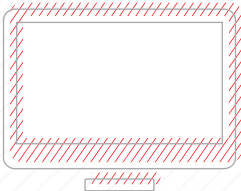
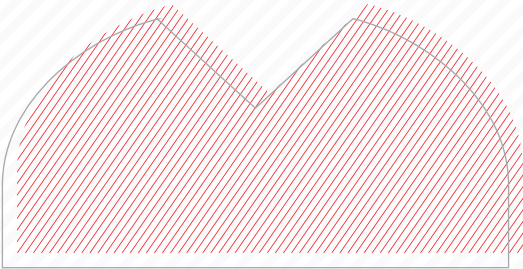
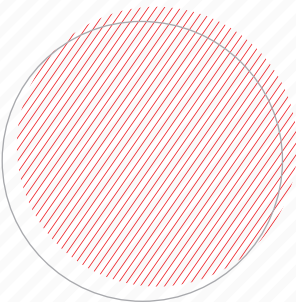
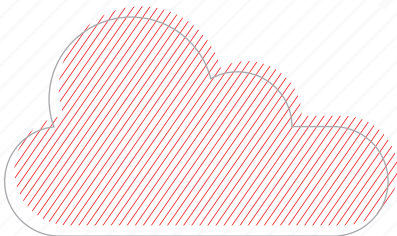
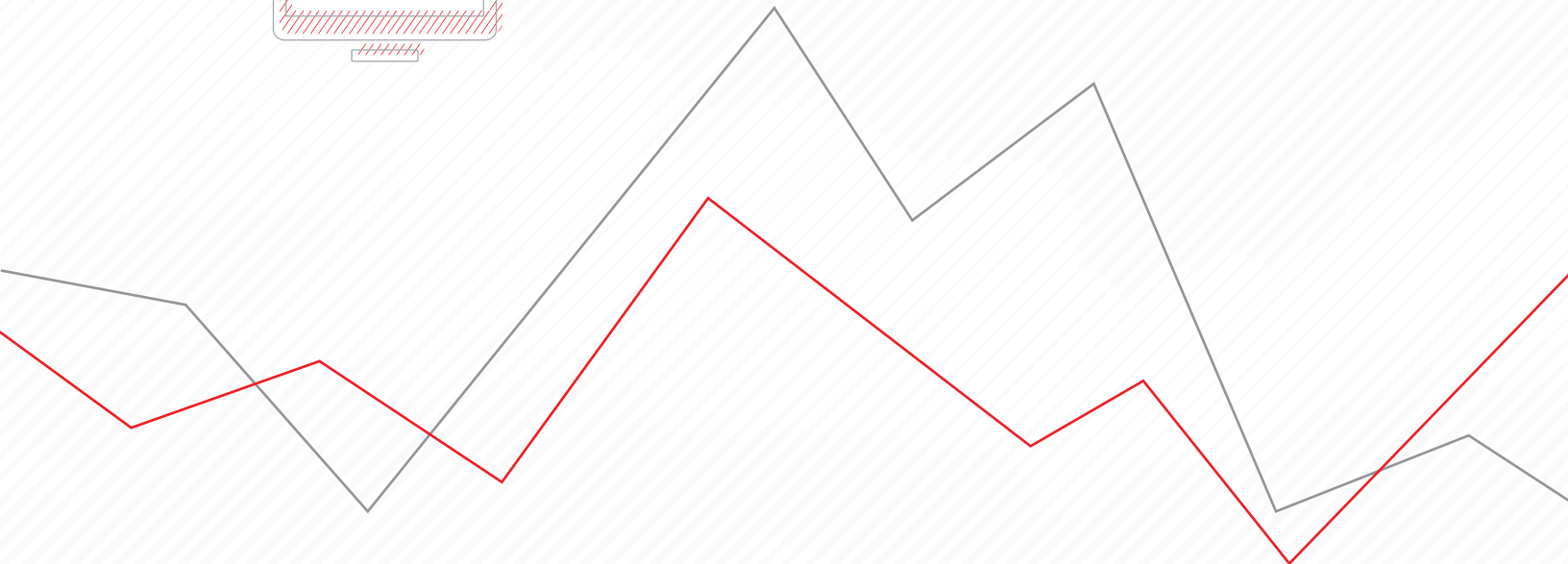


QuickStart Guide to Morningstar Direct

Onboarding Guide



MORNINGSTAR Direct



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QuickStart Guide to Morningstar DirectSM

Morningstar DirectSM 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.

Overview

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

- ▶ Basic navigation of the application, and
- ▶ What each module in Morningstar Direct does and why you would use it.

You can also check out our [role-based library](#) to select the training program that best describes your role.

Morningstar Direct offers a wealth of research and presentation capabilities.

Style Indexes	Value	% Change
▲ Large Value	1,979	+0.41
▲ Large Core	2,878	+0.59
▲ Large Growth	1,958	+0.82
▲ Mid Value	4,016	+0.10
▲ Mid Core	4,510	+0.23
▲ Mid Growth	3,314	+0.34
▼ Small Value	4,283	-0.04
▼ Small Core	5,491	+0.20
▼ Small Growth	2,805	+0.31

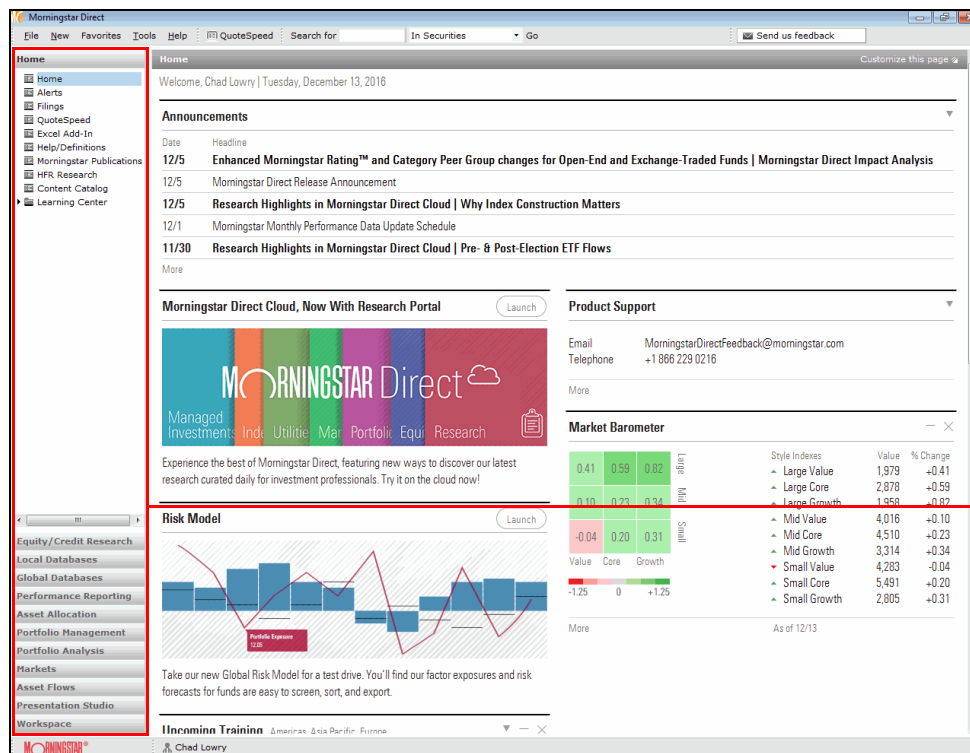
Navigating in Morningstar Direct

This section explains how Morningstar Direct is organized as an application, and how to move through the application.

Overview

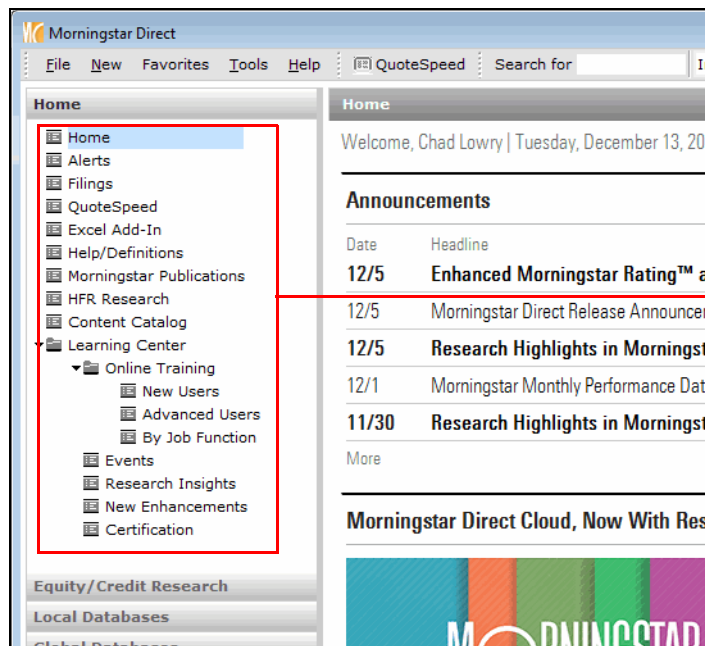
Morningstar Direct is composed of a number of modules. These modules can be used independently, but also interact with one another. After logging in to the application, the Home module is selected by default. The names of the other modules are seen in the left-hand side of the window. Click the name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

How is Morningstar Direct designed to be used?



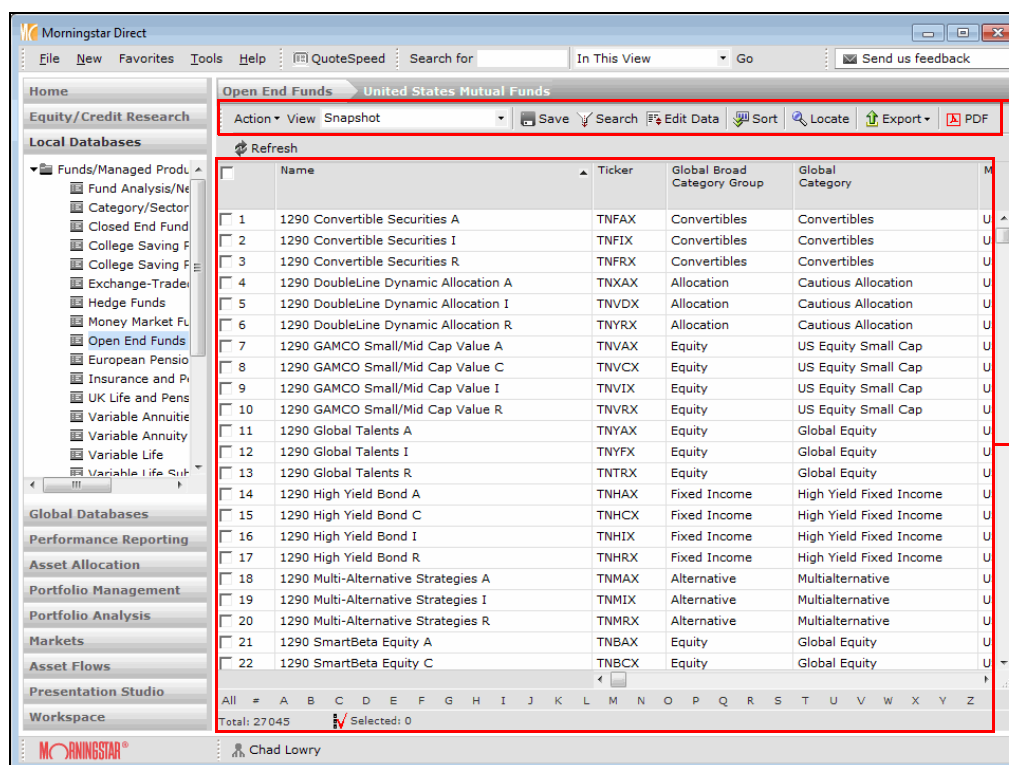
Although the Home module is selected by default, all of the other modules can be accessed via this pane.

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



Some pages might be nested under a folder or sub-folder.

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.



The Action menu and toolbar icons allow you to easily work with data in a grid view.

A grid view displays data similar to what you would see in a spreadsheet.

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.

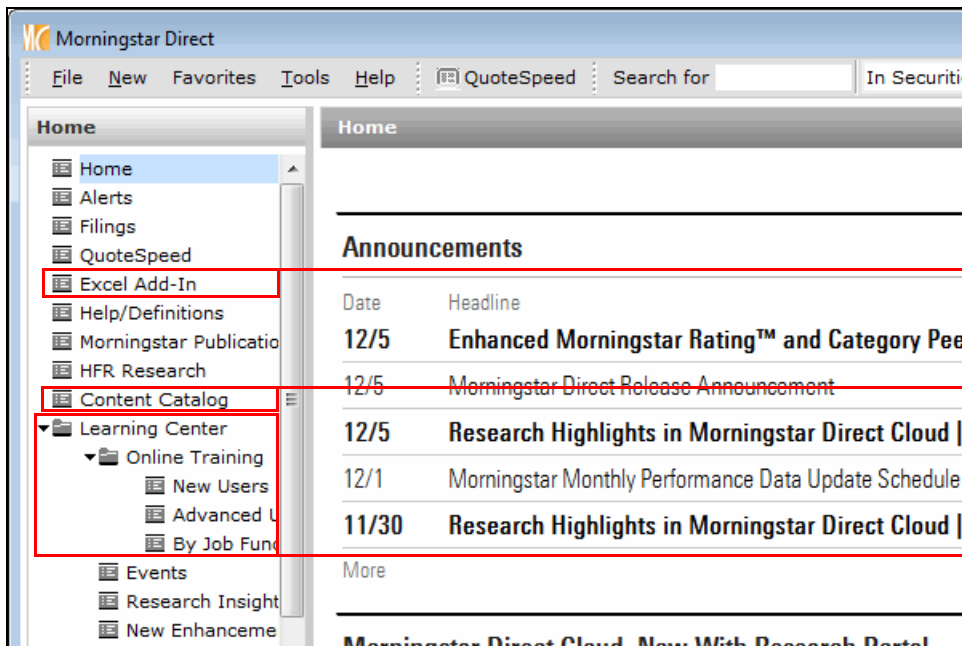
Overview

The Home module informs users about 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 users learn how to use Morningstar Direct and make the best use of your subscription.

How is this module intended to be used?

The Content Catalog page is another key aspect of the Home module. From here, users can set the entitlement privileges for various index providers to ensure access is granted to the proper level of data when comparing investments to indexes. It's best to work with your Customer Success Manager when 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 users to access data from the Morningstar databases for further calculation, formatting or charting. The Morningstar Excel Add-In has its own [onboarding guide](#) and [training guide](#).



The screenshot shows the Morningstar Direct Home page. The left sidebar contains a navigation menu with the following items: Home, Alerts, Filings, QuoteSpeed, Excel Add-In, Help/Definitions, Morningstar Publication, HFR Research, Content Catalog, Learning Center (expanded), Online Training, New Users, Advanced User, By Job Function, Events, Research Insights, and New Enhancements. The main content area displays an 'Announcements' section with a table of updates. Red boxes highlight the 'Excel Add-In' and 'Content Catalog' links in the sidebar, and the 'Learning Center' section. Red lines connect these highlights to callout boxes on the right.

Date	Headline
12/5	Enhanced Morningstar Rating™ and Category Peer
12/5	Morningstar Direct Release Announcement
12/5	Research Highlights in Morningstar Direct Cloud
12/1	Morningstar Monthly Performance Data Update Schedule
11/30	Research Highlights in Morningstar Direct Cloud

The Morningstar Excel Add-In can be installed from this page.

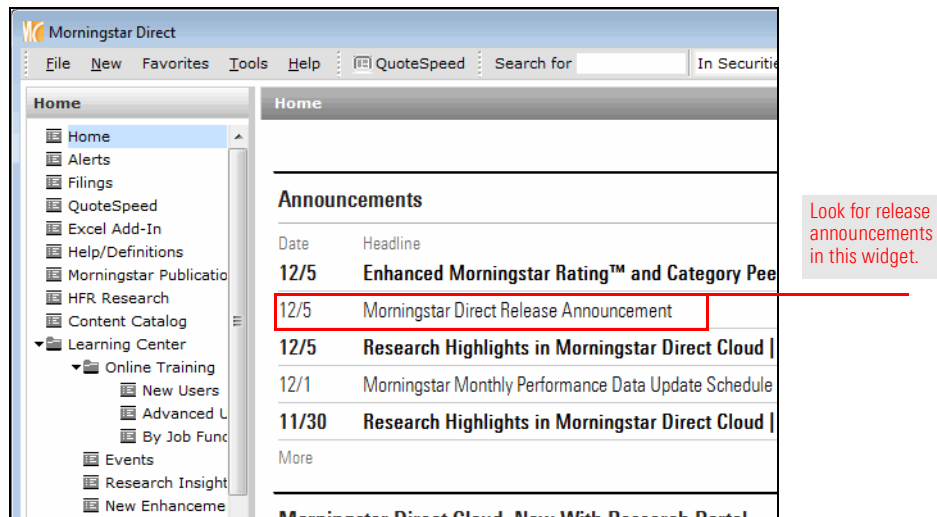
Setting up the Content Catalog page is a key step for new users.

Visit the Learning Center to learn about using Morningstar Direct.

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.

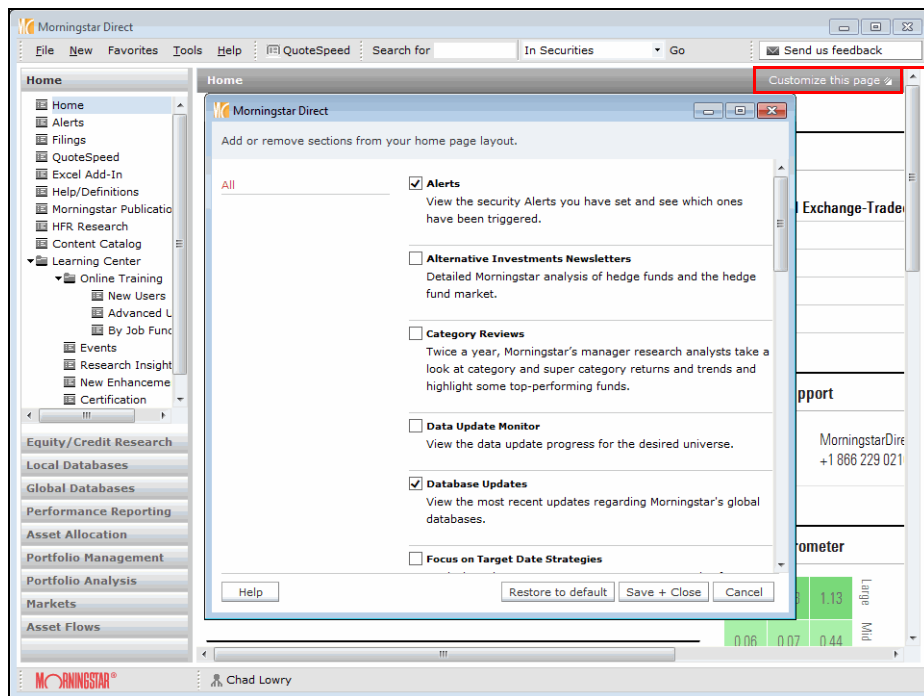
Where can updates to the application be found?

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



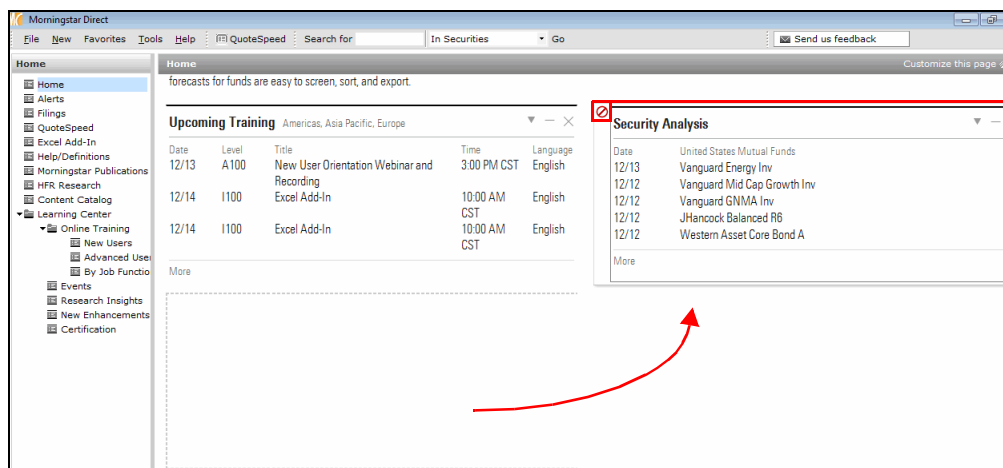
The position of some widgets (such as Announcements) are fixed on the Home page, and they cannot be removed or repositioned. Other widgets can be added, removed, and repositioned. To add or remove a widget, simply click the **Customize this page** button in the upper-right corner of the Home page. From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

Can the arrangement of the widgets on the Home page be changed?



Use this button and the accompanying dialog box to turn certain widgets on or off.

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



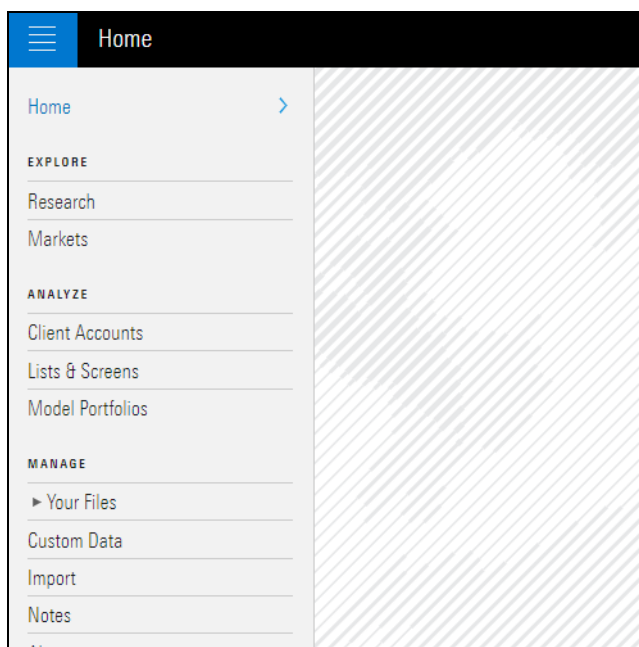
When this icon turns to a green checkmark, release the mouse button to place the widget in its new location.

Understanding the Equity/Credit Research Module

The Equity/Credit Research module surfaces insight from Morningstar on stocks, corporate fixed-income securities, earnings estimates, and more. Users looking for the latest Morningstar 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. This content is available from the web-based version of Morningstar Direct.

To access the equity or credit research content from the web-based version of Morningstar Direct, do the following:

1. Open a web browser, and go to <https://direct.morningstar.com>.
2. Log in using the same credentials you use to login to the desktop version of the application.
3. **Hover the cursor** over the in the top left corner, then select **Research**.

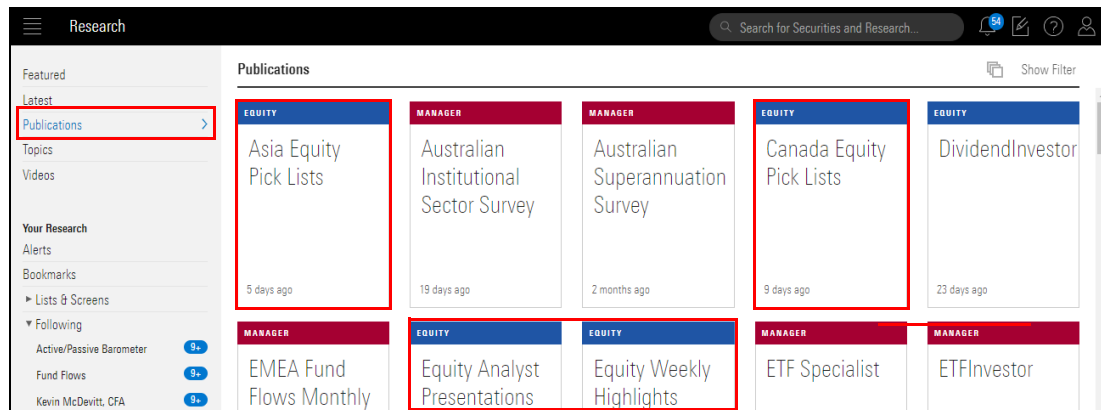


Overview

How do I find Equity/Credit research data in the web-based version of Morningstar Direct?

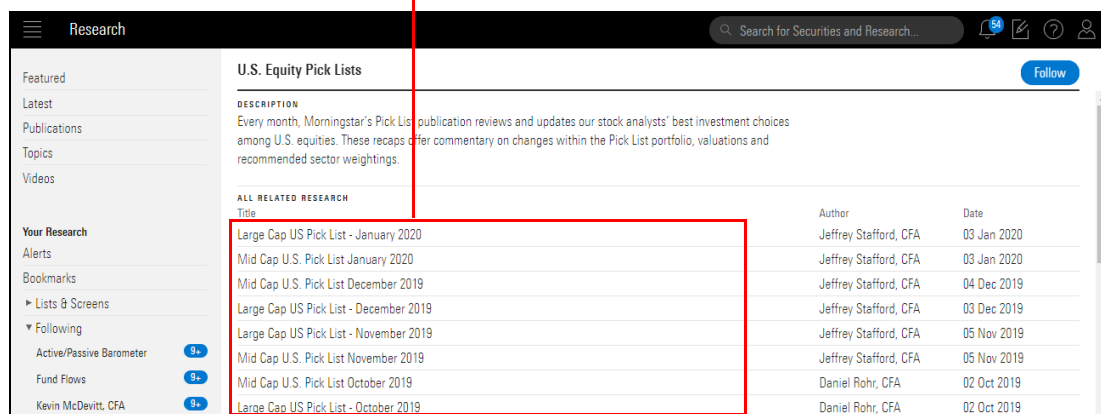
4. In the left-hand navigation pane, select **Publications**.
5. On the Publications page, click a **tile** related to either equity or credit research.

The Publications page offers a number of tiles related to equity and credit research.



6. Click an **article** to read it.

Click the name of an article to read it.



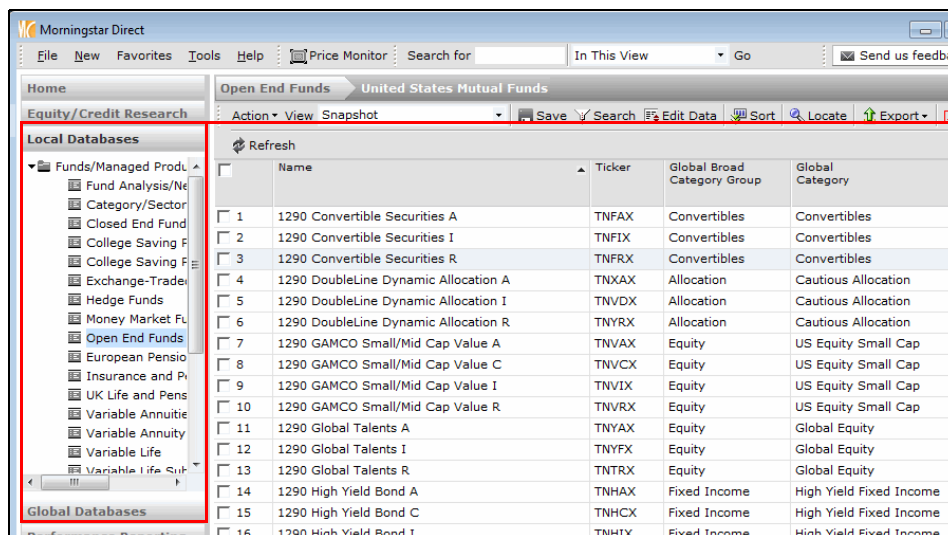
Understanding the Local and Global Databases Modules

The Local Databases and Global Databases modules allow users to find data points for a variety of investments, indexes, category averages, and more. The Local Databases module contains investments domiciled in the home country set in your application preferences, while the Global Databases module contains all global securities.

Overview

The Local Databases and Global Databases modules are used most often when a data point (for example, P/E Ratio, Annual Net Expense Ratio, or 3 Yr % Rank in Category) for an investment needs to be found quickly, without the need to see a customized data set, or view a saved list of investments.

How are these modules intended to be used?



	Name	Ticker	Global Broad Category Group	Global Category
1	1290 Convertible Securities A	TNFAX	Convertibles	Convertibles
2	1290 Convertible Securities I	TNFIK	Convertibles	Convertibles
3	1290 Convertible Securities R	TNFRX	Convertibles	Convertibles
4	1290 DoubleLine Dynamic Allocation A	TNXAX	Allocation	Cautious Allocation
5	1290 DoubleLine Dynamic Allocation I	TNVDX	Allocation	Cautious Allocation
6	1290 DoubleLine Dynamic Allocation R	TNVRX	Allocation	Cautious Allocation
7	1290 GAMCO Small/Mid Cap Value A	TNVAX	Equity	US Equity Small Cap
8	1290 GAMCO Small/Mid Cap Value C	TNVCX	Equity	US Equity Small Cap
9	1290 GAMCO Small/Mid Cap Value I	TNVIX	Equity	US Equity Small Cap
10	1290 GAMCO Small/Mid Cap Value R	TNVRX	Equity	US Equity Small Cap
11	1290 Global Talents A	TNYAX	Equity	Global Equity
12	1290 Global Talents I	TNYFX	Equity	Global Equity
13	1290 Global Talents R	TNTRX	Equity	Global Equity
14	1290 High Yield Bond A	TNHAX	Fixed Income	High Yield Fixed Income
15	1290 High Yield Bond C	TNHGX	Fixed Income	High Yield Fixed Income
16	1290 High Yield Bond I	TNHIX	Fixed Income	High Yield Fixed Income

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, users can create a search to look for either open-end funds or exchange-traded funds, but not both simultaneously. In the Workspace module, however, it is possible to create a search for 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; these are covered in [Understanding the Workspace Module on page 22](#).

Another aspect 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 in the former, but not the latter.

Understanding the Performance Reporting Module

Performance Reporting is specifically designed to monitor the performance of investments organized into groupings based on a user's classifications. For example, a user may want to see funds grouped by Morningstar Category, or all large-cap funds could be grouped together. Users 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. Users can also implement a scorecard using standardized values or custom grades to further monitor investments.

The Performance Reporting module allows users to build a custom report within Morningstar Direct where the rows of investments and columns of data points are defined. 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 users to add conditional formatting (that is., color) to rows or cells and includes a Scorecard feature to help analyze the information being displayed.

Creating a performance report in Morningstar Direct takes the following basic steps:

1. Select the investments to display on the report. This might involve the use of an existing list or search 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 should be included on the report? These might include an investment's ticker symbol, Morningstar Analyst Rating, or any of the other thousands of data points available 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.



1 Select the investments for the report.



2 Decide how the investments will be grouped together, what the investments on the report should be compared to, and select comparison and calculation benchmarks for the investments on the report.



3 Choose the time periods (trailing 1-year, rolling windows, etc...) to display and data points (Return, Category Rank) to display in each time period.



4 Choose any supplementary information you want to include outside of the time periods.



5 Optionally, apply conditional formatting to call out important information.



6 Optionally, use a scorecard to calculate results over time.

Overview

How is this module intended to be used?

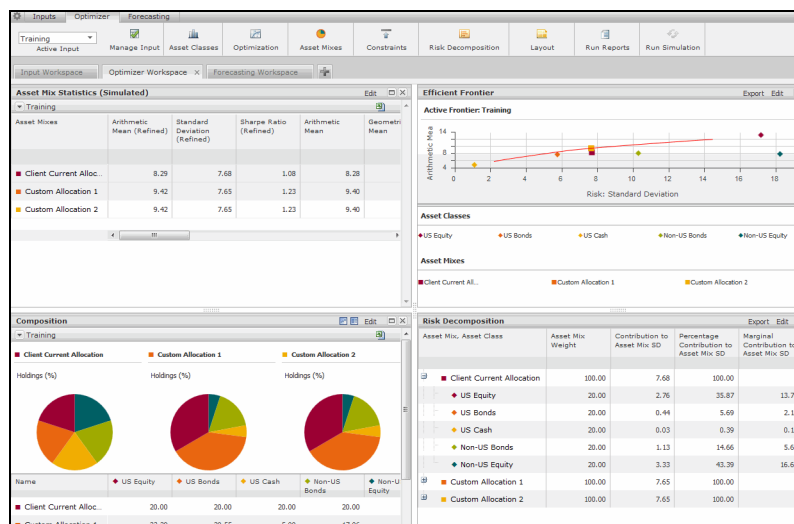
What are the basic steps involved in creating a performance report?

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 done in this module is actually performed in the cloud, at <https://assetallocation.morningstar.com>. A browser window opens automatically when certain capabilities of this module are accessed, and users need to login using the same credentials for the desktop version of Morningstar Direct.

Overview



Users can re-purpose the asset allocation models created here when building portfolios in the Portfolio Management module, which allows them to conduct Total Portfolio Attribution analysis in the Portfolio Analysis module.

The Asset Allocation module should be used when users need to perform one of the following use cases:

- ▶ traditional mean-variance optimization (MVO)
- ▶ liability-driven optimization, or
- ▶ to change the traditional asset allocation goals to focus on downside risk, multi-period returns, or other factors.

As the markets have shown, real-life finance is often more complex than the mathematical models used in the standard approaches to portfolio optimization. The methodology here from Morningstar includes the following benefits:

- ▶ 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.

How is this module intended to be used?

Understanding the Portfolio Management Module

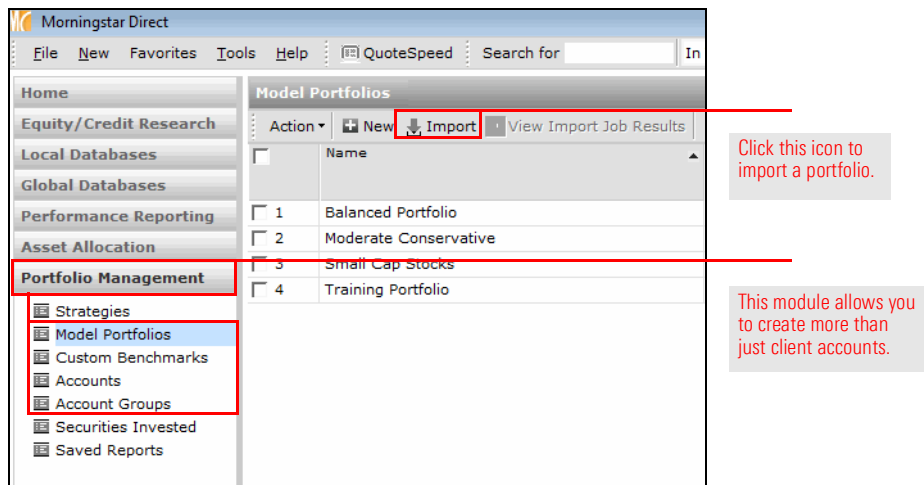
Portfolio Management is an area to create, analyze, and manage model portfolios, custom benchmarks, and accounts. Users can also create account groups (that is, structured account organizations) for easier account management.

When users 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. Portfolios and accounts can be manually created, or via a simple import process.

The portfolios or accounts created here can be reused in other parts of Morningstar Direct. For example, 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. Users also have the option to conduct either single-portfolio attribution for individual funds, or total portfolio attribution via the Portfolio Analysis module.

Overview

How is this module intended to be used?



Understanding the Portfolio Analysis Module

The attribution analysis capabilities in the Portfolio Analysis module allow users to see how decisions contributed to 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 users 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 users 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 <https://portfolioanalysis.morningstar.com>.

How is this module intended to be used?

Morningstar Sector		Holdings Display: Portfolio-only		Data Column 10/1/2016 - 12/31/2016			10/1/2016
Name	Ticker	Weights %	Return %	Attribution Effect	Weights %		
Level 1 2		Portfolio	Portfolio	Allocation %	Selection %	Active Ret%	Portfolio
Total		100.02	2.86	-0.34	3.70	3.36	100.05
Basic Materials		1.12	42.92	0.03	0.50	0.53	1.11
Cash		1.71	0.11	0.01	0.00	0.01	1.67
Communication Services		6.45	5.17	0.04	0.19	0.23	6.68
Consumer Cyclical		17.45	2.68	-0.22	0.12	-0.10	15.89
Consumer Defensive		6.72	-4.13	0.02	-0.22	-0.20	7.19
Energy		1.88	2.98	-0.02	0.09	0.07	1.40
Financial Services		4.49	9.77	-0.21	0.39	0.18	2.67
Healthcare		19.77	-2.97	-0.07	-0.04	-0.11	20.90
Industrials		6.90	17.11	0.14	0.62	0.76	6.67

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

With Total Portfolio Attribution from Morningstar Direct, users can identify the performance impact attributable to a strategic asset allocation policy itself. Then, examine the outcome of deliberate deviations from policy weights done to take advantage of market conditions. 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 users to measure the value delivered by consultants relative to the fees incurred.

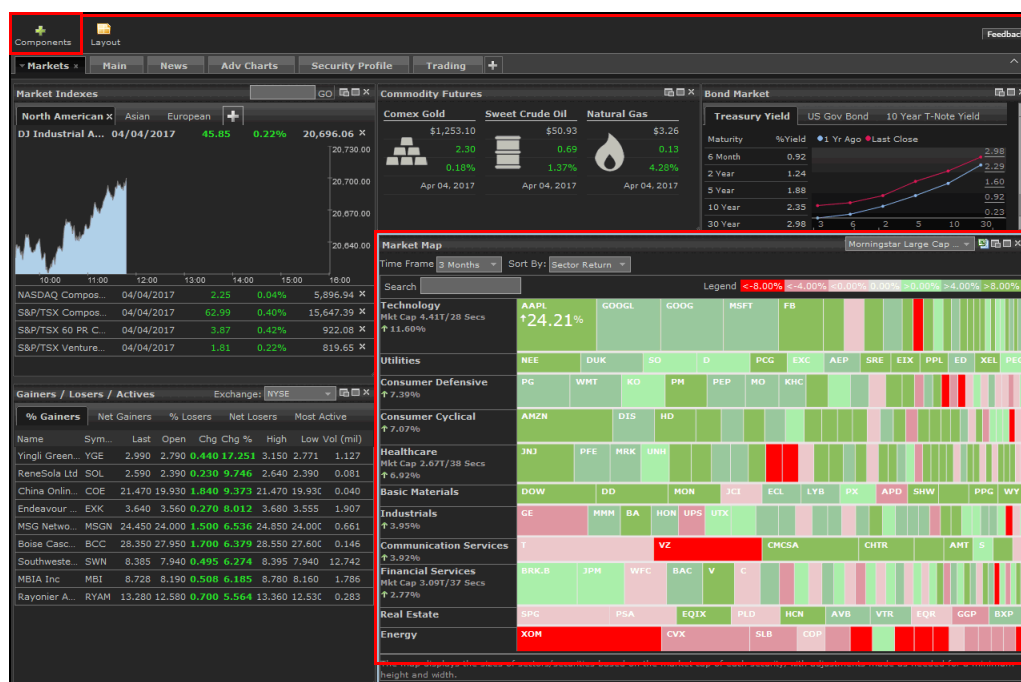
Understanding the Markets Module

Similar to the Asset Allocation and Portfolio Analysis modules, the Markets module is located online. The overview content on the markets can be accessed from this link:
<https://portfolioanalysis.morningstar.com/markets?mode=tool&fromPage=DirectCloud>

Overview

The Markets module allows users to gain a perspective of market performance by streaming real-time data. Follow all major exchanges with intraday quotes, charting, qualitative analysis, and the latest news. Use the pre-built workspaces, or create custom pages with selected components. Each component also offers a Settings button which is used to manipulate the data displayed in the component.

How is this module intended to be used?



This icon allows components to be added to the page.

A heat map shows the best and worst sectors of the market.

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.

The Asset Flows module enables users to evaluate investor behavior by monitoring the movement of money in and out of different asset classes and funds. The sooner it's known what investors are doing, the more quickly trends can be identified, or investors' needs can be responded to. Monthly PDF commentaries also enable users to stay current with industry trends. Asset flow data for U.S. open-end funds are typically published by the eighth business day after month-end.

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

Overview

How is this module intended to be used?

Name	1-Mo	QTD	YTD	1-Yr
Vanguard	0.51	0.51	6.79	7.68
American Funds	(0.13)	(0.13)	0.08	(0.17)
Fidelity Investments	(0.23)	(0.23)	(1.25)	(1.45)
T. Rowe Price	(0.24)	(0.24)	(0.40)	(0.30)
Franklin Templeton Investments	(1.06)	(1.06)	(9.13)	(11.01)
Dimensional Fund Advisors	0.68	0.68	7.04	7.97
Pimco	(0.20)	(0.20)	(3.95)	(8.19)
JPMorgan	(0.49)	(0.49)	(2.94)	(2.97)
BlackRock	(0.06)	(0.06)	(2.13)	(3.59)
MFS	(0.09)	(0.09)	1.25	1.56

This module breaks down asset flow data by multiple factors (fund family, Morningstar Category, etc.), and allowing users to retrieve flow data for saved lists (from the Workspace module).

Understanding the Presentation Studio Module

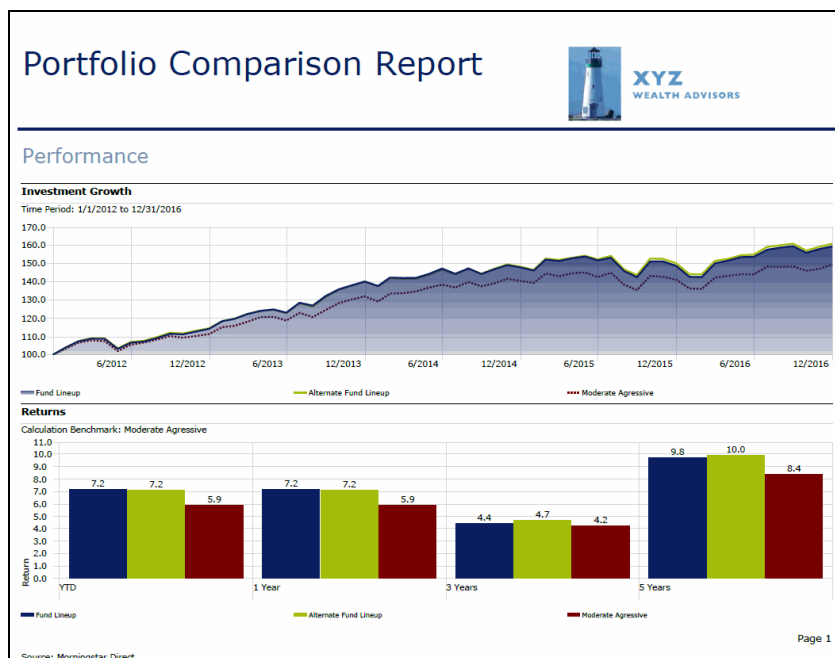
The insight gained from the rest of Morningstar Direct is meaningless unless it can clearly communicated. Presentation Studio allows users to easily create professional, custom-branded factsheets and presentations, appropriate for their audiences. Start with a pre-built Morningstar template, or design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

Overview

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

How is this module intended to be used?

Each report created, 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 dozens of templates developed by Morningstar experts, or users can build their own.

Understanding the Risk Model Analysis Module

Like the Asset Allocation and Portfolio Analysis modules, the Risk Model Analysis module in the desktop version of Morningstar Direct is a portal to an online version of the application. The Morningstar Risk Model capabilities there offer users access to a number of charts and tables reflecting data from the Morningstar Risk Models. Read more about [the Morningstar Risk Models here](#).

Overview

The Risk Model Analysis module offers users the ability to see the exposure of funds and portfolio objects to the dozens of factors in the Morningstar Risk Models, as well as the market premia associated with those factors. The Morningstar Risk Models incorporate thousands of stocks globally, as well as a variety of fixed-income investments. Users have access to a number of risk models based on a variety of geographies and currencies.

How is this module intended to be used?

Before launching the capabilities from the desktop version, users should first visit <https://direct.morningstar.com> and sign in using the same credentials used for the desktop edition of the application.

Login to the web-based version of Morningstar Direct, then use this button to access a part of the application dedicated to the risk model capabilities.

The screenshot displays the Morningstar Direct desktop application. On the left is a navigation pane with a sidebar menu. The 'Risk Model Analysis' option is highlighted with a red box. The main content area is titled 'Risk Model Launch Page' and includes a 'Quick Start' section with a 'Go' button, also highlighted with a red box. A red line connects the 'Go' button in the sidebar to the 'Go' button in the main content area. The main content area also features a 'Key Features' section and a 'Getting started with Risk Model' section with a video player.

Understanding the Workspace Module

The Workspace module contains the saved searches, lists, custom data sets, and notes users create in Morningstar Direct. This module is also used to create custom data points with values users define.

Overview

When 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 those found in the Local Databases and Global Databases modules; in the Workspace module, however, users can search for investments across multiple data universes (open-end funds, ETFs, and so on) rather than in just one universe as is the case with the Local Databases and Global Databases modules.

How is this module intended to be used?

The Workspace module allows users to see a variety of saved content.

	Name	Owner	Permission	Last Updated	# of Items
1	Morningstar Prospects Q4 2016	Morningstar	Read Only	2/21/2017	42
2	Imported List	Training Morningstar	Read/Write	3/21/2017	9
3	Multiple Investments	Training Morningstar	Read/Write	3/26/2017	7
4	Portfolio Analysis	Training Morningstar	Read/Write	4/4/2017	4
5	Sample List	Training Morningstar	Read/Write	4/4/2017	30
6	Single Investment List	Training Morningstar	Read/Write	3/20/2017	6
7	US Small Value 5 Star Funds & ETFs	Training Morningstar	Read/Write	3/22/2017	12

Be careful, however, not to use the Workspace module to the exclusion of other modules in Morningstar Direct. Avoiding the other modules, could result in creating more work for yourself and failing to take advantage of important features in those modules. For example, a list of funds is not a substitute for a portfolio of funds 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.