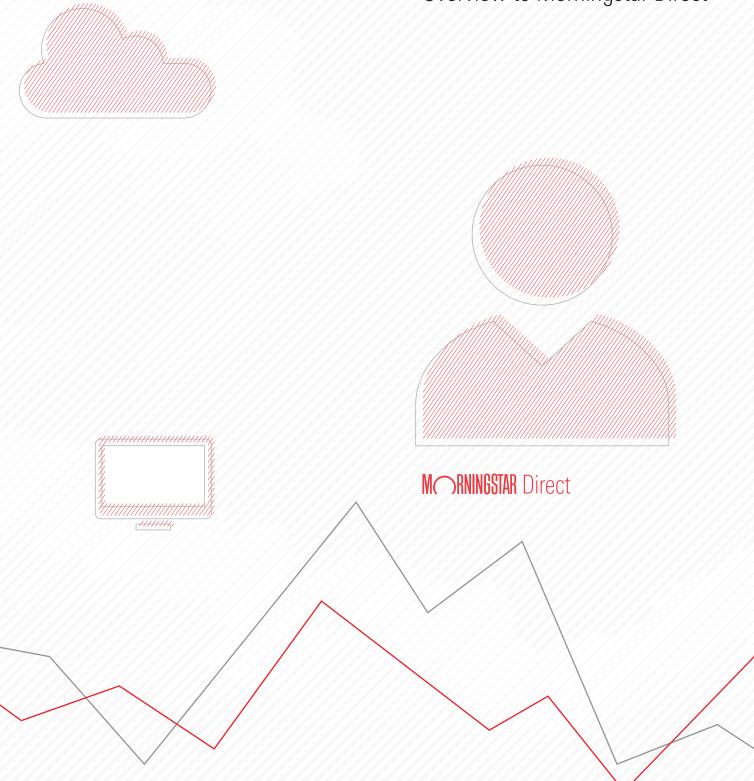
# Morningstar Direct Training Guide Overview to Morningstar Direct



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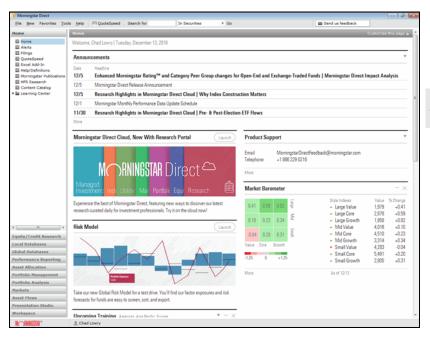


# **QuickStart Guide to Morningstar Direct** SM

Morningstar Direct<sup>SM</sup> delivers investment vision. It's a global investment analysis platform uniting all of Morningstar's data and institutional research, private and third-party content, rigorous analytics, and productivity tools.

In this manual, you will learn some basic information about Morningstar Direct, including the following:

- ► Basic navigation of the application
- ► What each module in Morningstar Direct does and why you would use it, and
- ► How to progress through the available resources to learn more about using Morningstar Direct.



**Overview** 

Morningstar Direct offers a wealth of research and presentation capabilities

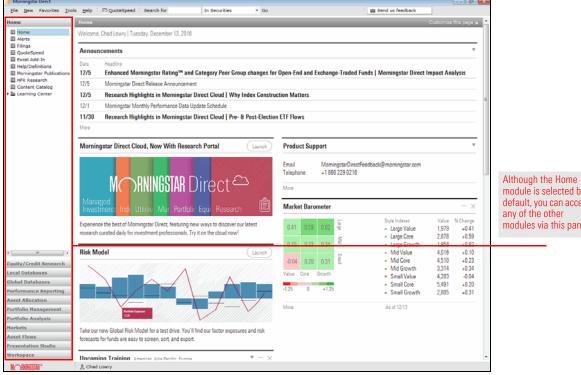
#### **Navigating in Morningstar Direct**

This section explains how Morningstar Direct is organized as an application, and how you can find your way in it.

**Overview** 

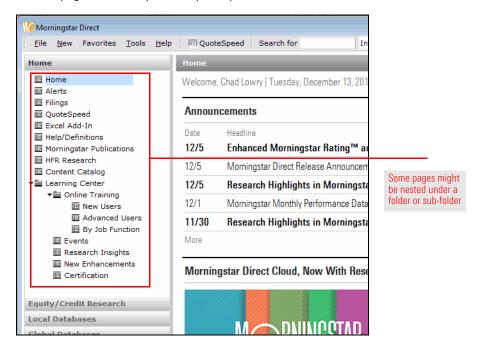
Morningstar Direct is composed of a number of modules. These modules can be used independently, but also interact with one another. When you first log in to the application, the Home module is selected by default. The names of the other modules are seen in the left-hand side of the window. Click the name of a module to access its features and functionality.

How is **Morningstar Direct** designed to be used?

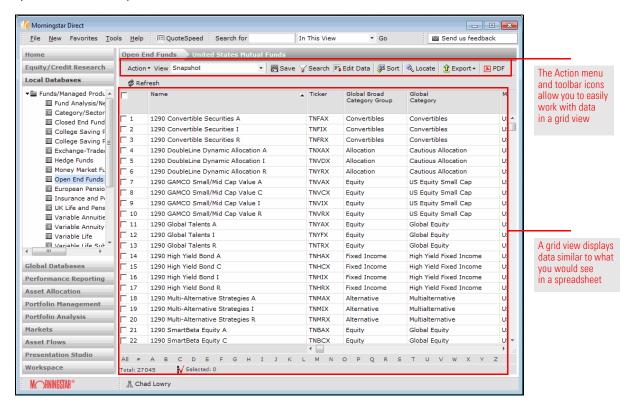


module is selected by default, you can access any of the other modules via this pane

Within each module are a series of pages; some pages are in folders or sub-folders. Select a page to use its specific capability.



Many pages in Morningstar Direct are depicted as a grid view, with rows of investments (or other items, such as portfolios or saved reports) and columns of data. Above the grid view is a toolbar, with an Action menu and several icons. The menu options and icons vary from module to module.





#### **Understanding the Home Module**

The Home module of Morningstar Direct provides a landing page (the Home page) for users upon logging into the application, as well as access to the Learning Center and the Morningstar® Excel Add-In tool. This section details some of the most important features of the Home module.

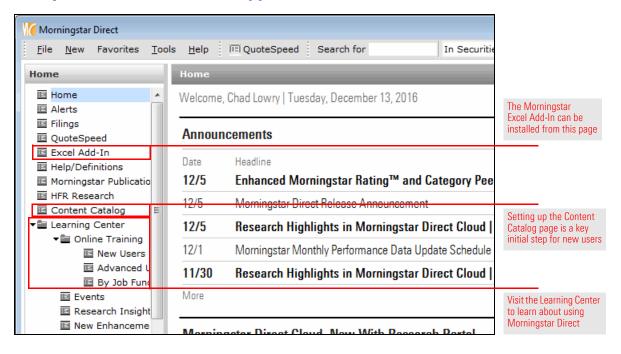
Overview

The Home module keeps you informed on changes to the application, from month-end data updates to program enhancements. The Home module also contains the Learning Center, a resource with valuable content to help you learn Morningstar Direct and make the best use of your subscription.

Why would I use the Home module?

Another key aspect of the Home module is the Content Catalog page. From here, you can set your entitlement privileges for various index providers to ensure you have access to the proper level of data when comparing investments to indexes. It's probably best to work with your CSC on configuring these settings.

Additionally, the download link to install the Morningstar Excel Add-In is also found under the Home module. The Morningstar Excel Add-In allows you to access data from the Morningstar databases for further calculation, formatting or charting. The Morningstar Excel Add-In has its own training guide.

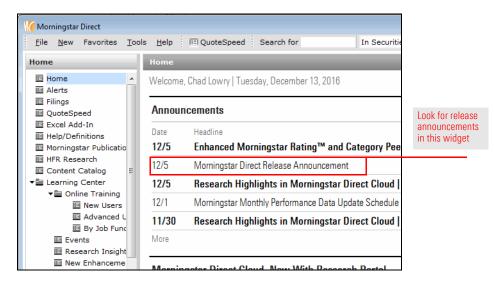




Features of Morningstar Direct are updated at least quarterly. Whenever a new update is released, a notice is posted in the Announcements widget of the Home page. Click the announcement to read details about the features and data in the new release.

Where can I read about updates to the application?

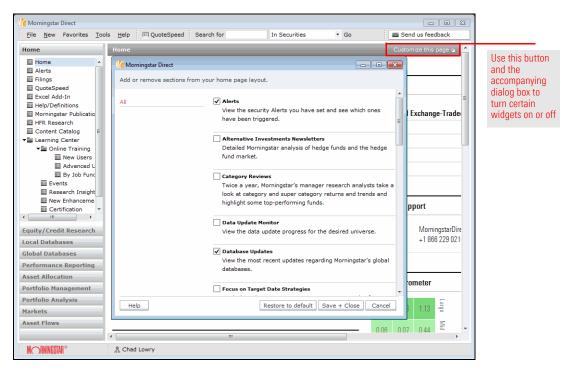
The Announcements widget contains other important alerts related to data in Morningstar Direct, so be sure to review this area at least weekly.



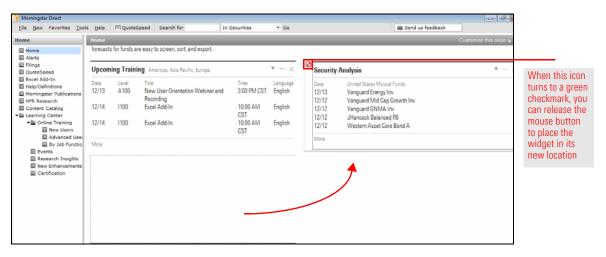


The position of some widgets (such as Announcements) are fixed on the Home page, and they cannot be removed or repositioned. Other widgets can be added, removed, and repositioned. To add or remove a widget, simply click the **Customize this page** button in the upper-right corner of the Home page. From the dialog box that opens, simply check or clear the checkbox next to the widget(s) you want to show or hide.

Can I change the arrangement of the widgets on the Home page?



To reposition a widget, simply move your mouse over the widget's header, then drag-and-drop it into a new location.



#### **Understanding the Equity/Credit Research Module**

The Equity/Credit Research module surfaces Morningstar's insight on stocks, corporate fixed-income securities, earnings estimates, and more. Although this content is available in the desktop version of Morningstar Direct, nearly all of it is also available on Morningstar Direct Cloud.

#### **Overview**

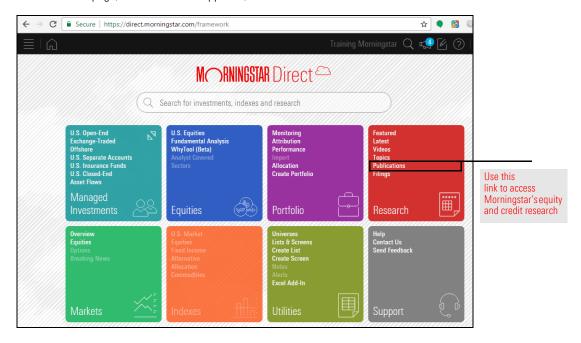
If you are looking for Morningstar's latest analyst research on specific investments, or insight on broader investment categories such as a stock sector, the Equity/Credit Research module is the place to locate this information. Note, however, that the Research app in Morningstar Direct Cloud has all the information you would find in this module, and more.

Why would I use the Equity/Credit Research module?

Morningstar Direct Cloud is the next-generation platform for Morningstar Direct. Over time, more and more functionality will be moved from the desktop version of Morningstar Direct to the cloud version. To access the same content for equity or credit research in Morningstar Direct Cloud that you would see in the desktop version of Morningstar Direct, do the following:

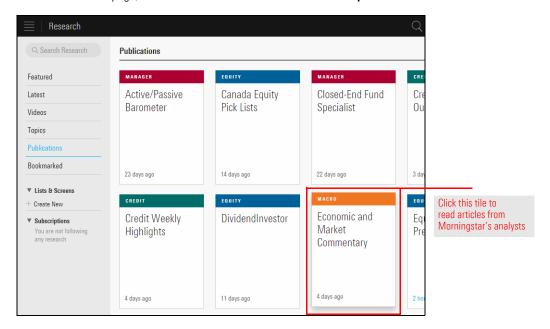
How do I find Equity/Credit research data on Morningstar Direct Cloud?

- 1. Open an internet browser, and go to https://direct.morningstar.com.
- 2. Log in to Morningstar Direct Cloud using the same credentials you use to login to the desktop version of the application.
- 3. From the Home page, on the Research app area, click the **Publications** link.

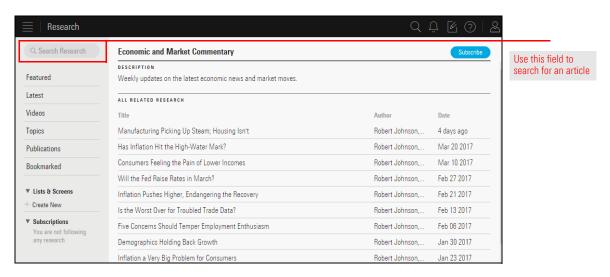




4. On the Publications page, click the **Economic and Market Commentary** tile.



5. Either **scroll** for the article you want to read, or use the **Search** feature to narrow the list of articles.



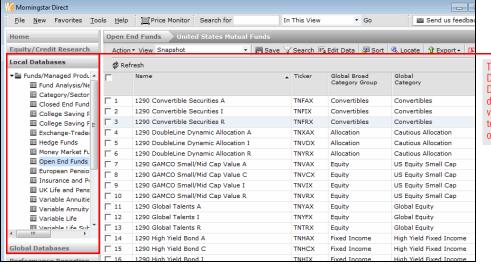
#### **Understanding the Local and Global Databases Modules**

The Local Databases and Global Databases modules allow you to conduct research on a variety of investments, indexes, category averages, and more. The Local Databases module contains investments domiciled in your home country, while the Global Databases module contains all global securities.

**Overview** 

The Local Databases and Global Databases modules are used most often when you need to quickly look up a piece of information (e.g., P/E Ratio, Annual Net Expense Ratio, 3 Yr % Rank in Category) about an investment, but you don't need to see a customized data set, or view a list of investments you have saved.

Why would I use these modules?



The Local
Databases & Global
Databases modules
display a grid
view with access
to thousands
of data points

Both the Local and Global Databases modules and the Workspace module allow users to conduct research on different investment types. A key distinction, however, is that in the Local and Global Databases modules, a user can see only one investment type at a time, while the Workspace module allows users to search across multiple investment types.

What are the differences between the Local/Global Databases modules and the Workspace module?

For example, in the Local Databases module, you can create a search to look for either open-end funds or exchange-traded funds, but you cannot research both simultaneously. In the Workspace module, however, you can create a search that considers both open-end funds and exchange-traded funds at once. The Workspace module has other unique features not found in the Local/Global Databases modules; you can read about those in Understanding the Workspace Module on page 19.

Another feature setting the Local and Global Databases modules apart from the Workspace module is the availability of data on ownership analysis, economic indicators, and exchange rates.

#### **Understanding the Performance Reporting Module**

Performance Reporting is specifically designed to monitor the performance of investments organized into groupings based on your own custom classifications. For example, you might want to see funds grouped by Morningstar Category, or you can group all large-cap funds together. You can assign benchmarks, define data points to display on the report, and perform ranking analysis. Both qualitative and quantitative factors can be applied to the report. You can also implement a Scorecard using standardized values or custom grades to further monitor your investments.

**Overview** 

The Performance Reporting module allows you to build a custom report within Morningstar Direct where you define the rows of investments and columns of data points. This might sound similar to using a search or list and then building a custom data set in the Workspace module, but the Performance Reporting module not only makes it easier to define time periods and allows custom grouping options for rows, but also enables you to add conditional formatting (i.e., color) to rows or cells and includes a Scorecard feature to help you analyze the information displayed.

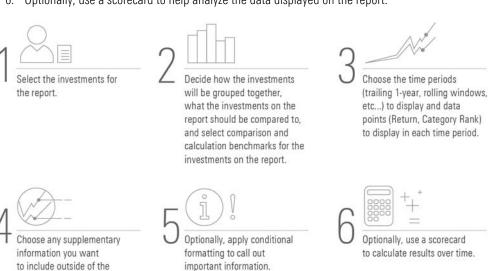
Why would I create a performance report?

What are the basic steps involved in creating

a performance report?

To create a performance report in Morningstar Direct, take the following basic steps:

- 1. Select the investments to display on the report. This might involve the use of an existing list or search you created in the Workspace module.
- 2. Choose the groupings and peer groups to use, as well as the benchmarks for the report.
- 3. Set the time periods to depict on the report, and the performance or rank data points to display in each time period. The time periods could be static windows, such as the trailing 1-, 3-, or 5-year periods, or you can create rolling windows, or more.
- 4. What supplementary data points do you want to include on the report? These might include an investment's ticker symbol, Morningstar Analyst Rating, or any of the other thousands of data points available to you in Morningstar Direct.
- 5. Optionally, include conditional formatting to call out important information.
- 6. Optionally, use a scorecard to help analyze the data displayed on the report.



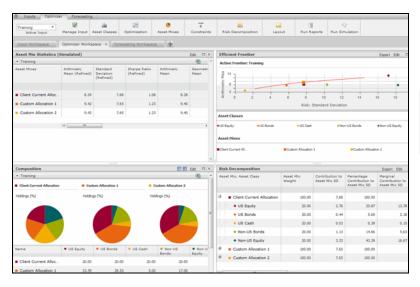


time periods.

#### **Understanding the Asset Allocation Module**

The quality of a portfolio's optimization depends on the quality of input assumptions — a reliable set of expectations about return, risk, and correlations is absolutely essential. In the Asset Allocation module, Morningstar Direct offers multiple models to develop and test capital market assumptions, including Black-Litterman, CAPM, historical, and more. Scenario-based simulation is available, without the time and storage constraints due to the data requirements. Non-normal distribution assumptions for capital markets can also be incorporated.

Although the Asset Allocation module is accessed in the desktop version of Morningstar Direct, the work you do in this module is actually performed in the cloud, at <a href="https://assetallocation.morningstar.com">https://assetallocation.morningstar.com</a>. A browser window opens automatically when you access certain capabilities of this module, and you will need to login using the same credentials you use for the desktop version of Morningstar Direct.



**Overview** 

The Asset Allocation module offers robust capabilities for creating models and running optimization scenarios

If you need to perform traditional mean-variance optimization (MVO), liability-driven optimization, or change the traditional asset allocation goals to focus on downside risk, multi-period returns, or other factors, then the Asset Allocation module is the resource to use. As the markets have shown, real-life finance is often more complex than the mathematical models used in the standard approaches to portfolio optimization. Morningstar's methodology includes the following benefits:

- depiction of "fat-tailed" distributions
- ► replaces a single period of expected return with the long-term, forward-looking geometric mean
- ► substitutes conditional VAR (or another risk metric) for standard deviation
- replaces the covariance matrix with a scenario-based model, and
- exploits new statistical technologies.
  - Note: If you use the asset allocation models you create here to build portfolios in the Portfolio Management module, you can take your work a step further and conduct Total Portfolio Attribution in the Portfolio Analysis module.

Why would I use the Asset Allocation module?

#### **Understanding the Portfolio Management Module**

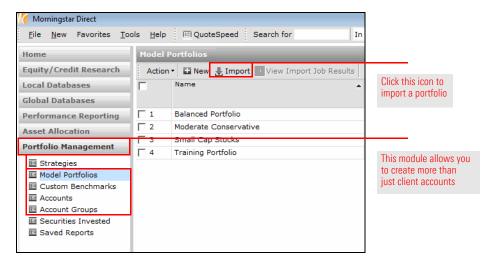
Portfolio Management is an area to create, analyze, and manage model portfolios, custom benchmarks, and accounts. You can also create account groups (i.e., structured account organizations) for easier account management. You can also view your full list of securities in these accounts.

**Overview** 

If you need to create model portfolios, client accounts, or custom benchmarks for those items, the Portfolio Management module is the tool to do all of this, and more. You can manually create portfolios and accounts, or via a simple import process.

Why would I use the Portfolio Management module?

The portfolios or accounts you create here can be reused in other parts of Morningstar Direct. For example, you can compare an existing portfolio to a recommended lineup in Presentation Studio, or use Presentation Studio to compare two model portfolios with slightly different investment lineups. You can also conduct either single-portfolio attribution for individual funds in a portfolio, or total portfolio attribution via the Portfolio Analysis module.



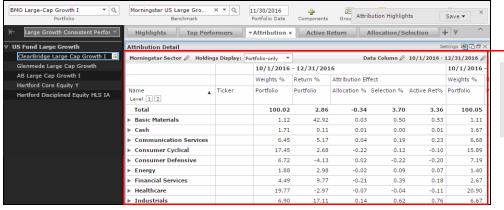
#### **Understanding the Portfolio Analysis Module**

The attribution analysis capabilities in the Portfolio Analysis module allow you to see how your decisions contributed to your investment results. Morningstar Direct supports sophisticated analysis at the manager or asset-class level, using a multi-decision hierarchy to model the portfolio decision-making process. Morningstar Direct combines the comprehensive methodologies needed to evaluate performance with rich graphics to allow you to quickly interpret the data.

**Overview** 

Performance attribution is a well-recognized, quantitative approach to identifying the impact of a portfolio manager's sector bets, regional allocations, stock selection, and more. The Portfolio Analysis module allows you to conduct single-portfolio equity attribution. This is offered via a website which you can launch from Morningstar Direct. You can also visit it directly by going to <a href="https://portfolioanalysis.morningstar.com">https://portfolioanalysis.morningstar.com</a>.

Why would I use the Portfolio Analysis module?



The Portfolio Analysis module allows you to conduct equity attribution analysis on a single portfolio

With Total Portfolio Attribution from Morningstar Direct, you can identify the performance impact attributable to a strategic asset allocation policy itself. Then, you can examine the outcome of deliberate deviations from policy weights done to take advantage of market conditions. You can measure a manager's skill in picking investments in aggregate, or by asset class or investment style. Non-skill-based measures, such as fees, are isolated to preserve the purity of skill-based decisions, allowing you to measure the value delivered by consultants relative to the fees incurred.

#### **Understanding the Markets Module**

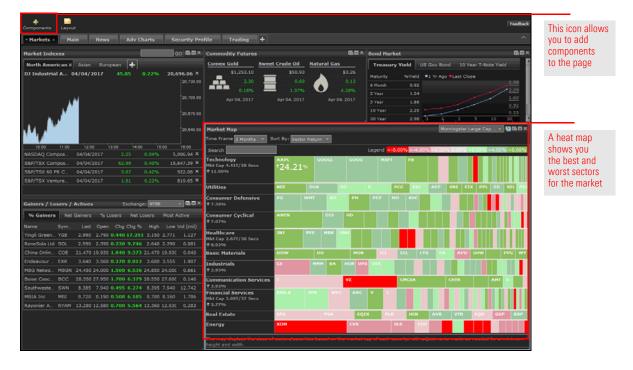
Similar to the Asset Allocation and Portfolio Analysis modules, the Markets module is located in Morningstar Direct Cloud. You can access the overview content on the markets from this link:

https://portfolioanalysis.morningstar.com/markets?mode=tool&fromPage=DirectCloud

The Markets module allows you to gain a perspective of market performance by streaming real-time data. You can follow all major exchanges with intraday quotes, charting, qualitative analysis, and the latest news. You can use the pre-built workspaces, or create your own pages with the components you choose. Each component also has a Settings button which you can use to manipulate the data displayed in the component.

#### **Overview**

Why would I use the Markets module?





#### **Understanding the Asset Flows Module**

The Asset Flows module supplies critical knowledge for monitoring broad investor trends, performing competitive analysis, developing new products, and marketing managed investment products. It delivers comprehensive estimated cash flow and market share data for a variety of investment types across multiple geographical markets. Fund marketing professionals, financial analysts, and the media rely on this data to track trends in the asset management industry.

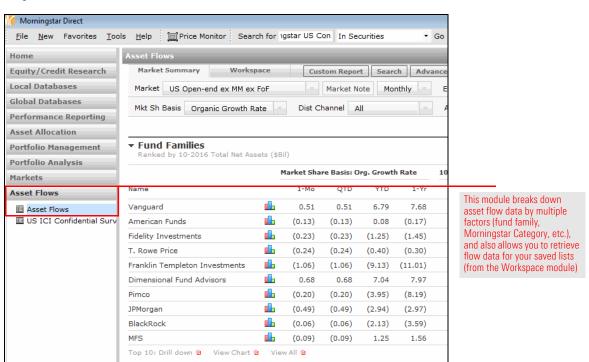
**Overview** 

Asset flows for U.S. open-end funds are typically published by the eighth business day after month-end, enabling you to evaluate investor behavior earlier than with any other comprehensive data source. The sooner you know what investors are doing, the more quickly you can identify trends or respond to investors' needs.

Why would I use the Asset Flows module?

Additionally, monthly PDF commentaries enable you to stay current with industry trends when you are off-line.

The module tracks not only open-end funds but separate accounts, ETFs, and insurance products as well. In addition, you can combine flow statistics with Morningstar Direct's historical performance, risk, operations, holdings, and proprietary statistics to drive insightful research.



#### **Understanding the Presentation Studio Module**

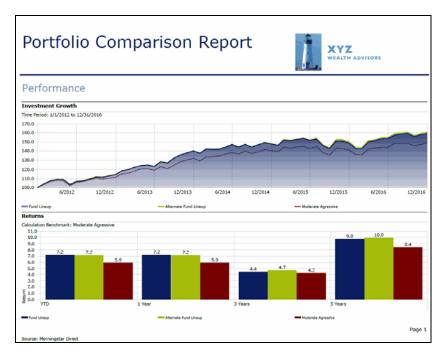
The insight you gain from the rest of Morningstar Direct is meaningless unless you can clearly communicate it. Morningstar Direct's Presentation Studio allows you to easily create professional, custom-branded factsheets and presentations, appropriate for the audiences you reach. You can start with a pre-built Morningstar template or design your own, and all templates can be saved for re-use later. Drag-and-drop functionality makes it easy to move, add, or remove components to suit your specific needs. Incorporate your company logos, colors, fonts, and custom disclaimers.

Overview

Presentation Studio allows you to create factsheets for individual investments or multiple-investment workbooks, using Morningstar data or your imported proprietary investment data. Presentation Studio features a library of professionally designed charts and data tables to clearly communicate complex investment analysis. You can easily build custom data tables and configure any chart to show only information relevant to your analysis. Available report components include portfolio holdings tables, performance attribution charts and tables, correlation matrices, and more.

Why would I use the Presentation Studio module?

Each report you create, as well as individual report components, can be saved as Adobe PDF documents or exported to Microsoft® PowerPoint® files for easy sharing and distribution.



Presentation Studio includes many templates developed by Morningstar experts, or you can build your own

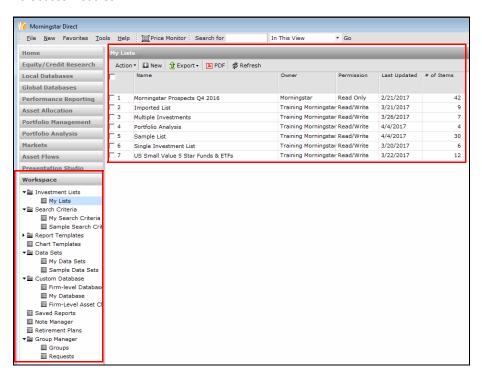
## **Understanding the Workspace Module**

The Workspace module contains the saved searches, lists, custom data sets, and notes you create in Morningstar Direct. You can also use this module to create your own custom data points with values you define.

Overview

As you practice using Morningstar Direct, you will likely find yourself conducting investment research, and creating lists, searches, and custom data sets in the Workspace module more than any other module. This is due, in part, to the convenience of saving all these files in the Workspace module. Additionally, the Workspace module offers a familiar grid view similar to what you find in the Local Databases and Global Databases modules; in the Workspace module, however, you can search for investments across multiple data universes (open-end funds, ETFs, etc.) rather than in just one universe as is the case with the Local Databases and Global Databases modules.

Why would I use the Workspace module?



The Workspace module allows you to see all of the lists you have saved, or those that have been shared with you or sent to you by other Morninostar Direct users

Be careful, however, not to use the Workspace module to the exclusion of other modules in Morningstar Direct. If you avoid the other modules, you create more work for yourself, and fail to take advantage of important features in those modules. For example, a list of funds is not a substitute for a portfolio of funds you created in Portfolio Management. The list of funds cannot be weighted the way a portfolio can, and it cannot be associated with a custom benchmark. Similarly, the work to create a custom data set in Workspace could be exponentially more difficult than doing the same work in the Performance Reporting module. Finally, the Workspace module does not allow you to take advantage of the conditional formatting and Scorecard features found in Performance Reporting.

#### Other Important Features of Morningstar Direct

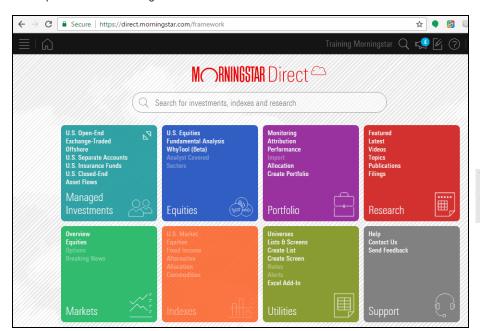
As you begin using Morningstar Direct, you will want to be familiar the following important features:

- ► Morningstar Direct Cloud
- ► the Morningstar Excel Add-In, and
- ► Report Portal.

Morningstar Direct Cloud is the next-generation platform for Morningstar Direct. Eventually, nearly all functionality from Morningstar Direct's desktop application will migrate to the cloud.

You can access this platform today and familiarize yourself with its capabilities. Simply log in using the same credentials you use to access Morningstar Direct.

Morningstar Direct Cloud has some content unique to that platform. For example, as discussed in the section on the Equity/Credit Research module, Morningstar Direct Cloud contains commentary from Morningstar's analysts (in the Research app). Also, it is only in Morningstar Direct Cloud's grid view (in the Managed Investments app) that you can find Morningstar's Risk Model data points; these are not available in the desktop version of Morningstar Direct.



**Overview** 

What is Morningstar Direct Cloud?

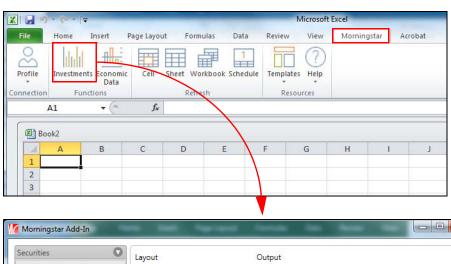
This is the home page for Morningstar Direct Cloud

Use the Help icon in the top-right corner of the toolbar in Morningstar Direct Cloud to access training content for that platform.

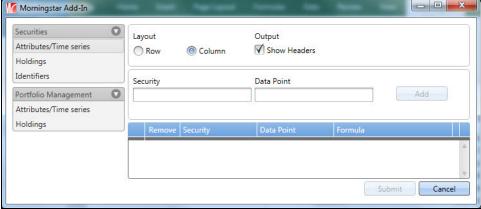
The Morningstar Excel Add-In allows you to retrieve data from the Morningstar database and load it into Microsoft® Excel® for further calculation, formatting, or charting. Thousands of widely used data points and investment types are available, including your custom data. Morningstar Direct users who download the Morningstar Excel Add-In are able to retrieve up to 500,000 data points per day.

# What is the Morningstar Excel Add-In?

The Morningstar Excel Add-In is available to all users of Morningstar Direct. Be sure to review the user guide for installing and using the Morningstar Excel Add-In.



Installing the Morningstar Excel Add-In adds a tab in Microsoft Excel to allow you to pull data from





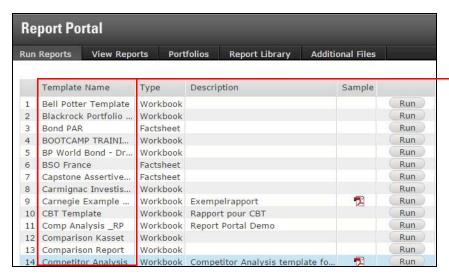
What is Report Portal?

Report Portal is an optional, on-demand publishing feature of Morningstar Direct. It works in conjunction with Presentation Studio, allowing firms to publish reports and other documents online to make them available to those who need access to reports, but do not need a to create them. Report Portal is an easy and efficient way to ensure that your sales groups, advisors, consultants, and other teams always have access to consistent, up-to-date reports and materials.

The basic workflow when using Report Portal is as follows:

- 1. An administrator at a firm uses Presentation Studio in Morningstar Direct to create a report template (and, optionally, disclosure material).
- 2. In Report Portal, the administrator creates groups (which determine the templates a user has access to) and assigns users to the groups.
- 3. The administrator uses Report Portal to determine which investments, benchmarks, disclosure material, etc. can be used with each template.
- 4. Report Portal users at the administrator's firm access the templates to generate reports on demand, and circulate them as needed.

Report Portal requires a separate license from Morningstar Direct. For more information about this tool, please contact your Client Solutions Consultant at Morningstar.



The use of templates in Report Portal

eliminates the

time-consuming task

of formatting reports



### **How to Begin Learning Morningstar Direct**

Now that you have read a bit about each part of Morningstar Direct, you can begin practicing with it. Learning Morningstar Direct consists of the following two elements:

#### Overview

- 1. Learn about and practice creating lists, searches, and custom data sets. You will need these skills in different modules throughout the application.
  - Note: It is recommended you complete these training guides in the order listed, and complete all exercises in each one, as the exercises build on one another, and the work you complete in one guide could be referenced in another.
- 2. Use a workbook guide covering a set of workflows to learn how different parts of Morningstar Direct work together.

