Morningstar Direct^{SM} Cloud Editions Release Notes November 7, 2018

This document describes the new features and enhancements in the Morningstar Direct^{SM} Cloud Editions, as follows:

Overview

You can now view fund-level regional and country data in an Equity Fund workbook by using the following new components:

▶ Global Revenue Map, and
▶ Revenue Exposure.

☞ Note: Both components are found in the Allocation section of the Component Library. A fund must have at least 20% of its assets in equities in order for the components to populate.

How can I access regional and country revenue data at the fund level?

The Global Revenue Map component can be displayed as a map (default) or a grid, as well as by region (default) or country.

The Revenue Exposure component can be displayed as a table (default) or a chart.
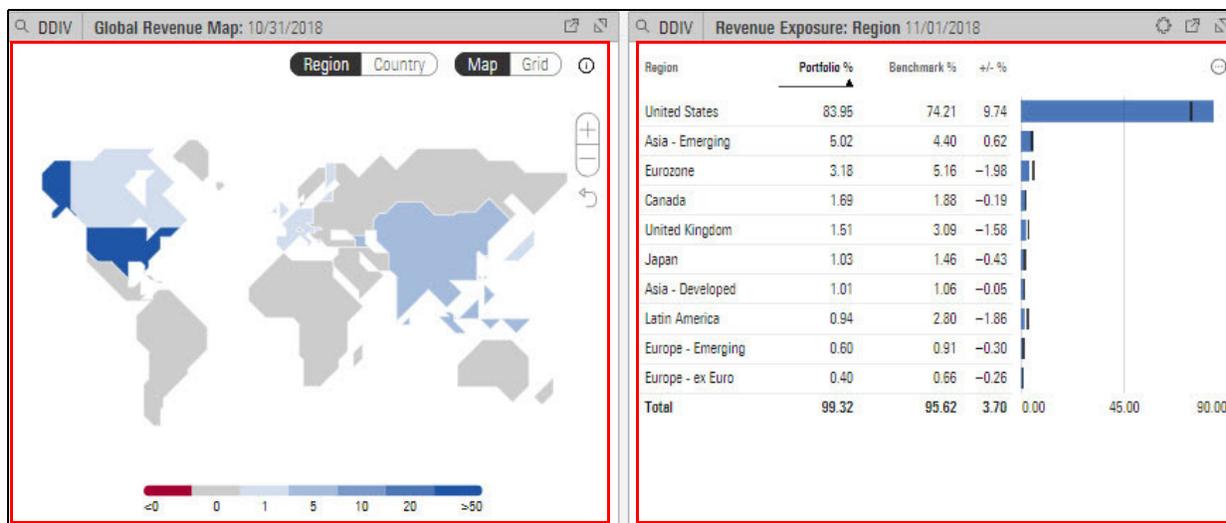
In the Morningstar Report for a fund, the Sustainability section (found in the Portfolio grouping) now reflects the recent changes to the Morningstar Sustainability Rating methodology. To learn more, please read the Morningstar Sustainability Rating Methodology.

What has changed in the Morningstar Report for a fund?

With this release, when you delete a list with attached alerts, or when a list with alerts is unshared with you, the alerts are also removed.

What happens to alerts when I delete a list?

You can now filter Morningstar Manager Research alerts by date and securities via the Alerts page in Morningstar Research. To learn more about this feature, please read the Leveraging Morningstar Research exercise guide.

How can I filter Morningstar Manager Research alerts?

You can now export data from a client account, custom benchmark, or model portfolio. If you have used conditional formatting and/or grouping in the portfolio object, those features are also exported with the data.

How can I export data from a portfolio object?
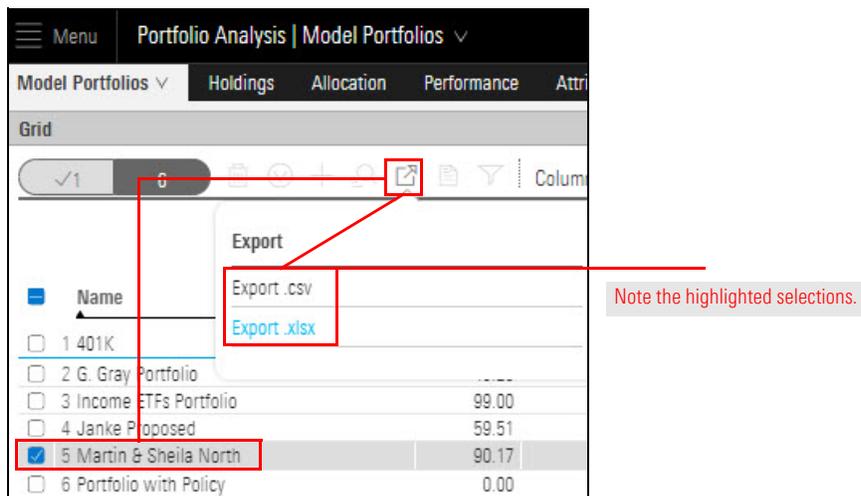
For exercises using this feature, please click here and here.

When considering a portfolio's holdings, different investment types default to displaying different primary return types, as described in the following table:

What return type is reflected in a portfolio's Holdings components?

Fund Type	Primary Return Type
Open-End Funds	Total Return
Money Market Funds	
Closed-End Funds	Market Return
Exchange-Traded Funds	
Separate Accounts	Gross Returns

The return type displayed in the Holdings Analysis, Holdings Correlation, and Holdings Plot components are described in the following table:

Component	Display
Holdings Analysis	The data displayed reflects each fund's primary return type. Because all return column headings include the words "Total Return," it's important to understand that closed-end funds and ETFs display market returns.
Holdings Correlation	A fund's primary return type is used to calculate correlation, but is not displayed in the component.

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How can I attach an investment policy to a portfolio object?

Component	Display
Holdings Plot (Chart View)	On the Component Settings menu, the Return Type is initially set to Default. Keep the following in mind: ▸ When the Return Type is Default, each investment's display of return data reflects its primary return type, and ▸ If you select a different Return Type option (Total, Market, or Gross), every investment's data display is driven by that return type. When you hover the cursor over a circle representing a fund, the legend includes the words "Total Return," even though the data driving the display reflects the Return Type option selected in Component Settings.
Holdings Plot (Table View)	On the Component Settings menu, the Return Type is initially set to Default. Keep the following in mind: ▸ When the Return Type is Default, each investment's display of return data reflects its primary return type, and the Return column heading includes the words "Primary Return." ▸ In Component Settings, if you select Total or Market as the Return Type, every investment's return data reflects the selected return type, and the Return column heading includes the word "Return," and ▸ In Component Settings, if you select Gross as the Return Type, every investment's gross return data is displayed, and the Return column heading includes "Gross Return."

How can I attach an investment policy to a portfolio object?

In the Portfolio Settings window, you can now apply an investment policy to a portfolio object. Assigning a policy does not set the policy as a benchmark; the policy is used when conducting a total portfolio attribution (TPA).

☞ Note: To use a policy as a benchmark, select it as Benchmark 1 or Benchmark 2.
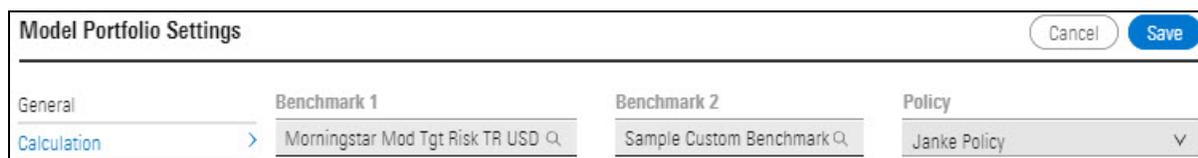
To learn more about this feature, please read Creating Model Portfolios, Custom Benchmarks, and Investment Policies.

In the Grid Batch Reports folder, when a report fails, an icon now appears to the right of the word "Failed." Click the ? icon to open a dialog box containing information about the batch failure.

How can I learn why a batch failed?
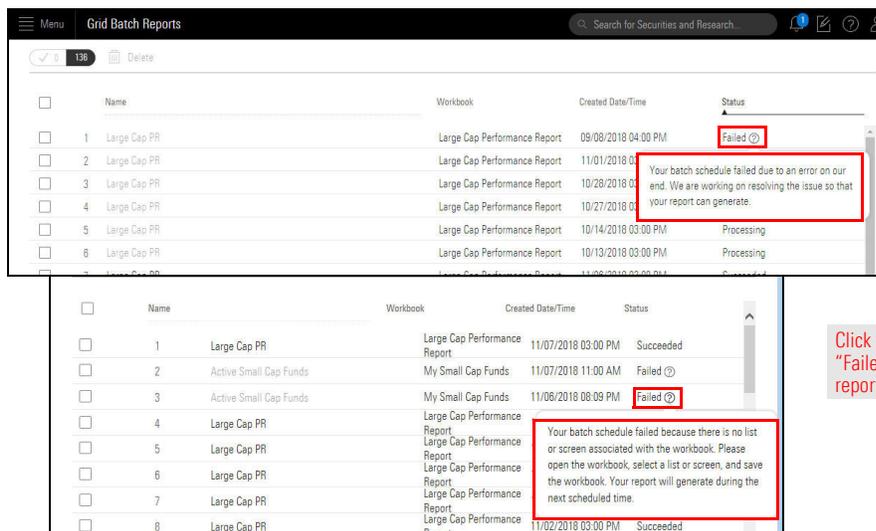
Click the ? icon to the right of "Failed" to read why a batch report did not generate.

To learn how to create grid batch reports, please read Using the Peer Analytics Tools to Conduct Deep Investment Analysis and Comparisons.

The following calculated fixed-income data points are now available in the Grid View:

- ▶ Effective Duration
- ▶ Effective Duration - Percent of Assets
- ▶ Average Effective Duration (Calculated)
- ▶ Average Modified Duration (Calculated)
- ▶ Modified Duration
- ▶ Modified Duration - Percent of Assets (Calculated)
- ▶ Average Effective Maturity (Calculated)
- ▶ Effective Maturity
- ▶ Effective Maturity - Percent of Assets
- ▶ Average Yield to Maturity (Calculated)
- ▶ Yield to Maturity
- ▶ Yield to Maturity - Percent of Assets
- ▶ Average Price, and
- ▶ Price-Percent of Assets.

What new and updated fixed-income data points are available?

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How can I identify which funds disclose their intention to include or
exclude ESG impacts in their investment process?

To reveal a fund's intention to incorporate specific areas of ESG impact or exclude certain industries in their investment strategy, new data points have been added. These data points can be used to build a screen or a custom column set in the Grid View. The new data points are listed in the following table:

☞ Note: Funds can disclose multiple attributes at once.

This broad grouping...	Includes these data points...
Sustainable Investment - ESG Fund	ESG Fund - Overall
	ESG Incorporation
	ESG Engagement
Sustainable Investment - Environmental Sector	Environmental Sector - Overall
	Renewable Energy
	Water-Focused
	General Environmental Sector
Sustainable Investment - Impact Fund	Impact Fund - Overall
	Gender and Diversity
	Low Carbon/Fossil-Fuel Free
	Community Development
	Environmental
	Other Impact Themes

How can I identify which funds disclose their intention to include or exclude ESG impacts in their investment process?

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Why can't I access the Sustainability Ratings Analysis component
for portfolio objects?

This broad grouping...	Includes these data points...
Employs Exclusions	Uses Norms-Based Screening
	Excludes Abortion/Stem Cells
	Excludes Adult Entertainment
	Excludes Alcohol
	Excludes Animal Testing
	Excludes Controversial Weapons
	Excludes Fur & Specialty Leather
	Excludes Gambling
	Excludes GMOs
	Excludes Military Contracting
	Excludes Nuclear
	Excludes Palm Oil
	Excludes Pestcidides
	Excludes Small Arms
	Excludes Thermal Coal
	Excludes Tobacco
	Excludes Other
	Excludes - Overall

Why can't I access the Sustainability Ratings Analysis component for portfolio objects?

Due to the 10/31/2018 change to the Morningstar Sustainability Rating methodology, the Sustainability Ratings Analysis component is temporarily unavailable. It will be added back in a future upgrade, once it is compatible with the new methodology.

Why can't I access Historical Sustainability Ratings?

The Historical Sustainability Ratings were removed from view in Morningstar Cloud on October 29th. They were originally added to the product in July 2018. We plan to re-introduce this historical data set across our products in the future; the delivery date for this offering is not yet set as we anticipate further updates to our methodology after the adoption of Sustainalytics' new ESG Corporate Risk Rating in 2019.

A data processing issue occurred, related to the Equity Style Box for Portfolios during the period April 30, 2018 through September 29, 2018. Analysis of the issue showed no material impact to portfolios or their style boxes.

What has changed in the Morningstar Style Box?

The issue involved long-term projected earnings growth for stocks, which is one of the inputs to the Morningstar Style Box. Because of this data point's relatively long-term and stable nature, and because changes to this data point are diffused across multiple portfolio holdings, impact analysis by Morningstar showed no material change to portfolio style box assignments during this period (although some change may be seen in a few cases).

Changes to long-term projected earnings growth (LTEG) may be displayed as a delay in movement in the style box assignment change for the fund as shown in the following table:

Portfolio Date	Style Box Assignment (Old Data)	Style Box Assignment (Corrected Data as of 6/30/2018)
3/31/2018	Small Value	Small Value
6/30/2018	Small Value	Small Blend
9/30/2018	Small Blend	Small Blend

This is most likely to occur in the following areas:

Type of Fund	Impact
Funds holding smaller-cap stocks	These stocks generally have lower sell-side analyst coverage. Analysts adding or dropping coverage often have a greater affect on consensus estimates, particularly when the consensus is comprised of a single analyst (a common occurrence in the coverage of smaller-cap firms).
Funds with higher concentrations in energy and communications stocks	During the period in question, volatile energy prices resulted in more changes to LTEG expectations for energy-related stocks. Communication stocks tend to have smaller market capitalizations. Impact analysis by Morningstar showed a greater effect on the energy sector and Canadian funds (which have a higher percentage of energy holdings).

Please contact your Custom Relationship Manager with questions.

The following data points from the Private Funds universe have been added:

- Net Expense Ratio, and
- Net Expense Ratio Effective Date.

The following data points from the Separate Accounts universe have been added:

- Gross Expense Ratio, and
- Net Expense Ratio.

The following South Africa asset class data points have been added:

- Africa Bond (Net)
- Africa Equity (Net)
- Africa Property (Net)
- Africa Cash (Net)
- Africa Other (Net). and
- Africa Unit Trust (Net).

Data points in the Bonds universe have been added as described in the following table:

Group: Snapshot		
Name	First Coupon Date	Subject to AMT
Company Name	Accrual Start Date	Use of Proceeds
CUSIP	Day Count	Insured
ISIN	Issue Size	Insurer
Super Sector	Amount Outstanding	Last Price Date
Primary Sector	Par Value	Close Price
Secondary Sector	Issuer Name	Yield to Maturity
Domicile	Rule 144A	Modified Duration
Base Currency	Tax Status	Volume
Maturity Date	Issuer State	Yield to Call (YTC)
Coupon Rate	Debt Ranking	Current Yield
Coupon Type	Convertible	Tax Equivalent Yield
Coupon Frequency	Callable	Treasury Yield

**What data points
have been added to the
Morningstar Excel Add-In?**

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In the Morningstar Excel Add-In, what data points have been retired?

Payment Currency	Putable	Yield Spread
Inception Date	Advance Refunding	Benchmark
Group: Return (Mo-End)		
Effective Duration	Total Ret Annlzd 3 Yr (Mo-End)	Total Ret YTD (Mo-End)
Return Date (Mo-End)	Total Ret Annlzd 5 Yr (Mo-End)	Total Ret Inception (Mo-End)
Total Ret 1 Yr (Mo-End)	Total Ret Annlzd 10 Yr (Mo-End)	
Group: Return (Qtr-End)		
Return Date (Qtr-End)	Total Ret Annlzd 5 Yr (Qtr-End)	Total Ret YTD (Qtr-End)
Total Ret 1 Yr (Qtr-End)	Total Ret Annlzd 10 Yr (Qtr-End)	Total Ret Inception (Qtr-End)
Total Ret Annlzd 3 Yr (Qtr-End)		

In closed-end funds, the following data points have been retired:

In the Morningstar Excel Add-In, what data points have been retired?

- ▶ As at Date (Earning Period 1 Month)
- ▶ As at Date (Earning Period 3 Months)
- ▶ Average Weighted Maturity
- ▶ Bonds Maturing 0 - 5 Years
- ▶ Bonds Maturing 10+ Years
- ▶ Bonds Maturing 5 - 10 Years
- ▶ Bonds Maturing 5+ Years
- ▶ Current Life of Dividend Reserves (Months) (Earning Period 1 Month)
- ▶ Current Life of Dividend Reserves (Months) (Earning Period 3 Months)
- ▶ Dist Cover on Dist Paid Over Period (Earning Period 1 Month)
- ▶ Dist Cover on Dist Paid Over Period (Earning Period 3 Months)
- ▶ Gross Rev (Earning Period 3 Months)
- ▶ Interest (Earning Period 1 Month)
- ▶ Interest (Earning Period 3 Months)
- ▶ Latest Dividend Shortfall (Earning Period 1 Month)
- ▶ Latest Dividend Shortfall (Earning Period 3 Months)
- ▶ Latest Dividend Shortfall (Earning Period 6 Months)
- ▶ Leveraged Adjusted Avg Weighted Duration
- ▶ Net Inv Inc post Prefs (Earning Period 1 Month)
- ▶ Net Inv Inc post Prefs (Earning Period 3 Months)
- ▶ Net Inv Inc pre Prefs (Earning Period 1 Month)
- ▶ Net Inv Inc pre Prefs (Earning Period 3 Months)

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In the Morningstar Excel Add-In, what data points have been retired?

- ▶ Dist Cover on Latest Dist (Earning Period 1 Month)

- ▶ Dist Cover on Latest Dist (Earning Period 3 Months)

- ▶ Dividend Shortfall over Reporting Period (Earning Period 1 Month)

- ▶ Dividend Shortfall over Reporting Period (Earning Period 3 Months)

- ▶ Earn Rate on Divi Paid over Period (Earning Period 1 Month)

- ▶ Earn Rate on Divi Paid over Period (Earning Period 3 Months)

- ▶ Earn Rate on Latest Divi (Earning Period 1 Month)

- ▶ Earn Rate on Latest Divi (Earning Period 12 Months)

- ▶ Earn Rate on Latest Divi (Earning Period 3 Months)

- ▶ Earn Rate on Latest Divi (Earning Period 6 Months)

- ▶ EPS p/mth post Prefs (Earning Period 1 Month)

- ▶ EPS p/mth post Prefs (Earning Period 3 Months)

- ▶ EPS p/mth pre Prefs (Earning Period 1 Month)

- ▶ EPS p/mth pre Prefs (Earning Period 3 Months)

- ▶ EPS post Prefs (Earning Period 1 Month)

- ▶ EPS post Prefs (Earning Period 3 Months)

- ▶ EPS pre Prefs (Earning Period 1 Month)

- ▶ EPS pre Prefs (Earning Period 3 Months)

- ▶ Expenses (Earning Period 1 Month)

- ▶ Expenses (Earning Period 3 Months)

- ▶ Net Unrealized Cap Gain %NAV (Earning Period 1 Month)

- ▶ Net Unrealized Cap Gain %NAV (Earning Period 3 Months)

- ▶ Non Leveraged Adjusted Avg Weighted Duration

- ▶ Non Leveraged Adjusted Effective Duration

- ▶ Non Leveraged Adjusted Modified Duration

- ▶ Paid from NII to Prefs (Earning Period 1 Month)

- ▶ Paid from NII to Prefs (Earning Period 3 Months)

- ▶ Period (mths) (Earning Period 1 Month)

- ▶ Period (mths) (Earning Period 3 Months)

- ▶ Rlzd Cap Gain(m) (Earning Period 1 Month)

- ▶ Rlzd Cap Gain(m) (Earning Period 3 Months)

- ▶ Rlzd Cap Gain(p/s) (Earning Period 1 Month)

- ▶ Rlzd Cap Gain(p/s) (Earning Period 3 Months)

- ▶ UNII (m) (Earning Period 1 Month)

- ▶ UNII (m) (Earning Period 3 Months)

- ▶ UNII Div Cover (Earning Period 1 Month)

- ▶ UNII Div Cover (Earning Period 3 Months)

- ▶ UNII Div Cover (Earning Period 6 Months)

- ▶ UNII per Shr (Earning Period 1 Month)

- ▶ UNII per Shr (Earning Period 3 Months)

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In the Morningstar Excel Add-In, what has changed in the GICS
long rescaled data points?

- ▶ Exptd Life UNII(mths) (Earning Period 1 Month)
- ▶ Exptd Life UNII(mths) (Earning Period 3 Months)
- ▶ Exptd Life UNII(mths) (Earning Period 6 Months)
- ▶ Gross Rev (Earning Period 1 Month)

- ▶ Unrlzd Cap Gain(m) (Earning Period 1 Month)
- ▶ Unrlzd Cap Gain(m) (Earning Period 3 Months)
- ▶ Unrlzd Cap Gain(p/s) (Earning Period 1 Month)
- ▶ Unrlzd Cap Gain(p/s) (Earning Period 3 Months)

For consistency, the short names of GICS long rescaled data points have been changed, as described in the following table:

Long Name	New Short Name	Old Short Name
GICS Media % (Long Rescaled)(Discontinued)	GICS_Media_Discontinued	GICS_Media
GICS Communication Services % (Long Rescaled)	GICS_Communication_Services	GICS_Communication_Services01721285
GICS Independent Power & Renewable Electricity Producers % (Long Rescaled)	GICS_Independent_Power_Renewable_Electricity_Producers	GICS_Independent_Power_Renewable_Electricity_Producers_%_Long_Rescaled
GICS Media % (Long Rescaled)	GICS_Media	GICS_Media_Long_Rescaled
GICS Entertainment % (Long Rescaled)	GICS_Entertainment	GICS_Entertainment_Long_Rescaled
GICS Interactive Media & Service % (Long Rescaled)	GICS_Interactive_Media_Service	GICS_Interactive_Media_Service_Long_Rescaled

In the Morningstar Excel Add-In, what has changed in the GICS long rescaled data points?

The universe CEF Peer Group Index (PGI) has been replaced with the universe Closed End Funds.

In the Morningstar Excel Add-In, what has changed in the Peer Group Indexes?

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In the Morningstar Excel Add-In, how can I show market value
and shares for portfolios?

Prior to this release, only portfolio weight was available for portfolio holdings. Now you can also access market value and shares for portfolio holdings.

In the Morningstar Excel Add-In, how can I show market value and shares for portfolios?