	ICE BofAML US High Yield TR USD
Equity	S&P 500 TR USD
Fixed Income	BBgBarc Aggregate Bond Treasury TR
Money Market	BBgBarc US Treasury Bill 1-3 Mon TR USD

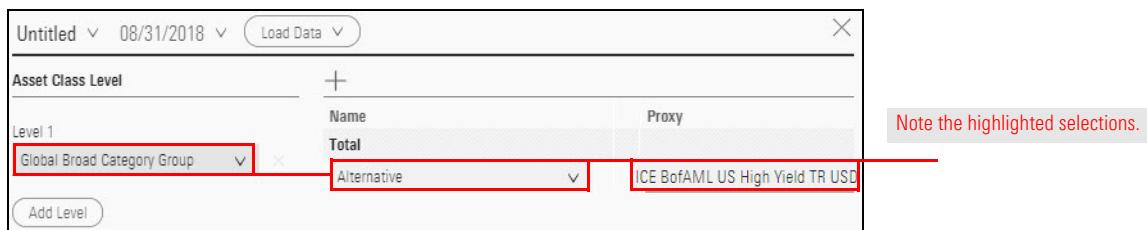
Exercise 11: Create an investment policy and its Level 1 asset classes and proxies

Do the following:

1. In the header, click the **Create** icon, then select **Policy**. The Policy Editor window opens.



2. In the Asset Class Level area, from the **Level 1** drop-down field, select **Global Broad Category Group**.
3. From the **Name** drop-down field, select **Alternative**.
4. In the Proxy column **Search** field, enter **ICE BofAML US High Yield TR USD** and select it from the search results.



5. Click the **Add Asset Class** icon. A new row appears.
6. From the **Name** drop-down field, select **Equity**.
7. In the Proxy column **Search** field, enter **S&P 500 TR USD** and select it from the search results.



The screenshot shows the 'Asset Class Level' interface. At the top, there are date fields 'Untitled' and '08/31/2018' with a 'Load Data' button. A red box highlights the 'Add Asset Class' icon (a plus sign) in the top right of the main table area. The table has columns for 'Name' and 'Proxy'. The first row is 'Total' with 'ICE BofAML US High Yield TR' as the proxy. A red box highlights the 'Name' dropdown for the second row, which is 'Equity'. Another red box highlights the 'Proxy' dropdown, which shows 'S&P 500 TR USD'. A red box also highlights the 'Search' field in the 'Proxy' column. A red box highlights the 'Click here to add an asset class.' button in the top right corner of the table area.

8. **Continue adding asset classes and their proxies**, as described in this table:

Asset Class	Proxy
Fixed Income	BBgBarc Aggregate Bond Treasury TR
Money Market	BBgBarc US Treasury Bill 1-3 Mon TR USD



The screenshot shows the 'Asset Class Level' interface with the completed list of asset classes and their proxies. The table structure is identical to the one in the table above. The rows are: 'Total' (Proxy: ICE BofAML US High Yield TR), 'Equity' (Proxy: S&P 500 TR USD), 'Fixed Income' (Proxy: BBgBarc Aggregate Bond Treasury TR), and 'Money Market' (Proxy: BBgBarc US Treasury Bill 1-3 Mon TR USD). A red box highlights the 'Name' and 'Proxy' columns of the table. A red box highlights the 'The Name and Proxy columns should look like this.' text in a grey box to the right of the table.

Now that you have created the Level 1 asset classes and their proxies, you can create the Level 2 asset classes. Do the following:

1. In the Asset Class Level area, click **Add Level**. The Level 2 drop-down field appears.

Asset Class Level		+	
Level 1	Name	Proxy	
Global Broad Category Group	Total	ICE BofAML US High Yield TR	
	Alternative	S&P 500 TR USD	
	Equity	BBgBarc Aggregate Bond Treas	
	Fixed Income	BBgBarc US Treasury Bill 1-3 M	
	Money Market		

2. From the **Level 2** drop-down field, select **Morningstar Category**.

In the list to the right, the Level 1 asset classes (Name column) and proxies (Proxy column) are displayed. Each Level 1 shows a row in which you will create its Level 2 asset classes (sub-asset classes).

Asset Class Level		+	
Level 1	Name	Proxy	
Global Broad Category Group	Total	ICE BofAML US High Yield TR	
	Alternative	S&P 500 TR USD	
	Equity	Select a Proxy	
	Fixed Income	BBgBarc Aggregate Bond Treas	
	Money Market	BBgBarc US Treasury Bill 1-3 M	

To create the Level 2 asset classes and proxies, do the following:

1. In the new row beneath Alternative, the empty field can be used as a Search field. Click the empty **Select an Asset Class** field and type **United States Long-Short Credit**. Select it from the search results.
2. In the **Select a Proxy** field, search for and select **Morningstar Diversd Alt TR USD**.

Name	Proxy
Total	
Alternative	ICE BofAML US High Yield TR USD
United States Long-Short Credit	Morningstar Diversd Alt TR USD
Equity	S&P 500 TR USD
Select an Asset Class	Select a Proxy
Fixed Income	BBgBarc Aggregate Bond Treasury TR

3. Under Equity, in the **Select an Asset Class** field, search for and select **United States Large Growth**.
4. In the **Select a Proxy** field, search for and select **Russell 1000 Growth TR USD**.

Name	Proxy
Total	
Alternative	ICE BofAML US High Yield TR USD
United States Long-Short Credit	Morningstar Diversd Alt TR USD
Equity	S&P 500 TR USD
United States Large Growth	Russell 1000 Growth TR USD
Fixed Income	BBgBarc Aggregate Bond Treasury TR
Select an Asset Class	Select a Proxy
Money Market	BBgBarc US Treasury Bill 1-3 Mon TR ...
Select an Asset Class	Select a Proxy

5. To add another asset class under Equity, click the **Add Asset Class** icon, then from the **Add Asset Class** menu, select **Level 2 > Equity**. A new row appears under Equity.

Level 2

- Alternative
- Equity**
- Fixed Income
- Money Market

6. In the new row, search for and select **United States Large Growth**.
7. **Repeat step 6 four times** so Equity shows four rows to be filled in under United States Large Growth.

Asset Class Level																													
Level 1	Global Broad Category Group																												
Level 2	Morningstar Category																												
Add Level																													
<table border="1"> <thead> <tr> <th>Name</th> <th>Proxy</th> </tr> </thead> <tbody> <tr> <td>Total</td> <td></td> </tr> <tr> <td>Alternative</td> <td>ICE BofAML US High Yield TR</td> </tr> <tr> <td>United States Long-Short Credit</td> <td>Morningstar Diversd Alt TR USD</td> </tr> <tr> <td>Equity</td> <td>S&P 500 TR USD</td> </tr> <tr> <td>United States Large Growth</td> <td>Russell 1000 Growth TR USD</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> <tr> <td>Fixed Income</td> <td>BBgBarc Aggregate Bond Treas</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> <tr> <td>Money Market</td> <td>BBgBarc US Treasury Bill 1-3 M</td> </tr> <tr> <td>Select an Asset Class</td> <td>Select a Proxy</td> </tr> </tbody> </table>		Name	Proxy	Total		Alternative	ICE BofAML US High Yield TR	United States Long-Short Credit	Morningstar Diversd Alt TR USD	Equity	S&P 500 TR USD	United States Large Growth	Russell 1000 Growth TR USD	Select an Asset Class	Select a Proxy	Select an Asset Class	Select a Proxy	Select an Asset Class	Select a Proxy	Select an Asset Class	Select a Proxy	Fixed Income	BBgBarc Aggregate Bond Treas	Select an Asset Class	Select a Proxy	Money Market	BBgBarc US Treasury Bill 1-3 M	Select an Asset Class	Select a Proxy
Name	Proxy																												
Total																													
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Equity	S&P 500 TR USD																												
United States Large Growth	Russell 1000 Growth TR USD																												
Select an Asset Class	Select a Proxy																												
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Select an Asset Class	Select a Proxy																												
Fixed Income	BBgBarc Aggregate Bond Treas																												
Select an Asset Class	Select a Proxy																												
Money Market	BBgBarc US Treasury Bill 1-3 M																												
Select an Asset Class	Select a Proxy																												

8. In the new rows, search for and select **asset classes** and their **proxies**, as shown in this table:

Asset Class	Proxy
United States Large Value	Russell 1000 Value TR USD
United States Small Growth	Russell 2000 Growth TR USD
United States Small Value	Russell 2000 Value TR USD
United States Foreign Large Blend	MSCI ACWI ex US Momentum NR USD

▼ Equity	▼	S&P 500 TR USD
United States Large Growth	▼	Russell 1000 Growth TR USD
United States Large Value	▼	Russell 1000 Value TR USD
United States Small Growth	▼	Russell 2000 Growth TR USD
United States Small Value	▼	Russell 2000 Value TR USD
United States Foreign Large Blend	▼	MSCI ACWI ex US Momentum NR USD

The Equity Name and Proxy columns should look like this.

9. In the Fixed Income column **Search** field, search for and select **United States High Yield Bond**.
10. In the **Select a Proxy** field, search for and select **BBgBarc Aggregate Bond Treasury TR**.

▼ Fixed Income	▼	BBgBarc Aggregate Bond Treasury TR
United States High Yield Bond	▼	BBgBarc Aggregate Bond Treasury TR

11. To add another sub-asset class under Fixed Income, click the **Add Asset Class** icon, then from the **Add Asset Class** menu, select **Level 2 > Fixed Income**.

Untitled	08/31/2018	Load Data
Asset Class Level		
Level 1	Add Asset Class	+ (highlighted)
Global Broad Category Group	Level 1	Level 2 (highlighted)
Level 2		>

Level 2

- Alternative
- Equity
- Fixed Income (highlighted)
- Money Market

12. Under Fixed Income, **repeat step 11** to add **one more asset class** (row).
13. In the unassigned Fixed Income rows, search for and select **asset classes** and their **proxies**, as shown in this table:

Asset Class	Proxy
United States Intermediate-Term Bond	BBgBarc Aggregate Bond Treasury TR
United States Muni National Interim	BBgBarc US Municipal 1-15 Yr TR USD

▼ Fixed Income	▼	BBgBarc Aggregate Bond Treasury TR
United States High Yield Bond	▼	BBgBarc Aggregate Bond Treasury TR
United States Intermediate-Term Bond	▼	BBgBarc Aggregate Bond Treasury TR
United States Muni National Interim	▼	BBgBarc Municipal 1-15 Yr TR USD

14. In the Money Market column **Select an Asset Class** field, search for and select **United States Prime Money Market**.
15. In the Proxy column **Select a Proxy** field, search for and select **BBgBarc US Treasury Bill 1-3 Mon TR USD**.

+		Proxy
Name		
Total		
▼ Alternative	▼	ICE BofAML US High Yield TR USD ▼
United States Long-Short Credit	▼	Morningstar Diversd Alt TR USD ▼
▼ Equity	▼	S&P 500 TR USD ▼
United States Large Growth	▼	Russell 1000 TR USD ▼
United States Large Value	▼	Russell 1000 TR USD ▼
United States Small Growth	▼	Russell 2000 TR USD ▼
United States Small Value	▼	Russell 2000 TR USD ▼
United States Foreign Large Blend	▼	MSCI ACWI ex US Momentum NR USD ▼
▼ Fixed Income	▼	BBgBarc Aggregate Bond Treasury... ▼
United States Long-Short Equity	▼	S&P 500 TR USD ▼
United States Intermediate-Ter...	▼	BBgBarc Municipal 1-15 Yr TR USD ▼
United States Muni National Int...	▼	BBgBarc Municipal 1-15 Yr TR USD ▼
▼ Money Market	▼	BBgBarc US Treasury Bill 1-3 Mon... ▼
United States Prime Money Ma...	▼	BBgBarc US Treasury Bill 1-3 Mon T... ▼

The Money Market Name and Proxy columns should look like this.

Finally, assign a weight to each of the Level 2 asset classes. The weights must total 100.

☞ Note: You don't need to enter weights for Level 1 because it automatically equals the sum of its Level 2 asset classes.

To assign the weights, do the following:

1. If the Weight % column is not visible at the right side of the window, do one of the following:

► **zoom out**

☞ Note: In Chrome or Internet Explorer, zoom out by pressing <CTRL>+<-> one or more times until you can see the Weight % column at the right.

► **widen your browser window**, or
► **scroll right**.

2. In the **Weight %** column (to the right of the Proxy column), enter the **weight** of each Morningstar Category level (Level 2) as shown in the following table:

☞ Note: The broad category weights update as you add weights to the Level 2 asset classes.

Exercise 14: Assign weights to the Level 2 asset classes

Level 1 Asset Class: Global Broad Category Group	Level 2 Asset Class: Morningstar Category	Proxy	Weight
Alternative	United States Long-Short Credit	Morningstar Diversd Alt TR USD	10
Equity	United States Large Growth	Russell 1000 Growth TR USD	17.5
	United States Large Value	Russell 1000 Value TR USD	17.5
	United States Small Growth	Russell 2000 Growth TR USD	5
	United States Small Value	Russell 2000 Value TR USD	5
	United States Foreign Large Blend	MSCI ACWI ex US Momentum NR USD	20
Fixed Income	United States High-Yield Bond	BBgBarc Aggregate Bond Treasury TR USD	10
	United States Intermediate-Term Bond	BBgBarc Aggregate Bond Treasury TR USD	5
	United States Muni National Interm	BBgBarc Municipal 1-15 Yr TR USD	5
Money Market	United States Prime Money Market	BBgBarc US Treasury Bill 1-3 Mon TR USD	5

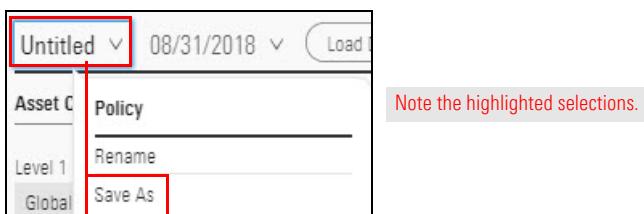
Name	Proxy	Weight %
Total		100.00
▼ Alternative	▼ ICE BofAML US High Yield TR USD	10.00
United States Long-Short Credit	▼ Morningstar Diversd Alt TR USD	10.00
▼ Equity	▼ S&P 500 TR USD	65.00
United States Large Growth	▼ Russell 1000 Growth TR USD	17.50
United States Large Value	▼ Russell 1000 Value TR USD	17.50
United States Small Growth	▼ Russell 2000 Growth TR USD	5.00
United States Small Value	▼ Russell 2000 Value TR USD	5.00
United States Foreign Large Blend	▼ MSCI ACWI ex US Momentum NR USD	20.00
▼ Fixed Income	▼ BBgBarc Aggregate Bond Treasury TR	20.00
United States High Yield Bond	▼ BBgBarc Aggregate Bond Treasury TR	10.00
United States Intermediate-Term Bond	▼ BBgBarc Aggregate Bond Treasury TR	5.00
United States Muni National Interim	▼ BBgBarc Municipal 1-15 Yr TR USD	5.00
▼ Money Market	▼ BBgBarc US Treasury Bill 1-3 Mon TR ...	5.00
United States Prime Money Market	▼ BBgBarc Municipal 1-15 Yr TR USD	5.00

The Weight % column should look like this.

To save your policy, do the following:

Exercise 15: Save an investment policy

- From the top-left corner of the window, click the **Untitled** drop-down field, then select **Save As**.



- In the text field, type **Sample Investment Policy**, then click **Save**.



- An alert opens to tell you that the policy has been saved successfully. Click **Close**.
- In the upper-right corner of the Policy Editor window, click the **X** to close it.

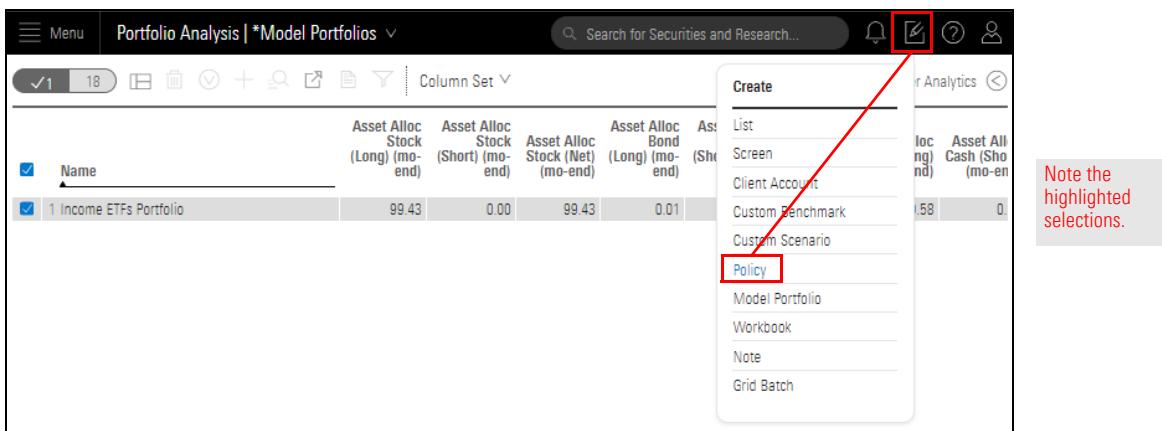
☞ Note: Now that this policy is saved, you can easily create other policies by using the Save As command to give this policy a new name, then change the weights, proxies, categories, or a combination of all three.

Another way to create an investment policy is to create it from a custom benchmark. In this exercise, you will use the Aggressive custom benchmark, which you created in [Exercise 5 on page 22](#).

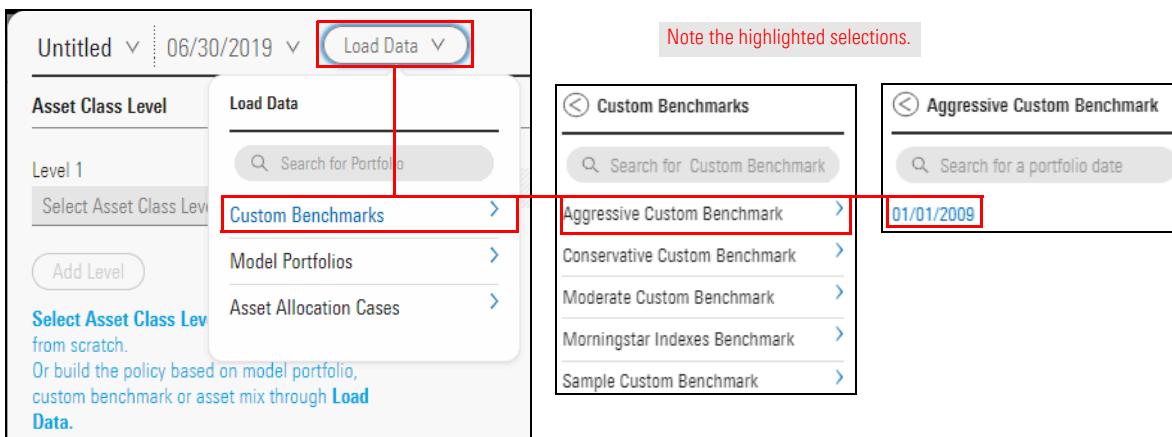
Exercise 16: Create an investment policy from a custom benchmark

Do the following:

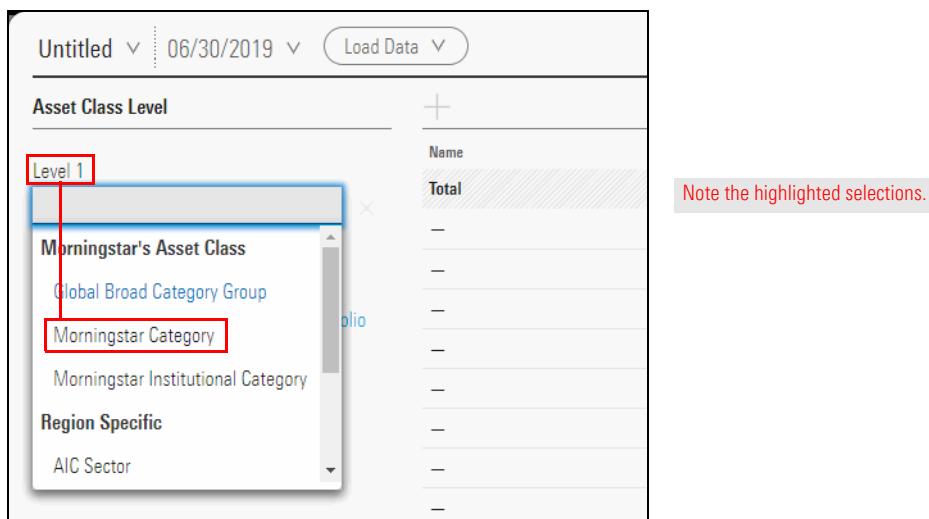
1. From the header, select **Create > Policy**. The policy window opens.



2. Click **Load Data**, then select **Custom Benchmarks > Aggressive Custom Benchmark > 01/01/2009**.



3. Click **Level 1**, then from the menu, select **Morningstar Category**.

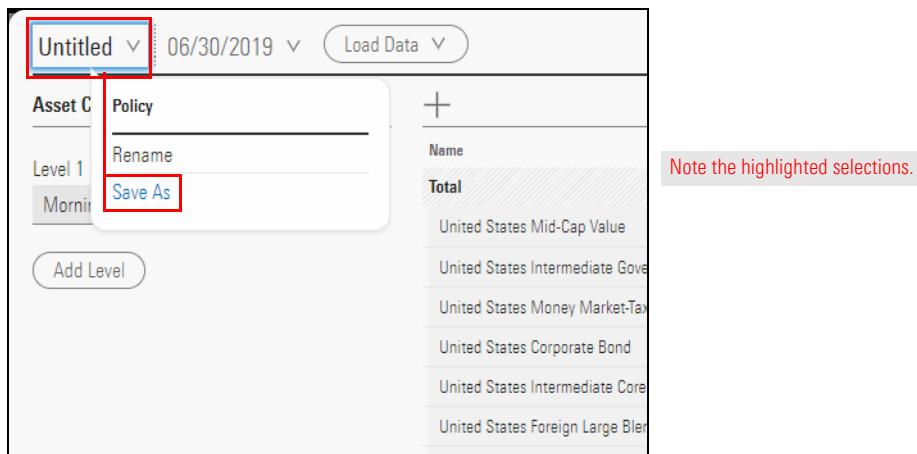


4. In the **Name** column, from the **Select an Asset Class** menus, make a **selection** according to the following table:

☞ Note: As you make each selection, that row moves into place in the list, so the next Select an Asset Class menu is at the top of the list.

For this Proxy...	Select this Morningstar Category...
Morningstar US Core Bd TR USD	United States Intermediate Core Bond
Morningstar US Corp Bd TR USD	United States Corporate Bond
Morningstar US Treasury TR USD	United States Money Market-Taxable
Morningstar US Inter Gov Bd TR USD	United States Intermediate Government
Morningstar US Mid Val TR USD	United States Mid-Cap Value
Morningstar Gbl Mkts xUS GR USD	United States Foreign Large Blend
Morningstar US Small Cap TR USD	United States Small Blend
Morningstar US Large Cap TR USD	United States Large Blend
Morningstar EM GR USD	United States Diversified Emerging Mkts

5. In the upper-left corner of the window, click **Untitled**. From the **Policy** menu, select **Save As**.



6. Name the policy **Aggressive Policy**, then click **Save**.
7. When the notification opens, click **Close**.
8. In the upper-right corner of the window, click to **X** to close it.

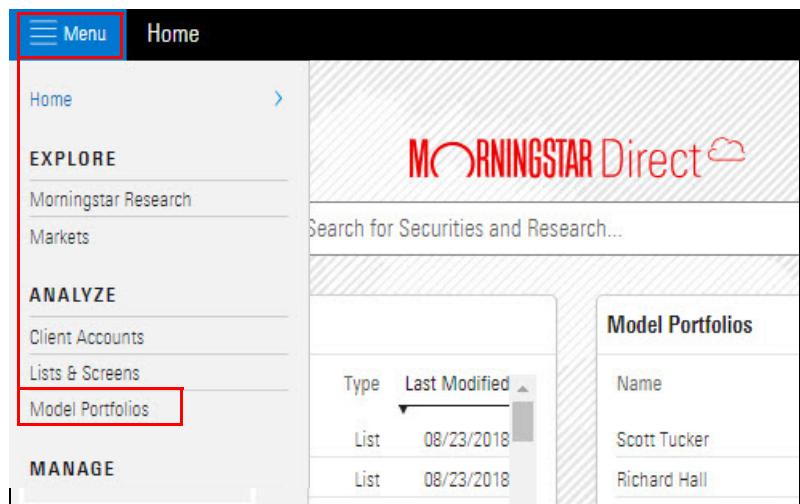
As you know, an investment policy describes the process to be used by a wealth manager in making investment decisions. The wealth manager should periodically review a model portfolio's policy and monitor how well the portfolio is meeting its objectives. Applying a policy to a model portfolio makes it easy to use in such a review.

In this exercise, you will attach the Sample Investment Policy to the Income ETFs Portfolio.

 Note: A policy can be attached to multiple model portfolios.

To attach an investment policy to a model portfolio, do the following:

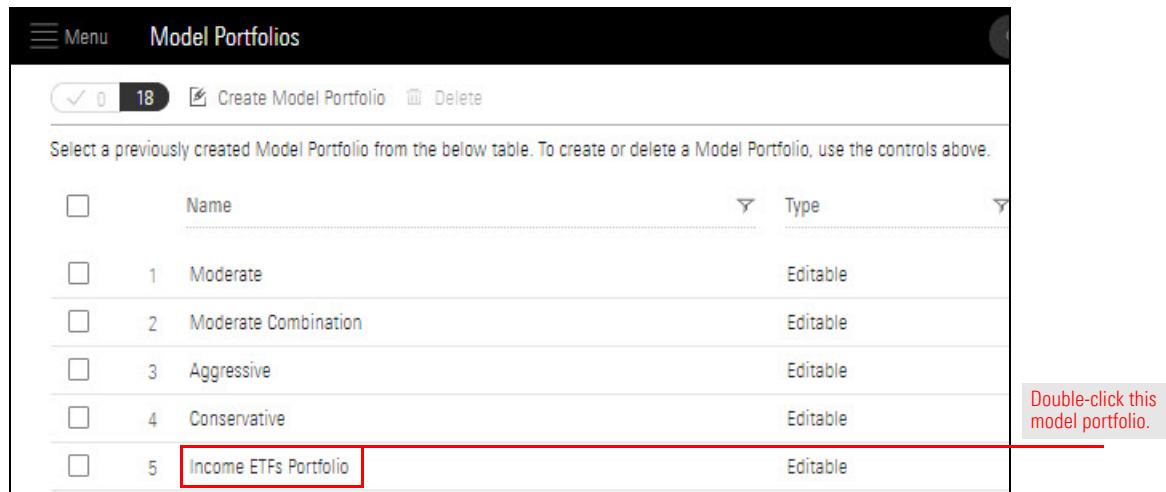
1. From the **Menu**, select **Model Portfolios**. The Model Portfolios page opens.



Note the highlighted selections.

The screenshot shows the Morningstar Direct interface. The left sidebar has a 'Menu' button with three horizontal lines. The 'Model Portfolios' option under the 'ANALYZE' section is highlighted with a red box. The main content area features the Morningstar Direct logo and a search bar. To the right, a 'Model Portfolios' section is displayed with a table showing two entries: 'Scott Tucker' and 'Richard Hall', both listed on 08/23/2018.

2. On the Model Portfolios page, **double-click Income ETFs Portfolio**.



Double-click this model portfolio.

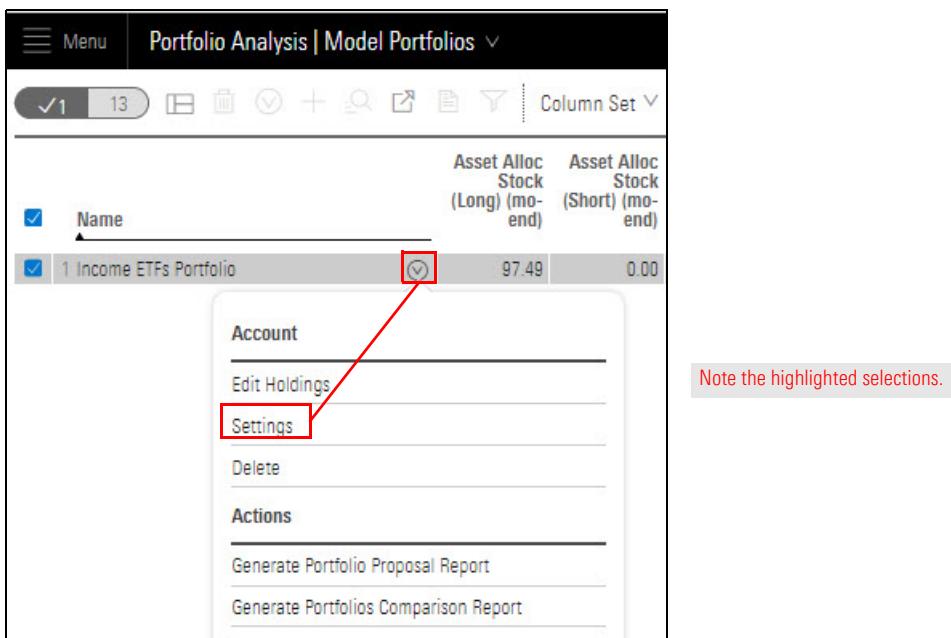
The screenshot shows the 'Model Portfolios' page. At the top, there are buttons for 'Create Model Portfolio' and 'Delete'. Below is a table with columns for 'Name' and 'Type'. The table lists five portfolios: 'Moderate' (Editable), 'Moderate Combination' (Editable), 'Aggressive' (Editable), 'Conservative' (Editable), and 'Income ETFs Portfolio' (Editable). The 'Income ETFs Portfolio' row is highlighted with a red box, and a callout box with the text 'Double-click this model portfolio.' points to it.

3. In the “Select a workbook to view the model portfolio” dialog box, select **Model Portfolios**. The Model Portfolios workbook opens, displaying the Grid.

Select a workbook to view the model portfolio:				
	Type	Owner	Modified	Created
Client Accounts Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Custom Benchmarks Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Model Portfolios Read Only	Portfolios	Morningstar	01/27/2017	01/26/2017
Client Accounts & Proposals	Portfolios	Me	10/19/2018	10/19/2018
Client Accounts with Sustainability	Portfolios	Me	12/11/2018	12/11/2018
Client Accounts-Proposals	Portfolios	Me	02/13/2019	02/13/2019
My Custom Workbook	Portfolios	Me	08/01/2019	08/01/2019
PChris Portfolio	Portfolios	Me	06/14/2017	06/13/2017

Select this option.

4. Hover the cursor over the **Income ETFs Portfolio** row. The Actions icon appears. Click the **Actions** icon and select **Settings**. The Model Portfolio Settings window opens.



Portfolio Analysis | Model Portfolios

Name	Asset Alloc Stock (Long) (mo-end)	Asset Alloc Stock (Short) (mo-end)
1 Income ETFs Portfolio	97.49	0.00

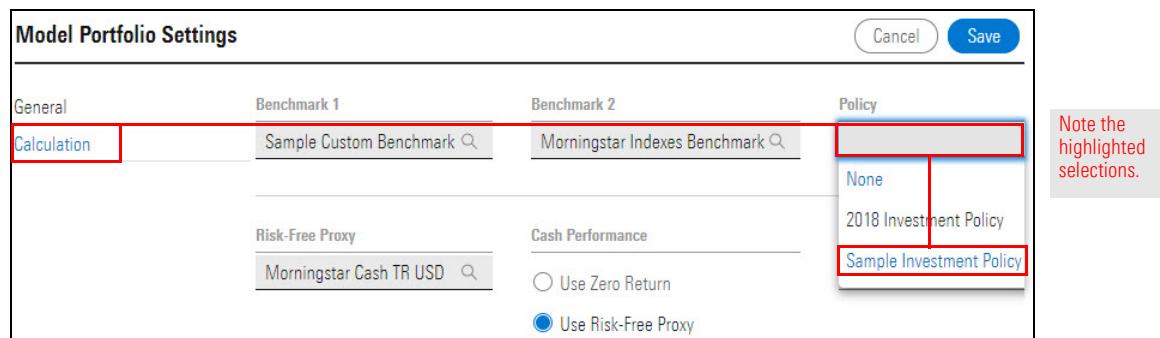
Account

Settings

Actions

Note the highlighted selections.

5. On the left side of the window, select **Calculation**.
6. On the right side of the window, from the **Policy** menu, select **Sample Investment Policy**.



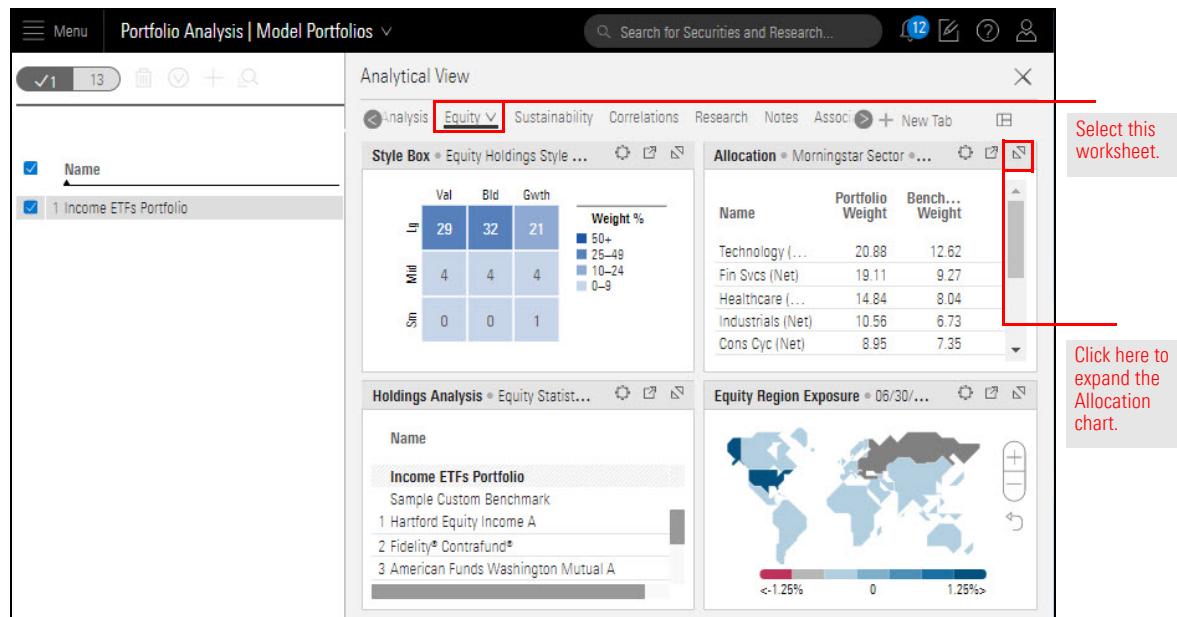
7. In the upper-right corner of the window, click **Save**. The window closes.

If a model portfolio is edited, the portfolio's correlation to the policy could change. Comparing the portfolio to the policy might reveal disparities to be addressed.

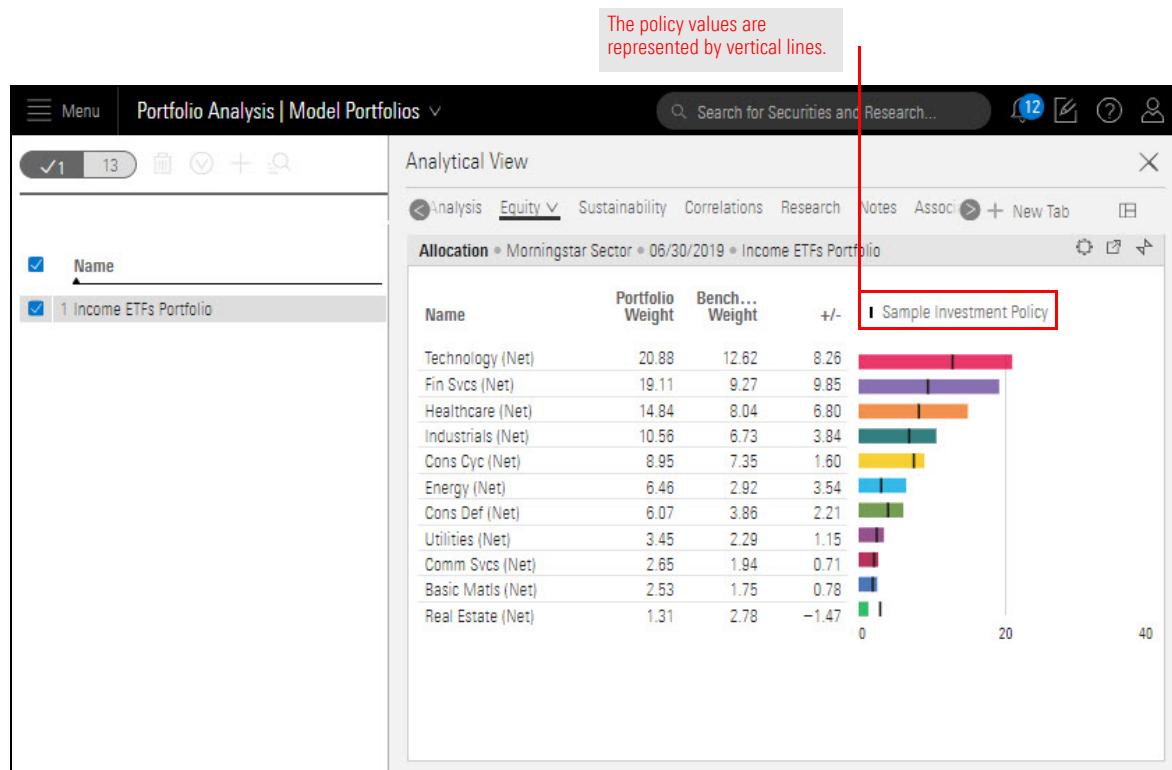
In this exercise, you will examine the allocations of the portfolio against those of the policy.

Do the following:

1. In the Model Portfolios workbook, click the name **Income ETFs Portfolio**, select the **Equity** tab.
2. **Expand** the Allocation chart.



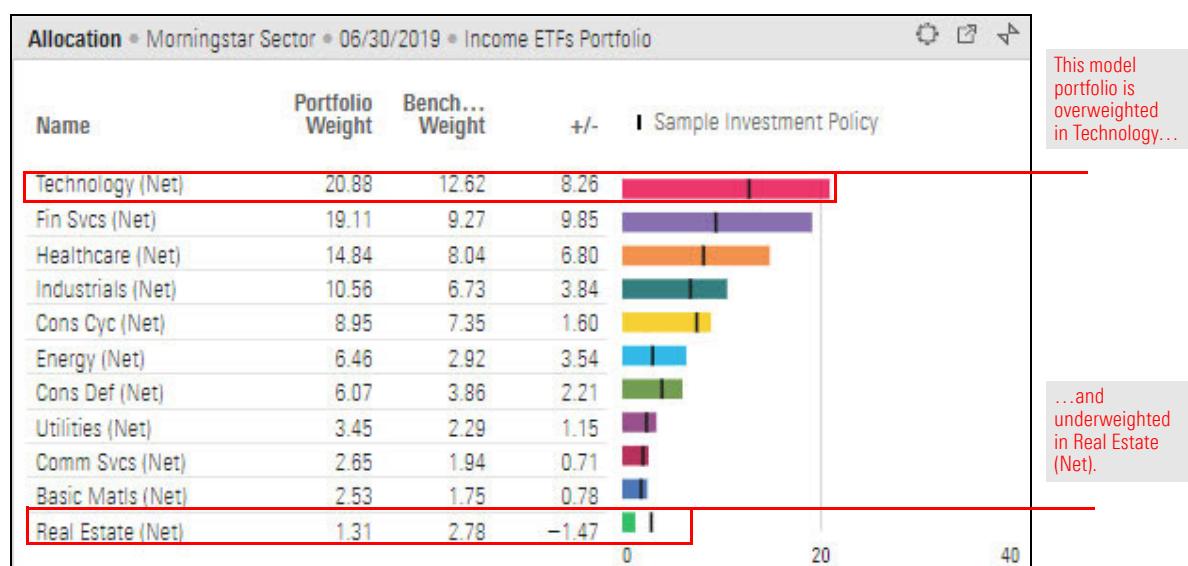
By default, the chart shows the Level 1 asset class allocations of the policy attached to the portfolio.



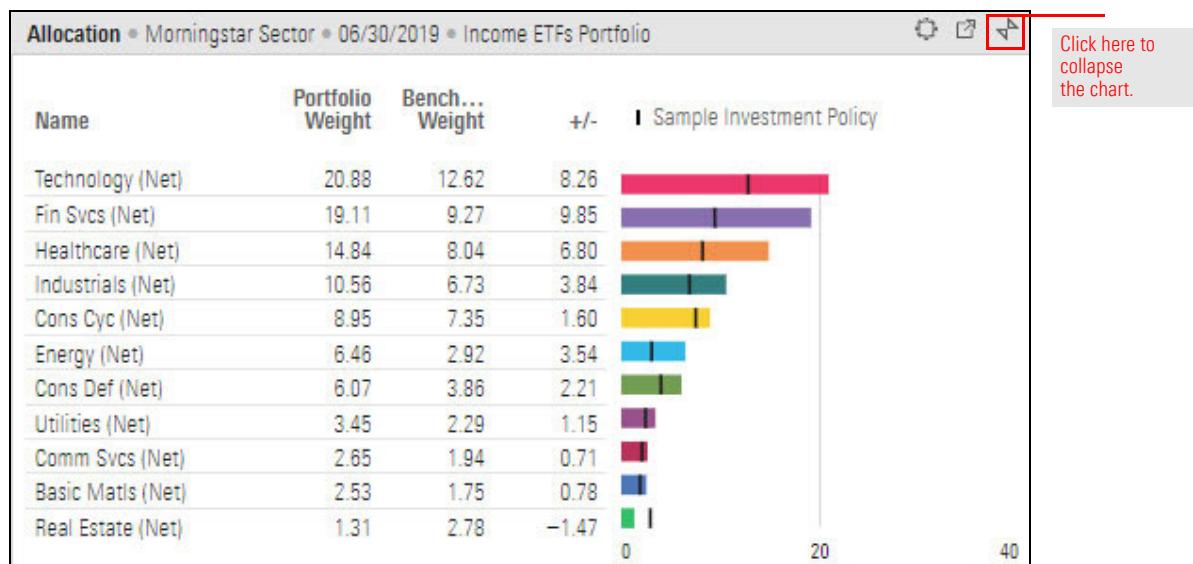
3. **Examine** the results.

☞ Note: Your results will differ from those shown in the screenshot.

In your results, when comparing the model portfolio and the policy, in which sector(s) is the portfolio overweighted? In which is it underweighted?



4. **Collapse** the chart.



The policy's groupings (or asset classes) provide additional lenses to examine a model portfolio. In the Holdings Analysis table, you cannot directly group holdings to match the policy's groupings, but you can recreate them.

The supported groupings in the Holdings Analysis table are as follows:

- ▶ Global Broad Category
- ▶ Morningstar Category, and
- ▶ Morningstar Institutional Category.

The Holdings Analysis table can also reflect groupings based on custom data points created by you or your firm. The table supports up to five levels of grouping.

In this exercise, you will recreate an investment policy's groupings in the Holdings Analysis table.

Note: To refresh your memory of the structure of the investment policy, review [Exercise 14 on page 50](#).

Exercise 19: Use groupings to replicate a policy's asset classes

Do the following:

1. In the **Model Portfolio** workbook, make sure the **Income ETFs Portfolio** is selected.
2. Select the **Holdings** tab.

In the Holdings Analysis table, note that the Sample Custom Benchmark is displayed.

Analytical View

Holdings Analysis • Holdings Summary • USD • 07/31/2019 • Income ETFs Portfolio

Name	Ticker	Weight	Morning... Analyst Rating	Return (1M mo-er)
Income ETFs Portfolio	—	100.00	—	0.
Sample Custom Benchmark	—	—	—	0.
1 Financial Select Sector SPDR® ETF	XLF	25.00	—	2.
2 Real Estate Select Sector SPDR®	XLRE	15.00	—	1.
3 Vanguard FTSE Developed Markets ETF	VEA	15.00	Silver	-2.
4 Vanguard Growth Index Admiral	VIGAX	15.00	Silver	2.
5 Invesco S&P Emerging Markets Low Vol ETF	EELV	15.00	—	-3.
6 Schwab US Dividend Equity ETF™	SCHD	15.00	Silver	1.

3. Click the **Component Settings** icon, then select **Grouping > Global Broad Category**.

The Grouping menu reappears.

Analytical View

Holdings Analysis • Holdings Summary • USD • 07/31/2019 • Income ETFs Portfolio

Name	Ticker	Weight	Morning... Analyst Rating	Return (1M mo-er)
Income ETFs Portfolio	—	100.00	—	0.
Sample Investment Policy	—	—	—	—
1 Financial Select Sector SPDR® ETF	XLF	25.00	—	2.
2 Real Estate Select Sector SPDR®	XLRE	15.00	—	1.
3 Vanguard FTSE Developed Markets ETF	VEA	15.00	Silver	-2.
4 Vanguard Growth Index Admiral	VIGAX	15.00	Silver	2.
5 Invesco S&P Emerging Markets Low Vol ETF	EELV	15.00	—	-3.
6 Schwab US Dividend Equity ETF™	SCHD	15.00	Silver	1.

Component Settings

Portfolio Date: 05/31/2019

Column Set: Holdings Summary

Grouping: **No Grouping**

Benchmark: Sample Custom Benchmark

Currency: US Dollar

Grouping

Global Broad Category

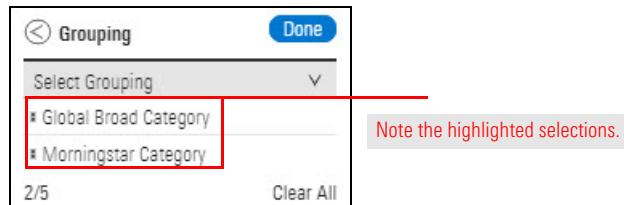
Morningstar Category

Morningstar Institutional Category

4. Click **Select Grouping** again, then select **Morningstar Category** (the policy's Level 2 Asset Class).



The Grouping menu reopens. The selected groupings are listed in the order in which you selected them.



5. Click **Done**.
 6. Click the **Component Settings** icon to close the menu.
 The model portfolio's holdings are now displayed according to the assigned groupings (matching the groupings in the policy).
 7. **Scroll right** to see more of the Holdings Analysis table.

The image shows a screenshot of the 'Analytical View' interface, specifically the 'Holdings Analysis' section. The table lists the holdings of the 'Income ETFs Portfolio' under the 'Sample Investment Policy'. The columns include Name, Ticker, Weight, Morningstar Analyst Rating, and Return. The table is organized by category, with sections for Equity, Real Estate, Financial, Large Value, and Large Growth. A note on the right side of the screen states: 'In Equity holdings (the Global Broad Category), the model has one fund in each of the Morningstar Categories.' A red box highlights the last row of the table, which corresponds to the 'Vanguard Growth Index Admiral' fund.

Name	Ticker	Weight	Morningstar Analyst Rating	Return
Income ETFs Portfolio	—	100.00	—	—
Sample Investment Policy	—	—	—	—
▼ Equity	—	—	—	—
▼ Diversified Emerging Mkts	—	—	—	—
1 Invesco S&P Emerging Markets Low Vol ...	EELV	15.00	—	—
▼ Foreign Large Blend	—	—	—	—
2 Vanguard FTSE Developed Markets ETF	VEA	15.00	Silver	—
▼ Real Estate	—	—	—	—
3 Real Estate Select Sector SPDR®	XLRE	15.00	—	—
▼ Financial	—	—	—	—
4 Financial Select Sector SPDR® ETF	XLF	25.00	—	—
▼ Large Value	—	—	—	—
5 Schwab US Dividend Equity ETF™	SCHD	15.00	Silver	—
▼ Large Growth	—	—	—	—
6 Vanguard Growth Index Admiral	VIGAX	15.00	Silver	—

Editing a Model Portfolio

Suppose you are reviewing the Moderate model portfolio and you discover that, due to changes in the market and economic conditions in the US and abroad, changes need to be made to the weightings in the model portfolio. How can a model portfolio be edited to add, remove, or change holdings, and to add an additional date to the same model portfolio?

This section covers the following:

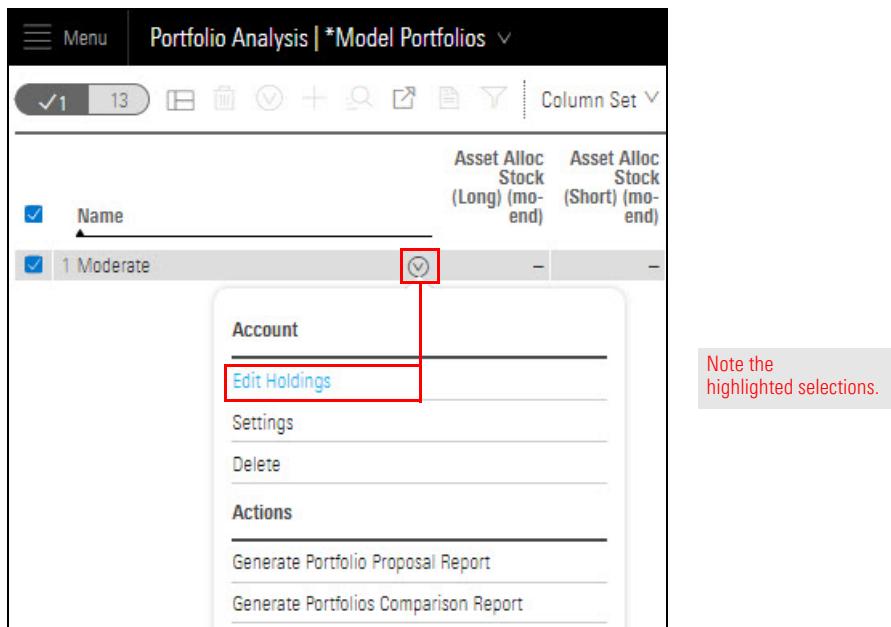
- ▶ [Exercise 20: Create a new portfolio date \(page 63\)](#)
- ▶ [Exercise 21: Remove a holding from a model portfolio \(page 65\)](#)
- ▶ [Exercise 22: Add a holding to a model portfolio \(page 66\)](#)
- ▶ [Exercise 23: Change a model portfolio's identifier \(page 68\)](#)
- ▶ [Exercise 24: Use an identifier to import data to an existing model portfolio \(page 69\)](#)
- ▶ [What is embedding and how is it used in a model portfolio? \(page 75\)](#)
- ▶ [Exercise 25: Import data for multiple model portfolios \(page 75\)](#)
- ▶ [Exercise 26: Build a model portfolio based on other model portfolios \(page 78\)](#)
- ▶ [What happens when I delete a child portfolio object \(or one of its holdings\)? \(page 80\)](#)
- ▶ [Exercise 27: Delete a model portfolio \(page 80\)](#)

Overview

You might need to periodically revise the holdings or their weights in a model portfolio. Before making such a change to the model portfolio, be sure to create a new portfolio date. This ensures that you can look back at the previous date's holdings and weights.

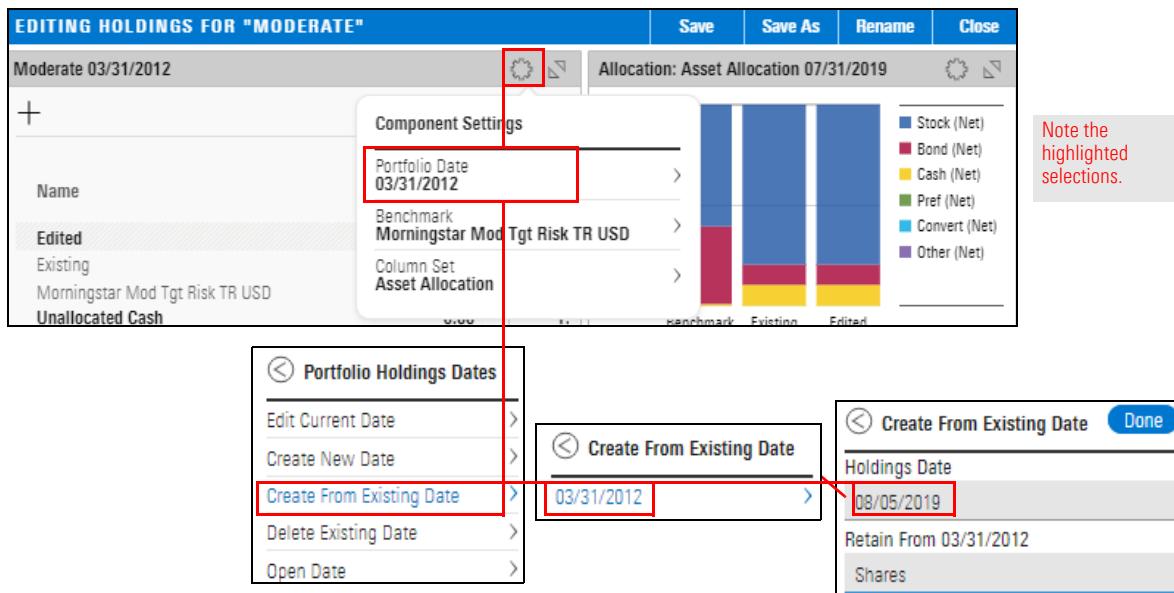
Do the following:

1. In the **Model Portfolios** workbook Grid, **hover the cursor** over **Moderate**. The Actions icon appears.
2. Click the **Actions** icon and from the menu, select **Edit Holdings**. The Editing Holdings window opens.



Exercise 20: Create a new portfolio date

3. In the list of holdings, click the **Component Settings** icon, then select **Portfolio Date > Create From Existing Date**. A new menu opens.
4. **Select the date** you want to use as the basis of the new date. In this case, only one date is available (03/31/2012). A new menu opens.
5. In the **Holdings Date** field, **type yesterday's date**.
 - ☞ Note: In the Retain From 03/31/2012 field, leave Shares selected. The other option for this field is Weights.[



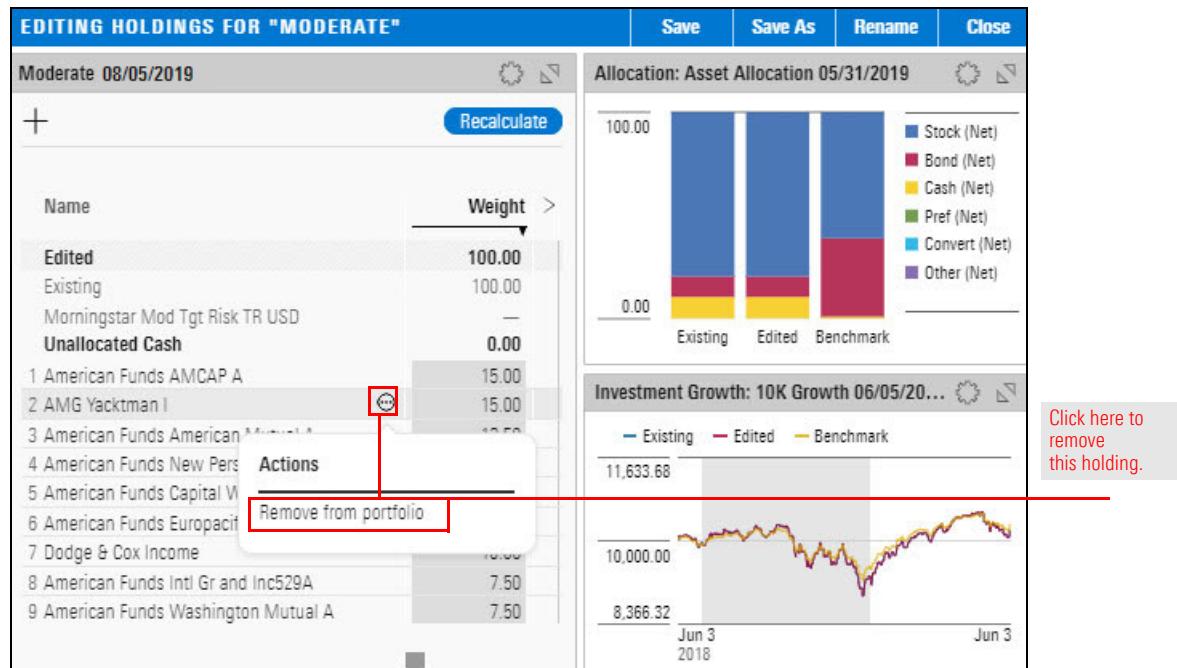
6. Click **Done**.
7. In the upper-right corner of the Editing Holdings window, click **Save**. Don't close the Editing Holdings window.

In this exercise, you will remove a holding from the Moderate model portfolio.

The Editing Holdings window should still be open.

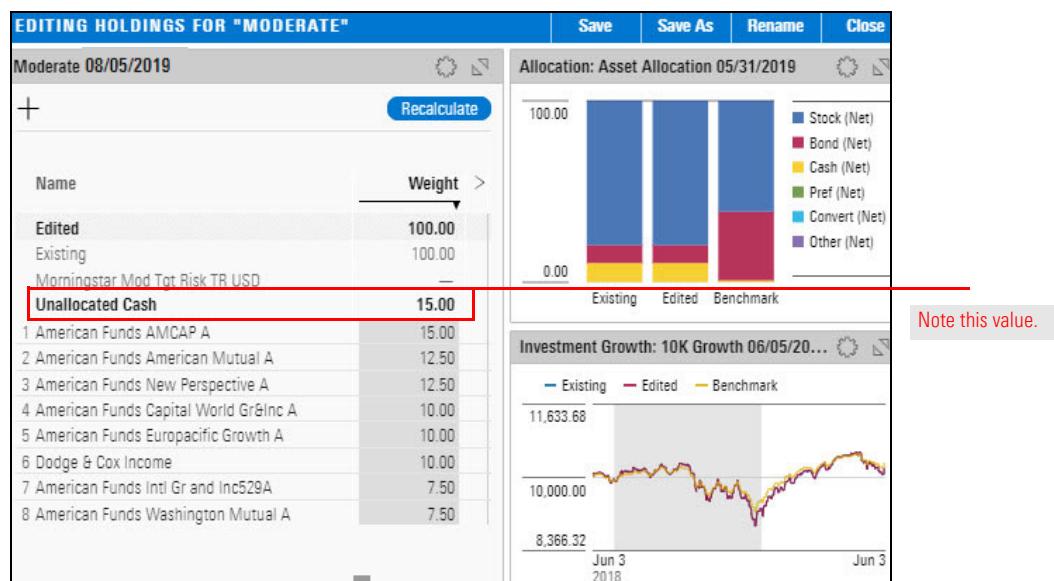
1. **Hover the cursor** over **AMG Yacktman I**. The Actions icon appears to the right of the name.
1. Click the **Actions** icon and select **Remove from portfolio**. The holding is removed from the model portfolio.

Exercise 21: Remove a holding from a model portfolio



2. In the upper-right corner of the Editing Holdings window, click **Save**. Don't close the Editing Holdings window.

Note that the weight of AMG Yacktman I (15.00) has been assigned to Unallocated Cash.



In [Exercise 21 on page 65](#), you removed AMG Yacktman I from Joe Franklin model portfolio. In this exercise, you will add iShares Core S&P 500 ETF to take its place.

The Editing Holdings window should still be open. Do the following:

1. In the upper-left corner of the Editing Holdings window, click the **Add** icon. The Add dialog box opens.

Name	Weight
Edited	100.00
Existing	100.00
Morningstar Mod Tgt Risk TR USD	—
Unallocated Cash	15.00
1 American Funds AMCAP A	15.00
2 American Funds American Mutual A	12.50
3 American Funds New Perspective A	12.50
4 American Funds Capital World Gr&Inc A	10.00
5 American Funds Europacific Growth A	10.00
6 Dodge & Cox Income	10.00
7 American Funds Intl Gr and Inc529A	7.50
8 American Funds Washington Mutual A	7.50

2. In the **Add** field, enter **IVV**. The results list displays more than one selection for iShares Core S&P 500 ETF. Select the one **traded on NYSE ARCA**. The Add dialog box opens.

Name	Identifier	Type	Exchange
iShares Core S&P 500 ETF	IVV	Exchange-Trade...	NYSE ARCA
iShares Core S&P 500 ETF	IVV	Exchange-Trade...	BOLSA MEXICANA DE VALO...
iShares Core S&P 500 ETF	IVV	Exchange-Trade...	SANTIAGO STOCK EXCHANGE

iShares Core S&P 500 ETF is now listed as a holding. Its weight displays a dash (—).

EDITING HOLDINGS FOR "MODERATE"

Moderate 08/05/2019

+

Recalculate

Name	Weight
Edited	100.00
Existing	100.00
Morningstar Mod Tgt Risk TR USD	—
Unallocated Cash	15.00
1 American Funds AMCAP A	15.00
2 American Funds American Mutual A	12.50
3 American Funds New Perspective A	12.50
4 American Funds Capital World Gr&Inc A	10.00
5 American Funds Europacific Growth A	10.00
6 Dodge & Cox Income	10.00
7 American Funds Intl Gr and Inc529A	7.50
8 American Funds Washington Mutual A	7.50
9 iShares Core S&P 500 ETF	—

The dash indicates the holding has a weight of null.

3. In the iShares Core S&P 500 ETF row, click the **dash** in the Weight column.
4. Enter **15.00** (the weight currently assigned to Unallocated Cash and previously assigned to AMG Yacktman I).

EDITING HOLDINGS FOR "MODERATE"

Moderate 08/05/2019

+

Recalculate

Name	Weight
Edited	100.00
Existing	100.00
Morningstar Mod Tgt Risk TR USD	—
Unallocated Cash	0.00
1 American Funds AMCAP A	15.00
2 American Funds American Mutual A	12.50
3 American Funds New Perspective A	12.50
4 American Funds Capital World Gr&Inc A	10.00
5 American Funds Europacific Growth A	10.00
6 Dodge & Cox Income	10.00
7 American Funds Intl Gr and Inc529A	7.50
8 American Funds Washington Mutual A	7.50
9 iShares Core S&P 500 ETF	15.00

Note the weights for Unallocated Cash and iShares Core S&P 500 ETF.

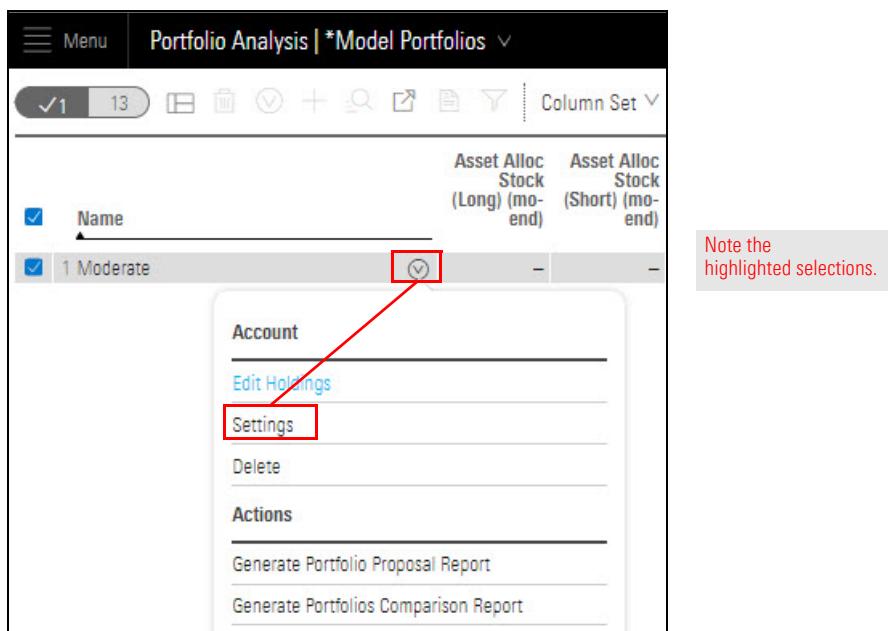
5. In the upper-right corner of the window, click **Save**. Then click **Close**.

When you create a model portfolio, a unique identifier is automatically generated as a string of letters and numbers. You can use the identifier when updating a model portfolio, but it's a good idea to first change it to meaningful text.

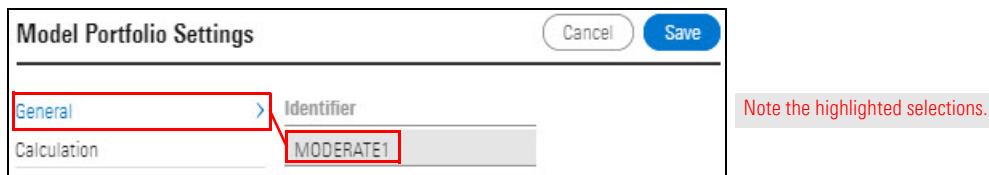
For example, suppose you need to update a model portfolio on an annual basis to reflect the date, current market conditions, and so on. You could modify each holding manually, but by using an identifier, you can make the changes in an Excel spreadsheet. When you import the spreadsheet, the identifier directs the data to the existing model portfolio with the same identifier.

To change a model portfolio's identifier, do the following:

1. In a Model Portfolios workbook, **hover the cursor** over the **Moderate** row. The Action icon appears.
2. **Click the Action icon**, then from the menu, select **Settings**. The Settings window opens.



3. The General tab should be selected. In the **Identifier** field, enter unique text. In this case, enter **MODERATE1**.



4. Click **Save**. The Settings window closes.

Now you can use the identifier when importing an updated Excel file for the model portfolio with that identifier.

Exercise 23: Change a model portfolio's identifier

In this exercise, you will import an Excel file containing updated data for the Moderate model portfolio. The updated files differs from Moderate in the following ways:

- ▶ Two funds (American Funds Growth Fund of Amer A and American Funds Ltd-Term Tx-Ex Bd A) have been added.
- ▶ One fund (Dodge & Cox Income) has been removed.
- ▶ The funds' weights have changed
- ▶ The identifier assigned to the Moderate model portfolio (MODERATE1) is included, and
- ▶ The date (originally 3/31/2012) has been updated.

Exercise 24: Use an identifier to import data to an existing model portfolio

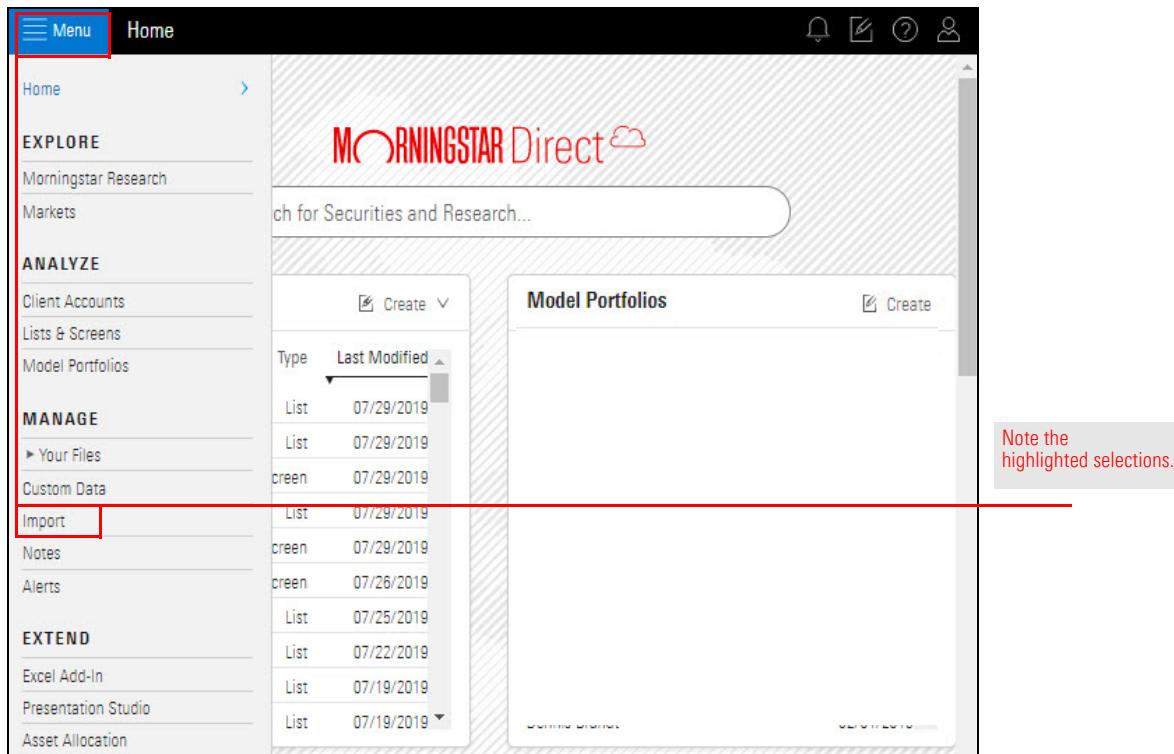
The data to be imported is shown here.

Account Number	Account Name	Date	Ticker	Holding Name	Weight
MODERATE1	Moderate	7/31/2019	AEPGX	American Funds Europacific Growth A	20
MODERATE1	Moderate	7/31/2019	AMCPX	American Funds AMCAP A	12.5
MODERATE1	Moderate	7/31/2019	AMRMX	American Funds American Mutual A	12.5
MODERATE1	Moderate	7/31/2019	ANWPX	American Funds New Perspective A	12.5
MODERATE1	Moderate	7/31/2019	AWSHX	American Funds Washington Mutual A	5
MODERATE1	Moderate	7/31/2019	CGIAX	American Funds Intl Gr and Inc529A	5
MODERATE1	Moderate	7/31/2019	CWGIX	American Funds Capital World GR&Inc A	10
MODERATE1	Moderate	7/31/2019	IVV	iShares Core S&P 500 ETF	12.5
MODERATE1	Moderate	7/31/2019	AGTHX	American Funds Growth Fund of Amer A	5
MODERATE1	Moderate	7/31/2019	LTEBX	American Funds Ltd-Term Tx-Ex Bd A	5

☞ Note: You imported an Excel file earlier [Exercise 2 on page 10](#). This procedure is the same except the identifier directs the imported data to the Moderate model portfolio.

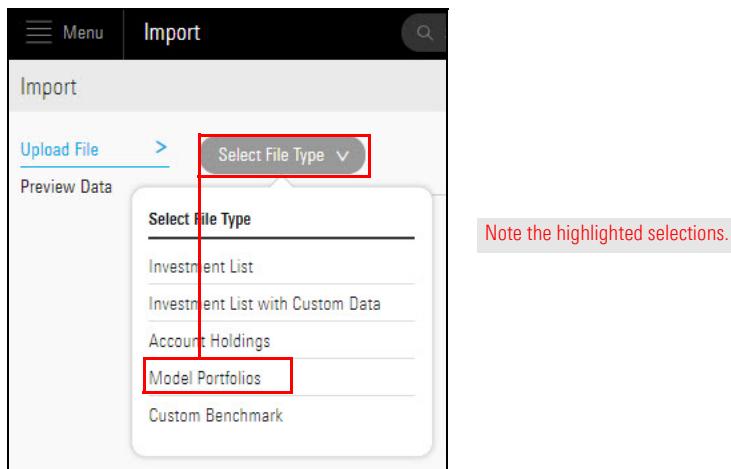
Do the following:

1. Download the [Excel file](#) for this exercise.
2. In the upper-left corner of the Home page, **hover the cursor** over **Menu** and select **Import**. The Import page opens.



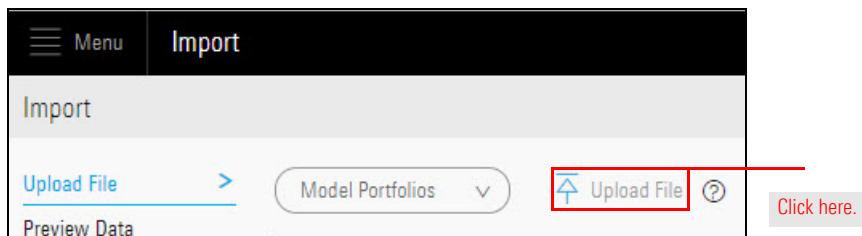
The screenshot shows the Morningstar Direct Home page. A red box highlights the 'Menu' button in the top-left corner. The 'Import' option in the left sidebar is also highlighted with a red box. The main content area displays the 'Model Portfolios' section, which includes a 'Create' button and a list of portfolios. A red box highlights the 'Model Portfolios' section. A callout box in the bottom right corner says 'Note the highlighted selections.'

3. At the left side of the Import window, the Upload File option is selected. From the **Select File Type** menu, select **Model Portfolios**. To the right of the Select File Type menu, the Upload File icon appears.



The screenshot shows the 'Import' window. The 'Upload File' option is selected in the top-left. A red box highlights the 'Select File Type' dropdown menu. The dropdown menu lists several options: 'Investment List', 'Investment List with Custom Data', 'Account Holdings', 'Model Portfolios' (which is highlighted with a red box), and 'Custom Benchmark'. A callout box in the bottom right corner says 'Note the highlighted selections.'

4. Click **Upload File**. A navigation window opens.



5. Locate and **double-click ModerateUpdate.xls**. On the Import page, the import options are displayed.



6. In the Column Mapping area, make a **selection** from each Unmapped menu. Each unmapped menu selection corresponds to a column in the Excel spreadsheet. A selection for each column is required. Be sure to select **Model Portfolio Number** in the first column.

☞ Note: The rightmost Mapping columns might not be displayed. **Scroll right** until you can see the column displaying weights.

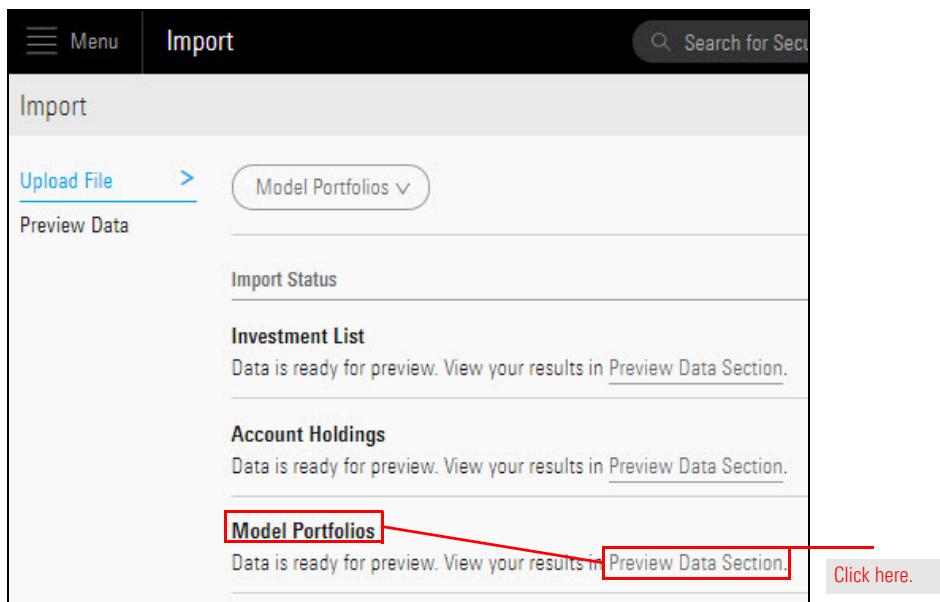
The screenshot shows the 'Column Mapping' page for 'ModerateUpdate.xls'. Several fields are highlighted with red boxes and accompanied by callout boxes with instructions:

- Model Portfolio N.** (highlighted in red) with a callout box: "Be sure to select Model Portfolio Number."
- Date** (highlighted in red) with a callout box: "Scroll right to see more Unmapped columns."
- Weight Format** (highlighted in red) with a callout box: "Don't forget to select Percentage"

Model Portfolio N.	Date	Symbol/Ticker	Holding Name	Weight
Ignore	Account Name	Date	Ticker	Holding N
Date	Moderate	2019-07-31	AEPGX	American
Model Portfolio Number	Moderate	2019-07-31	AMCPX	American

Other visible controls include 'Reset', 'Preview Data', 'Exclude Header Row', 'Date Format' (set to 'First 1 row' and 'MM/DD/YYYY'), and 'Weight Format' (radio buttons for 'Decimal' and 'Percentage' with 'Percentage' selected).

7. In the upper-right corner, click **Preview Data**. File uploading begins.
8. Under **Model Portfolios**, click **Preview Data Section**.



The screenshot shows the 'Import' interface with the 'Model Portfolios' tab selected. The 'Model Portfolios' section is highlighted with a red box and a red arrow points to the 'Preview Data Section' link. A 'Click here' button is also highlighted with a red box.

Import

Upload File > Model Portfolios

Preview Data

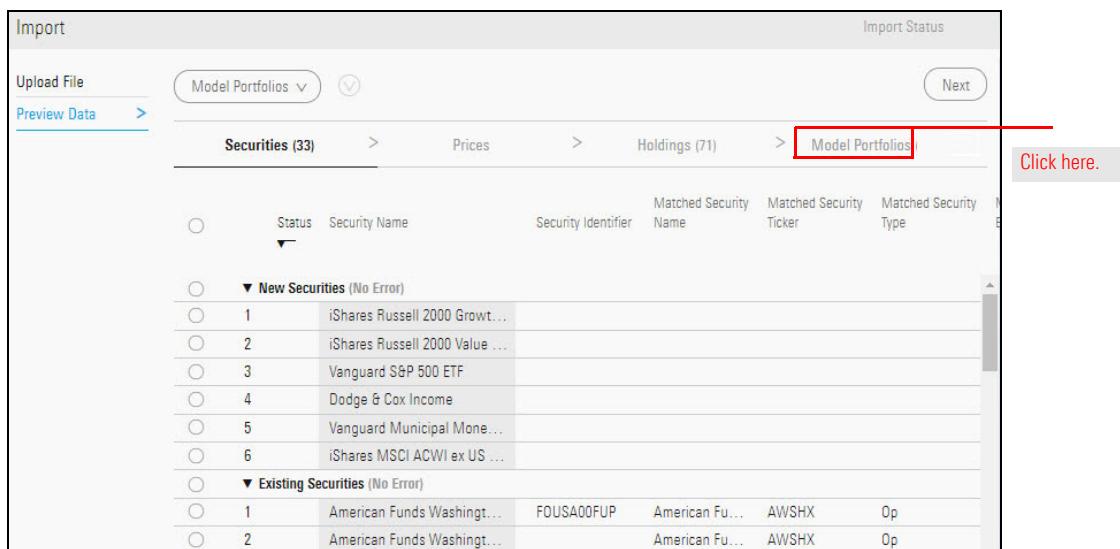
Import Status

Investment List
Data is ready for preview. View your results in [Preview Data Section](#).

Account Holdings
Data is ready for preview. View your results in [Preview Data Section](#).

Model Portfolios [Preview Data Section](#) [Click here](#)

9. Select the **Model Portfolios** tab.



The screenshot shows the 'Import' interface with the 'Model Portfolios' tab selected. The 'Model Portfolios' section is highlighted with a red box and a red arrow points to the 'Click here' button. The preview data section shows a list of securities with columns for Status, Security Name, Security Identifier, Matched Security Name, Matched Security Ticker, and Matched Security Type.

Import

Upload File > Model Portfolios

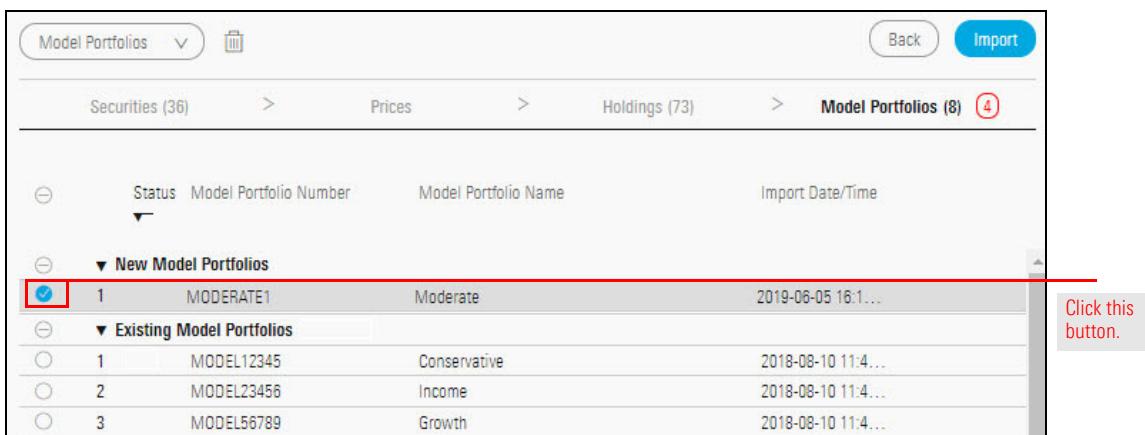
Preview Data > [Click here](#)

Import Status

Securities (33) > Prices > Holdings (71) > **Model Portfolios** [Click here](#)

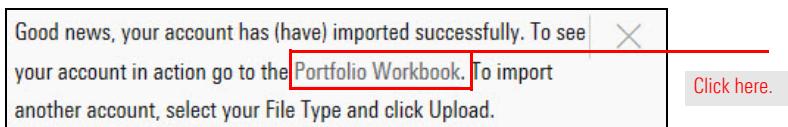
	Status	Security Name	Security Identifier	Matched Security Name	Matched Security Ticker	Matched Security Type
1	iShares Russell 2000 Growth Fund					
2	iShares Russell 2000 Value Fund					
3	Vanguard S&P 500 ETF					
4	Dodge & Cox Income Fund					
5	Vanguard Municipal Money Fund					
6	iShares MSCI ACWI ex US Fund					
New Securities (No Error)						
1	American Funds Washington Fund	FOUSA00FUP	American Fu...	AWSHX	Op	
2	American Funds Washington Fund	FOUSA00FUP	American Fu...	AWSHX	Op	
Existing Securities (No Error)						

10. Click the circle next to **MODERATE1**, then click **Import**.



Model Portfolio Number	Model Portfolio Name	Import Date/Time
1 MODERATE1	Moderate	2019-06-05 16:1...

11. A message opens, announcing the account was imported successfully. Click **Portfolio Workbook**. The “Select a portfolio list to view in this workbook” dialog box opens.



Good news, your account has (have) imported successfully. To see your account in action go to the [Portfolio Workbook](#). To import another account, select your File Type and click [Upload](#).

[Click here.](#)

12. In the “Select a portfolio list to view in this workbook” dialog box, select **All Model Portfolios**. The Model Portfolios workbook opens.



Select a portfolio list to view in this workbook

All Custom Benchmarks

All Model Portfolios

All Client Accounts

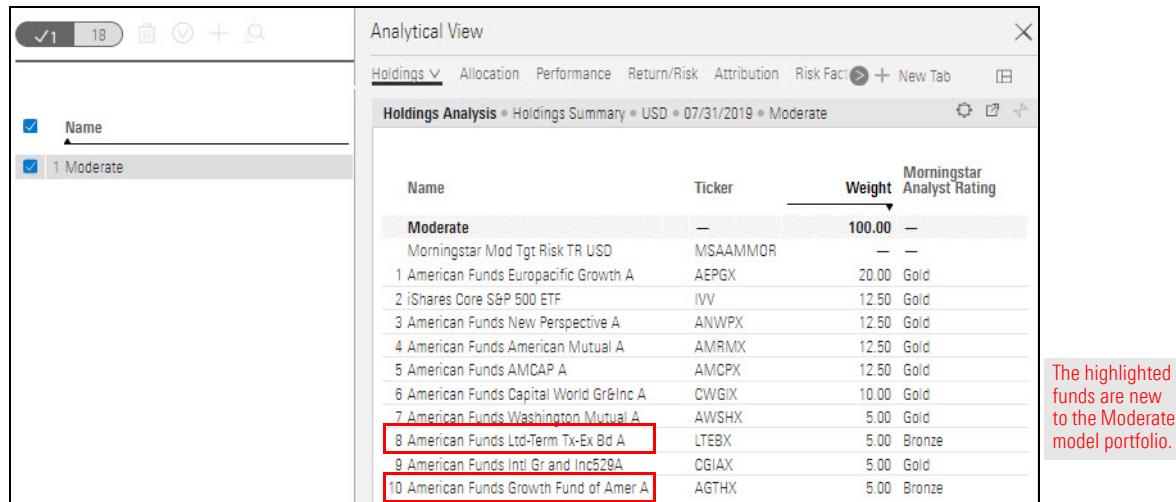
Select this option.

13. In the Grid, click **Moderate**, then select the **Holdings** worksheet.

In the Holdings Analysis table, note the following:

- ▶ Two funds (American Funds Growth Fund of Amer A and American Funds Ltd-Term Tx-Ex Bd A) have been added.
- ▶ One fund (Dodge & Cox Income) has been removed, and
- ▶ The funds' weights have changed.

By default, a table or chart always displays the data from the most recent date.



The highlighted funds are new to the Moderate model portfolio.

Name	Ticker	Weight	Morningstar Analyst Rating
Moderate	—	100.00	—
Morningstar Mod Tgt Risk TR USD	MSAAMMOR	—	—
1 American Funds Europacific Growth A	AEPGX	20.00	Gold
2 iShares Core S&P 500 ETF	IVV	12.50	Gold
3 American Funds New Perspective A	ANWPX	12.50	Gold
4 American Funds American Mutual A	AMRMX	12.50	Gold
5 American Funds AMCAP A	AMCPX	12.50	Gold
6 American Funds Capital World Gr&Inc A	CWGIX	10.00	Gold
7 American Funds Washington Mutual A	AWSHX	5.00	Gold
8 American Funds Ltd-Term Tx-Ex Bd A	LTEBX	5.00	Bronze
9 American Funds Int'l Gr and Inc529A	CGIAX	5.00	Gold
10 American Funds Growth Fund of Amer A	AGTHX	5.00	Bronze

In addition to its holdings, a model portfolio can contain other portfolio objects. Adding a portfolio object to a model portfolio is called “embedding.” The model portfolio is the “parent.” The portfolio object added to the parent is the “child.”

When embedding objects in the Portfolio Editor, all custom portfolio objects are available. Five levels of nesting are supported.

What is embedding and how is it used in a model portfolio?

Before you can go on to the embedding exercise, you need to import an Excel file.

In [Exercise 24 on page 69](#), you used an identifier to import data directly into an existing model portfolio. In this exercise, you will use an identifier to create two new model portfolios. In the following image, note that two model names are listed in the Model Name column.

Exercise 25: Import data for multiple model portfolios

A	B	C	D	E
Model Name	Date	Identifier	Holding Name	Weight
Model2	3/31/2012	FDCAX	Fidelity Capital Appreciation	10
Model2	3/31/2012	VSEQX	Vanguard Strategic Equity Inv	15
Model2	3/31/2012	POGRX	PRIMECAP Odyssey Growth	20
Model2	3/31/2012	RFI	Cohen & Steers Tot Ret Realty	20
Model2	3/31/2012	BST	BlackRock Science and Technology Trust	25
Model2	3/31/2012	SKYY	First Trust Cloud Computer ETF	10
Model3	7/31/2013	VWELX	Vanguard Wellington	20
Model3	7/31/2013	GLRBX	James Balanced Golden Rainbow	20
Model3	7/31/2013	PRSXIX	T. Rowe Price Personal Strategies Income	20
Model3	7/31/2013	HABDX	Harbor Bond	20
Model3	7/31/2013	FSHBX	Fidelity Short-Term Bond	20

The data will be imported as separate model portfolios—Model2 and Model3.

Do the following:

1. **Download** the [Excel file](#) for this exercise. This file (Combination.xls) lists aggressive investments and conservative investments, named Model2 and Model3, respectively.
 - ☞ Note: You will change the names after importing.
2. **Import** it as a model portfolio, following the steps in [Exercise 2 on page 10](#).

3. In [step 9 on page 11](#), the window should look like this:

Model Portfolio Name	Date	Symbol/Ticker	Holding Name	Weight %
Account Number	Date	Identifier	Holding Name	Weight
Model2	2012-03-31	FDCAX	Fidelity Capital Appre...	10
Model2	2012-03-31	VSEQX	Vanguard Strategic E...	15

Security Identifier Mapping: Identifier

Security Mapping Option: Exclude Inactive Investments, Auto Select Oldest Share, Auto Select Virtual Class

Exclude Header Row: First 1 row, Date Format: MM/DD/YYYY, Weight Format: Percentage

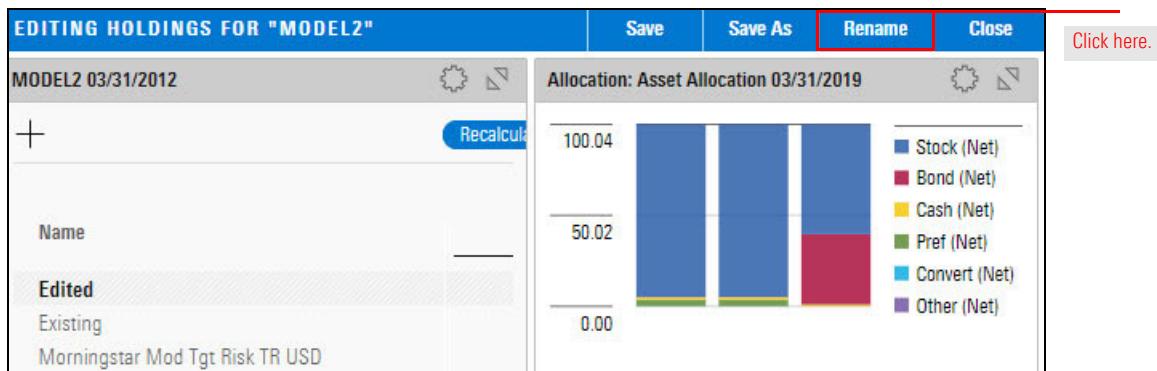
When you're finishing importing, the Grid in the Model Portfolios workbook should include Model2 and Model3.

	Name	Asset Alloc Stock (Long) (mo-end)	Asset Alloc Stock (Short) (mo-end)
<input type="checkbox"/>	1 5 Year Plan	0.00	0.00
<input type="checkbox"/>	2 Growth	38.08	0.00
<input type="checkbox"/>	3 Income	52.35	0.00
<input type="checkbox"/>	4 Income ETFs Portfolio	97.67	0.00
<input type="checkbox"/>	5 Mixed Assets	25.02	0.00
<input type="checkbox"/>	6 Model2	94.93	0.20
<input type="checkbox"/>	7 Model3	47.39	0.00
<input type="checkbox"/>	8 Moderate	88.57	0.00
<input type="checkbox"/>	9 Moderate Aggressive	84.05	0.00
<input type="checkbox"/>	10 Moderately Investible ETFs	69.63	0.00
<input type="checkbox"/>	11 Top3	100.00	0.00

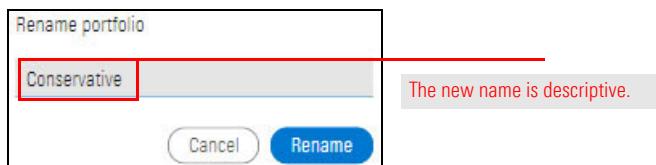
4. Model2 and Model3 are generic names, which are not useful. You can rename them in the Model2 row, **hover the cursor** over the **Action** icon.

5. From the menu, select **Edit Holdings**. The Editing Holdings window opens.

6. In the upper-right corner of the Editing Holdings window, click **Rename**. The Rename portfolio dialog box opens.



7. Type **Conservative** and click **Rename**.



8. In the Editing Holdings window, click **Save** and **Close**.

9. Repeat step 4 through step 7, renaming Model3 as **Aggressive**.

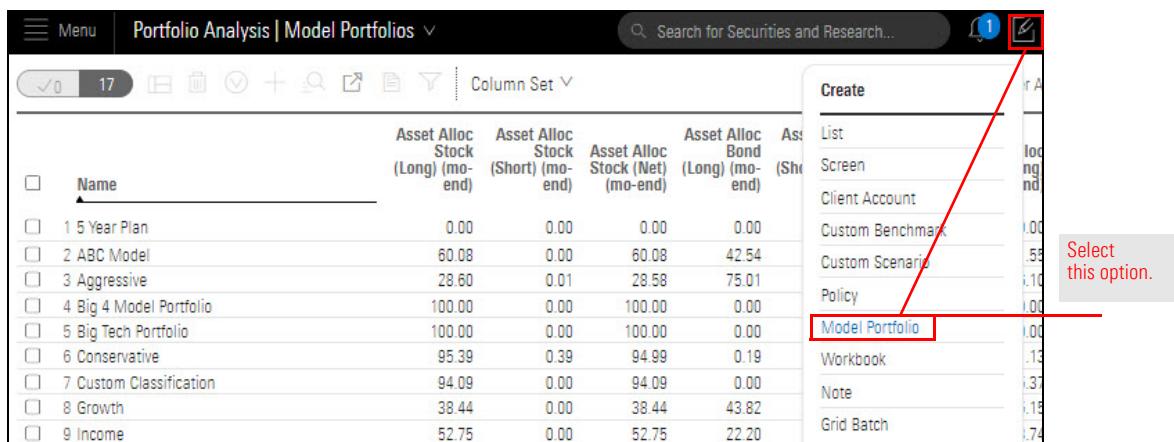
10. In the Editing Holdings window, click **Save** and **Close**.

Suppose the following:

- You need to create a moderate model portfolio, and
- You have access to conservative and aggressive model portfolios.

Instead of adding holdings manually, you will create a new model portfolio and embed the Conservative and Aggressive model portfolios.

1. On the header, click the **Create** icon and select **Model Portfolio**. The Creating Model Portfolios window opens.



Portfolio Analysis | Model Portfolios

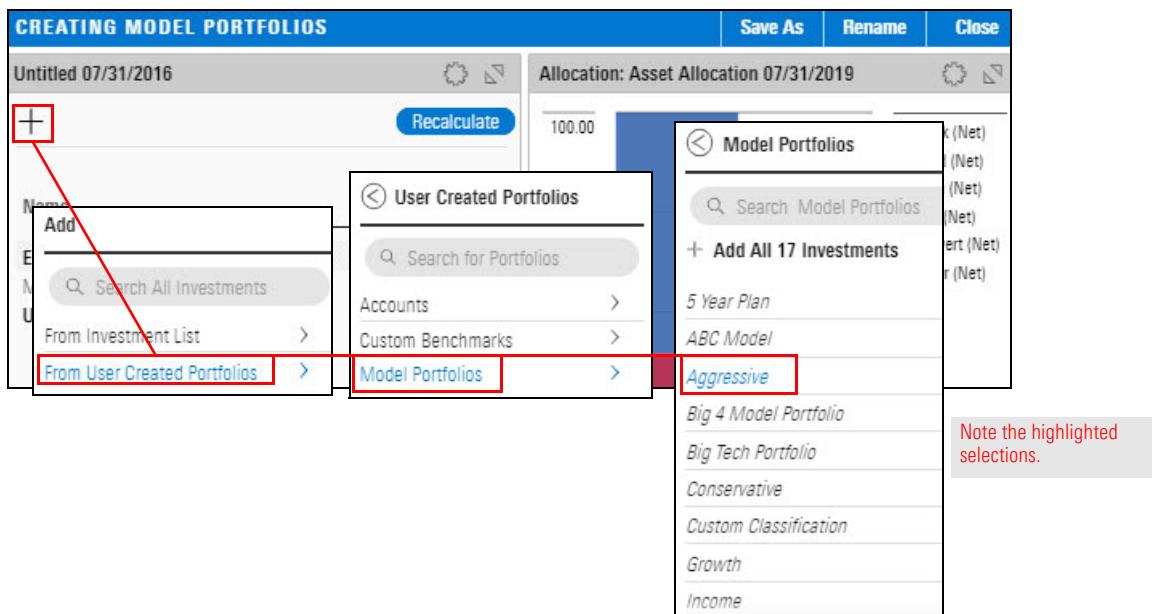
Column Set ▾

Name	Asset Alloc Stock (Long) (mo-end)	Asset Alloc Stock (Short) (mo-end)	Asset Alloc Stock (Net) (mo-end)	Asset Alloc Bond (Long) (mo-end)	Asset Alloc Bond (Short) (mo-end)
1 5 Year Plan	0.00	0.00	0.00	0.00	
2 ABC Model	60.08	0.00	60.08	42.54	
3 Aggressive	28.60	0.01	28.58	75.01	
4 Big 4 Model Portfolio	100.00	0.00	100.00	0.00	
5 Big Tech Portfolio	100.00	0.00	100.00	0.00	
6 Conservative	95.39	0.39	94.99	0.19	
7 Custom Classification	94.09	0.00	94.09	0.00	
8 Growth	38.44	0.00	38.44	43.82	
9 Income	52.75	0.00	52.75	22.20	

Create

- List
- Screen
- Client Account
- Custom Benchmark
- Custom Scenario
- Policy
- Model Portfolio**
- Workbook
- Note
- Grid Batch

2. In the upper-left corner, click the **Add** icon. The Add dialog box opens.
3. Select **From User Created Portfolios > Model Portfolios** > select **Conservative** model portfolio.
4. **Click away** from the menu to close it.



CREATING MODEL PORTFOLIOS

Untitled 07/31/2016

Allocation: Asset Allocation 07/31/2019

Add

From User Created Portfolios

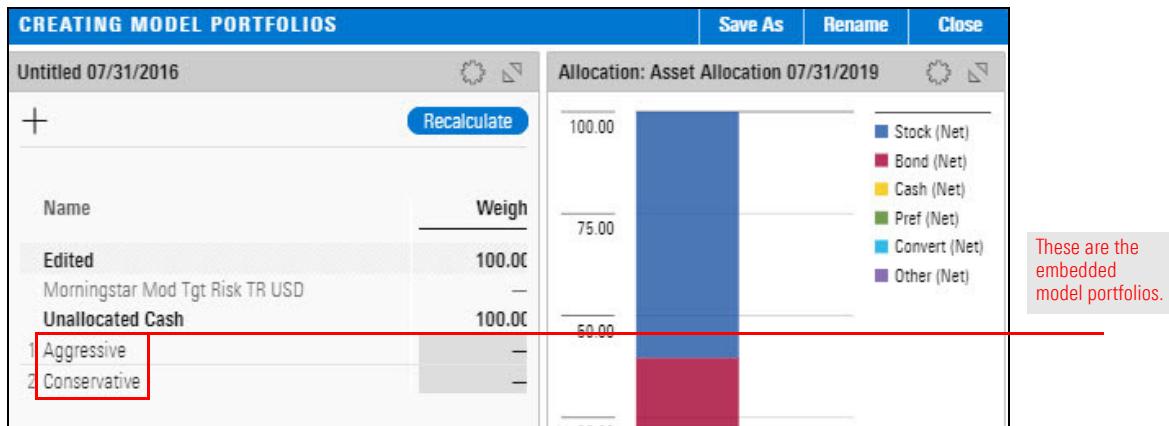
Model Portfolios

Aggressive

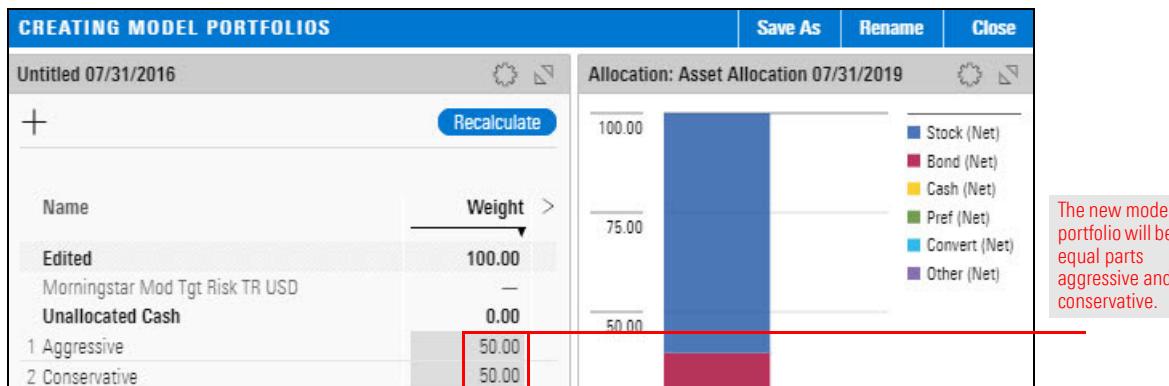
Note the highlighted selections.

5. Add the **Conservative** model portfolio by repeating [step 2](#) through [step 4](#).

Note the list of holdings.



6. Set the **weight** of each embedded model portfolio to **50**.



7. In the upper-right corner, click **Save As**.

8. Name the new model portfolio **Moderate Combination** and click **Save**.

9. In the upper-right corner, click **Close**.

You have embedded two model portfolios in a new model portfolio named Moderate Combination. The model portfolios have the following relationship:

- Moderate Combination is the parent, and
- Conservative and Aggressive are the children.

When you delete a child, a message opens, requiring confirmation before continuing.

In the following illustration, if you click Delete, the Conservative model portfolio is deleted from your system and from all portfolio objects (parents) it is held by.

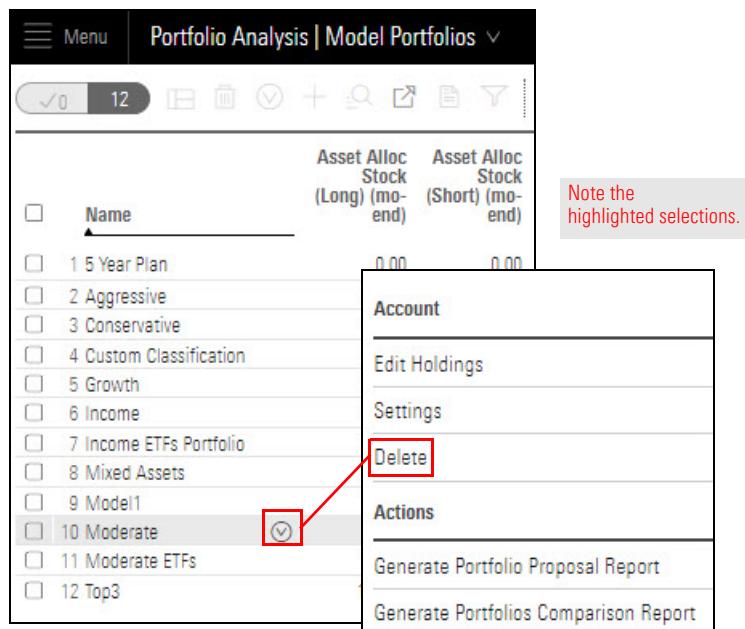


When you delete a holding from a child portfolio object, the holding is deleted. No confirmation message opens.

At some point in time, a model portfolio might outlive its usefulness. In this exercise, you will delete that model portfolio.

Do the following:

1. In the Model Portfolios workbook Grid, **hover the cursor** over **Moderate**. The Actions icon appears.
2. Click the **Actions** icon and select **Delete**. An alert dialog box opens, where you can cancel or continue with the deletion.



Exercise 27: Delete a model portfolio

3. Click **Delete**. The dialog box closes.

The screenshot shows the Morningstar Direct interface. At the top, a 'Delete Portfolio' dialog box is open, asking 'Do you want to delete "Moderate"?'. It states that 'Moderate' is not held by other portfolios and that deleting it will not affect other portfolios. The 'Delete' button is highlighted with a red box and a callout 'Select this option.' A message box to the right of the table says 'Moderate is no longer listed in Model Portfolios.' The main table below is titled 'Portfolio Analysis | Model Portfolios' and shows 11 rows of data. The first column contains checkboxes, and the second column contains portfolio names. The last two columns show 'Asset Alloc Stock (Long) (mo-end)' and 'Asset Alloc Stock (Short) (mo-end)' values. The rows are numbered 1 to 11. The rows for 'Moderate' and 'Model1' are highlighted with red boxes.

	Name	Asset Alloc Stock (Long) (mo-end)	Asset Alloc Stock (Short) (mo-end)
<input type="checkbox"/>	1 5 Year Plan	0.00	0.00
<input type="checkbox"/>	2 Aggressive	94.96	0.39
<input type="checkbox"/>	3 Conservative	47.41	0.00
<input type="checkbox"/>	4 Custom Classification	94.03	0.00
<input type="checkbox"/>	5 Growth	38.10	0.00
<input type="checkbox"/>	6 Income	52.37	0.00
<input type="checkbox"/>	7 Income ETFs Portfolio	97.49	0.00
<input type="checkbox"/>	8 Mixed Assets	25.02	0.00
<input type="checkbox"/>	9 Model1	79.50	0.00
<input type="checkbox"/>	10 Moderate ETFs	71.18	0.16
<input type="checkbox"/>	11 Top3	100.00	0.00