Morningstar Direct **Portfolio Analysis & Equity Attribution**

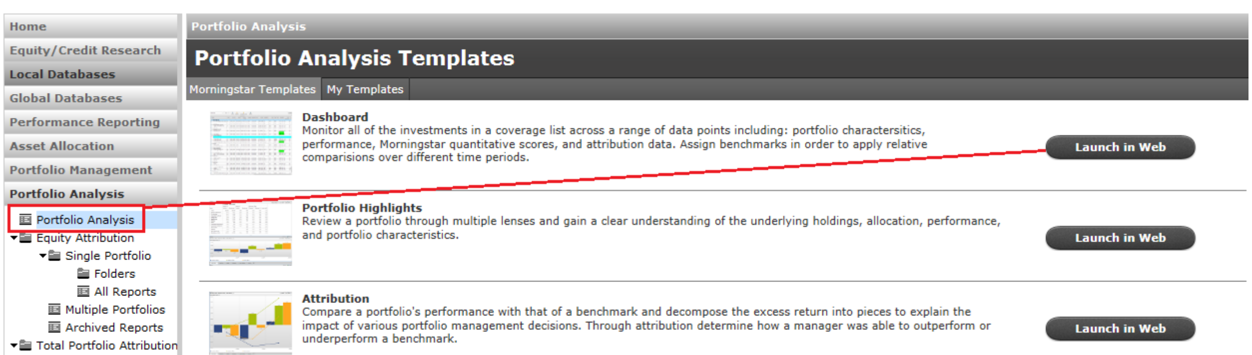
Portfolio Analysis is Morningstar Direct's web-based solution for manager research and due diligence. This tool will provide you with the data, charts, and reports that you require to evaluate and monitor managed investments. Access Portfolio Analysis from your Internet browser or Morningstar Direct and use holdings-based analysis to determine the drivers of an investment's performance, analyze competitors' portfolios, and create PDF reports.

Outline

- Access Portfolio Analysis in Morningstar Direct
- View Multiple Portfolios on Your Dashboard
- Discover Why an Investment Out- or Under-Performed
- Save Your New Custom Template
- Share Your Analysis with Colleagues
- Create Branded Factsheets via Presentation Studio
- More Training Resources

Access Portfolio Analysis in Morningstar Direct

1. In Morningstar Direct, Portfolio Analysis is listed on the left panel. Click on Portfolio Analysis to open the templates that are available for all Direct users. Next, select *Launch in Web* to open your new Dashboard, found on top of this list of templates.



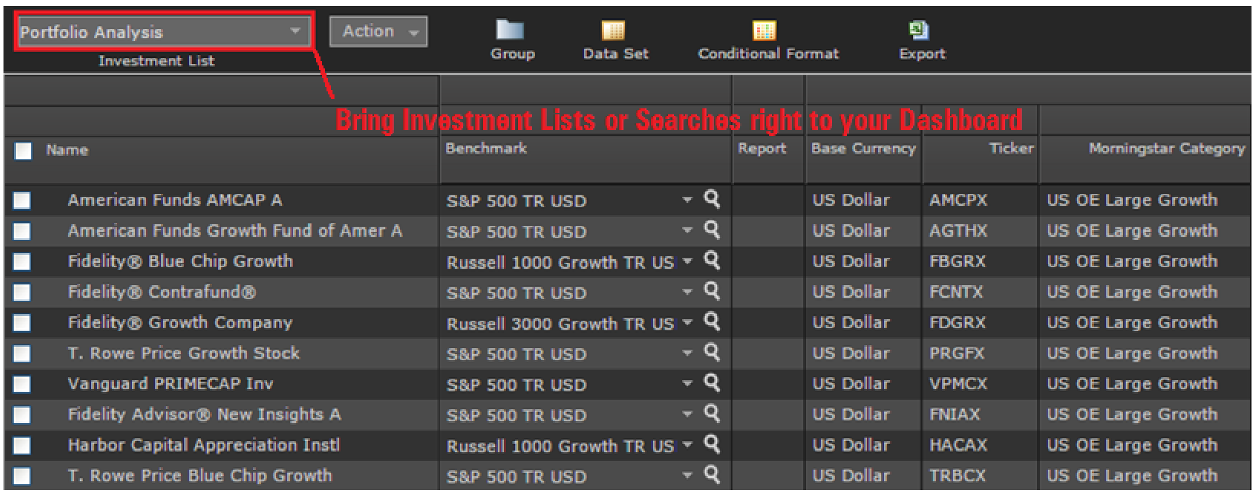
2. Using your preferred Internet browser, you may also open [Portfolio Analysis](#) directly in the web. For the fastest calculation speeds, please use the most up-to-date version for your browser. Note that if you prefer Internet Explorer, you must be on version IE9 or later.

Morningstar Direct **Portfolio Analysis** for **New Users**

View Multiple Portfolios on Your Dashboard

1. Your Internet browser will open and first-time visitors will enter their Direct log-in credentials. Portfolio Analysis will then load and display the Dashboard. Click on the *Investment List* dropdown in the header and add your preferred list. If you have not previously created a list in Direct, click on the *Action* dropdown to build a new list. Your Dashboard can include mutual funds, ETFs, separate accounts, or any portfolio that has holdings in Morningstar Direct's local and global databases. You may also include custom portfolios that have been imported into Direct.

In this example, the investment list will contain Large Cap Growth funds with net assets greater than $20 billion.



Name	Benchmark	Report	Base Currency	Ticker	Morningstar Category
American Funds AMCAP A	S&P 500 TR USD		US Dollar	AMCPX	US OE Large Growth
American Funds Growth Fund of Amer A	S&P 500 TR USD		US Dollar	AGTHX	US OE Large Growth
Fidelity® Blue Chip Growth	Russell 1000 Growth TR US		US Dollar	FBGRX	US OE Large Growth
Fidelity® Contrafund®	S&P 500 TR USD		US Dollar	FCNTX	US OE Large Growth
Fidelity® Growth Company	Russell 3000 Growth TR US		US Dollar	FDGRX	US OE Large Growth
T. Rowe Price Growth Stock	S&P 500 TR USD		US Dollar	PRGFX	US OE Large Growth
Vanguard PRIMECAP Inv	S&P 500 TR USD		US Dollar	VPMCX	US OE Large Growth
Fidelity Advisor® New Insights A	S&P 500 TR USD		US Dollar	FNIAX	US OE Large Growth
Harbor Capital Appreciation Instl	Russell 1000 Growth TR US		US Dollar	HACAX	US OE Large Growth
T. Rowe Price Blue Chip Growth	S&P 500 TR USD		US Dollar	TRBCX	US OE Large Growth

Note that the default calculation limit for investments on your Dashboard is 25. This limit was put in place due to the intense nature of holdings-based calculations on Morningstar's servers. If you would like to increase this limit to 50, please contact your Client Solutions Consultant. There is no fee for this request.

2. Before we begin to analyze the investments, ask yourself, "What benchmark do I want to compare this portfolio against?" This decision is important for calculations that compare a portfolio to a benchmark, such as attribution and Active Share. In many situations, you may prefer the Primary Prospectus Benchmark, which is the default. You can also choose another investment, market index, Morningstar index, or the Morningstar Category Average for comparison.

Note that using a market index in your analysis requires constituents access with the respective index providers. To learn more about your firm's entitlements, visit the *Content Catalog*, found in the Home folder in Morningstar Direct. If your firm does not receive access to certain index providers, consider using the Morningstar Index or ETF Proxy. All Direct clients receive constituents access for these portfolios.

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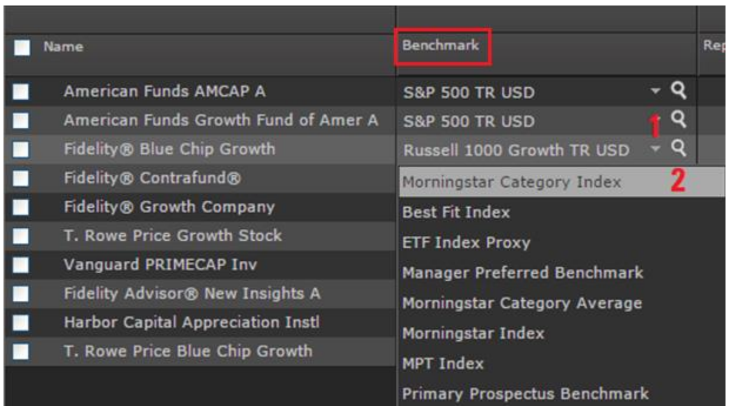
There are three options for determining your benchmarks:

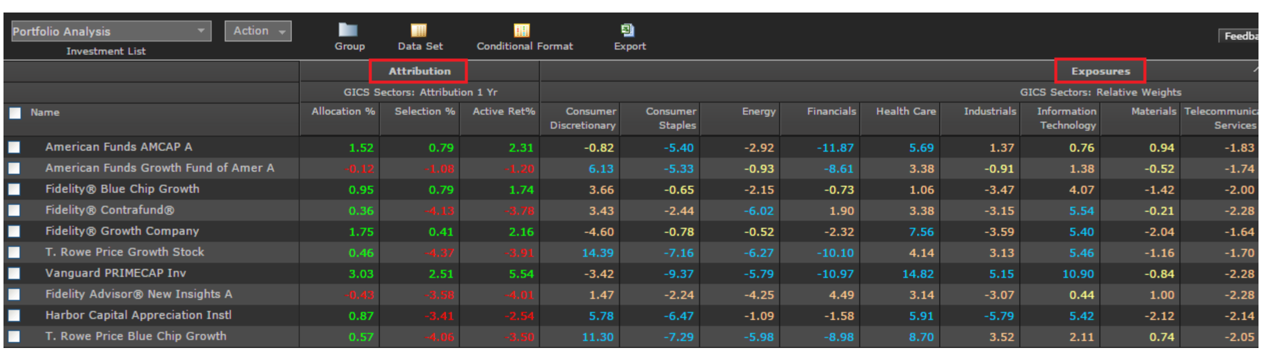
1. Click on the dropdown arrow in the benchmark cell and choose from common choices.
2. Click on the magnifying glass to search for a specific market index from the Morningstar database, which offers over 10,000 global market indexes with holdings.
3. In your Global Settings, found after clicking on the icon in the footer, choose your Default Benchmark settings. This feature allows you to choose different benchmark types, ordered by priority, and select the most relevant benchmark with holdings for further analysis. *(Not seen below)*



Note that you can also select a Custom Benchmark that was previously created in *Portfolio Management*.

3. Choose your Data Set. Data Set The default set of data columns on your Dashboard is intended to show quarterly highlights for a list of equity portfolios. To focus portfolio characteristics, exposures, attribution, or active share, click on the Data Set icon, then Open. You will see a list of custom and Morningstar data sets.

In the *Manager Research* Data Set, you will find attribution calculations and relative-weight exposures for each portfolio. Conditional formatting is used to highlight trends.

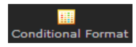


Portfolio Analysis | Action | Group | Data Set | Conditional Format | Export | Feedba

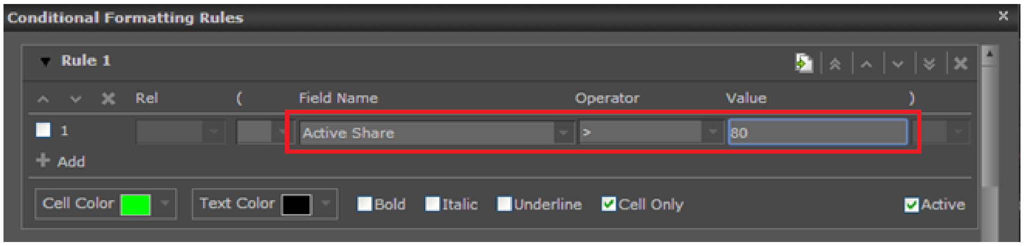
Investment List

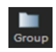
	Attribution			Exposures								
	GICS Sectors: Attribution 1 Yr			GICS Sectors: Relative Weights								
Name	Allocation %	Selection %	Active Ret%	Consumer Discretionary	Consumer Staples	Energy	Financials	Health Care	Industrials	Information Technology	Materials	Telecommunica Services
American Funds AMCAP A	1.52	0.79	2.31	-0.82	-5.40	-2.92	-11.87	5.69	1.37	0.76	0.94	-1.83
American Funds Growth Fund of Amer A	-0.12	-1.08	-1.20	6.13	-5.33	-0.93	-8.61	3.38	-0.91	1.38	-0.52	-1.74
Fidelity® Blue Chip Growth	0.95	0.79	1.74	3.66	-0.65	-2.15	-0.73	1.06	-3.47	4.07	-1.42	-2.00
Fidelity® Contrafund®	0.36	-4.13	-3.78	3.43	-2.44	-6.02	1.90	3.38	-3.15	5.54	-0.21	-2.28
Fidelity® Growth Company	1.75	0.41	2.16	-4.60	-0.78	-0.52	-2.32	7.56	-3.59	5.40	-2.04	-1.64
T. Rowe Price Growth Stock	0.46	-4.37	-3.91	14.39	-7.16	-6.27	-10.10	4.14	3.13	5.46	-1.16	-1.70
Vanguard PRIMECAP Inv	3.03	2.51	5.54	-3.42	-9.37	-5.79	-10.97	14.82	5.15	10.90	-0.84	-2.28
Fidelity Advisor® New Insights A	-0.43	-3.58	-4.01	1.47	-2.24	-4.25	4.49	3.14	-3.07	0.44	1.00	-2.28
Harbor Capital Appreciation Instl	0.87	-3.41	-2.54	5.78	-6.47	-1.09	-1.58	5.91	-5.79	5.42	-2.12	-2.14
T. Rowe Price Blue Chip Growth	0.57	-4.06	-3.50	11.30	-7.29	-5.98	-8.98	8.70	3.52	2.11	0.74	-2.05

Morningstar Direct **Portfolio Analysis** for **New Users**

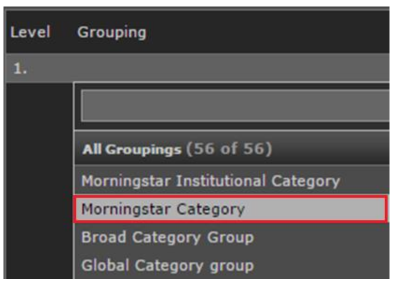
4. To add conditional formatting, select the icon in the header. 

Under *Field Name*, you can add custom formatting to data points currently in your Data Set.

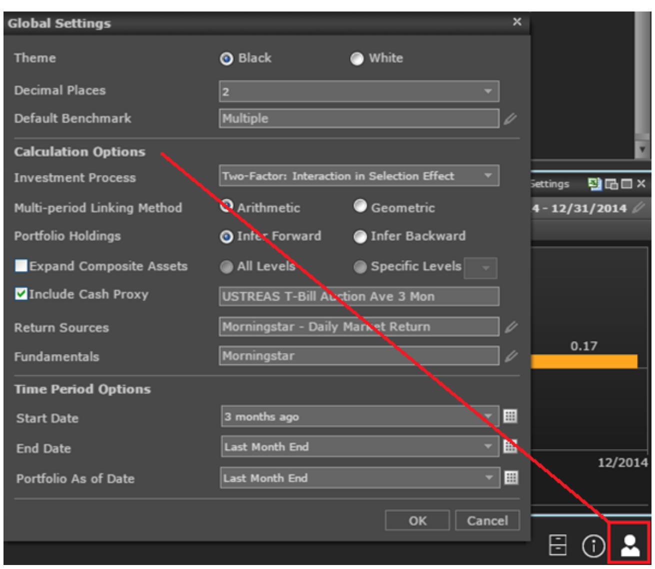


5. Organize the portfolios on the Dashboard into common groups. 

Choose from Morningstar-defined groupings, such as Morningstar Category, or a schema from your *Custom Database*.



6. Return to the profile icon in the footer to activate your Global Settings.  For more information on these settings, please review the methodology document found in the Learning Center.



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Discover Why an Investment Out- or Under-Performed

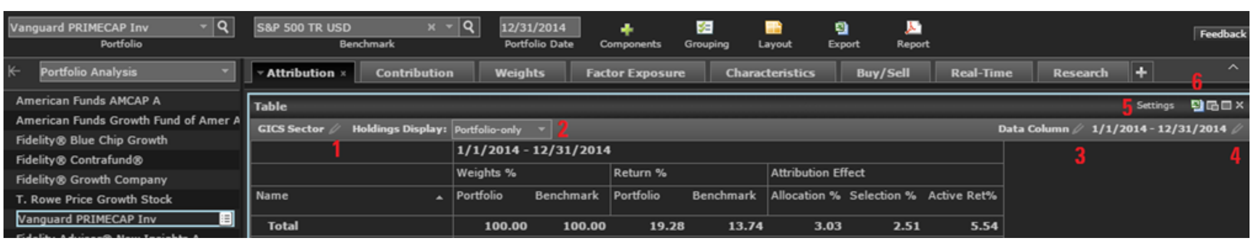
1. After reviewing your Dashboard, you might be intrigued about a particular investment. For example, what led to the Vanguard PRIMECAP fund's excess return of 5.54% against the benchmark during the trailing year?

	Attribution		
	GICS Sectors: Attribution 1 Yr		
Name	Allocation %	Selection %	Active Ret%
Vanguard PRIMECAP Inv	3.03	2.51	5.54

Click on the name of the investment. You will be taken to the Portfolio Analysis template and begin to learn about the drivers of this investment's performance, using the underlying equity holdings.

2. On the header, reference the portfolio and benchmark that were selected on the Dashboard. Note that the list of investments from your Dashboard appears on the left panel. This is helpful if you want to make quick comparisons without leaving the tool. In the header, there are multiple tabs, starting with *Attribution* and ending with *Research*. These tabs define your template.

3. On each tab, the tables and charts can be customized to your preferred settings.



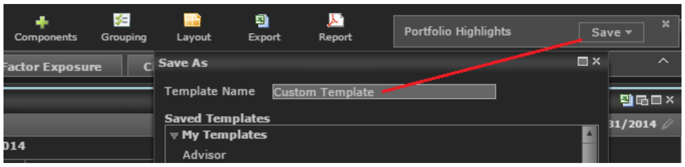
1. Change the security classification, or consider adding a second equity classification. Note that you can use your previously-created custom groupings, or create a new custom grouping. The default setting is Morningstar Sector. Your Client Solutions Consultant can provide you with GICS Sector classifications upon request.
2. Keep your table limited to show the portfolio holdings, or choose to show both the portfolio and benchmark holdings.
3. Choose additional columns to display.
4. Display more historical time periods.
5. Modify the calculation settings.
6. Export the results to an Excel spreadsheet.

4. Use the tabs in the header to learn more about the investment. Here is a brief description of the tabs that you might be interested in viewing to learn more.

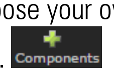
Attribution: Understand the main drivers of outperformance, or underperformance
Factor Exposure: Identify a manager's style and consistency to a policy benchmark
Buy/Sell: Evaluate the manager's tactical management decisions over a historical time period
Research: Access Morningstar's analyst research content from the Global Fund Report

Save Your New Custom Template

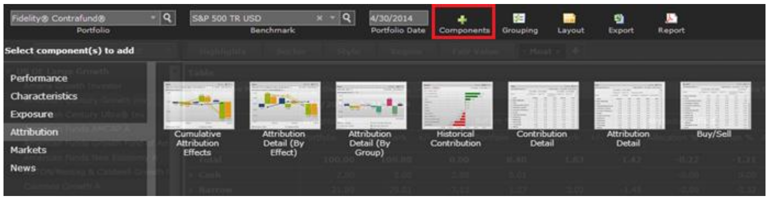
1. After making a change to your new template, which includes the tabs and settings, a *Save* prompt appears. Click *Save As* to save the template as a custom version.



2. In addition to changing the settings, you have full control over the layout. Add, delete, or rename tabs to your custom template at any time. To add a new tab, copy the existing page by clicking the tab's title or click on the + tab, , located to the right of the other tabs. There is no limit to how many tabs you can create. Add a blank page or select from the pre-built page layouts.

3. Choose your own charts and tables to customize the layout. Click *Components*, located in the header, to open the library. 

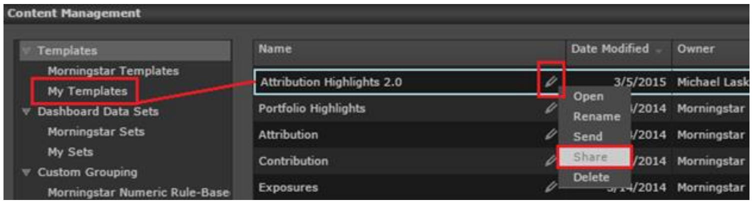
The components are categorized by *Intraday Performance*, *Portfolio Characteristics*, *Exposure*, and *Attribution*. Drag and drop the icon onto the page. Click *[x] Close* to hide the *Components* library when finished.



Share Your Analysis with Colleagues

1. After saving your new custom template, share this layout with colleagues who want to analyze their list of investments.

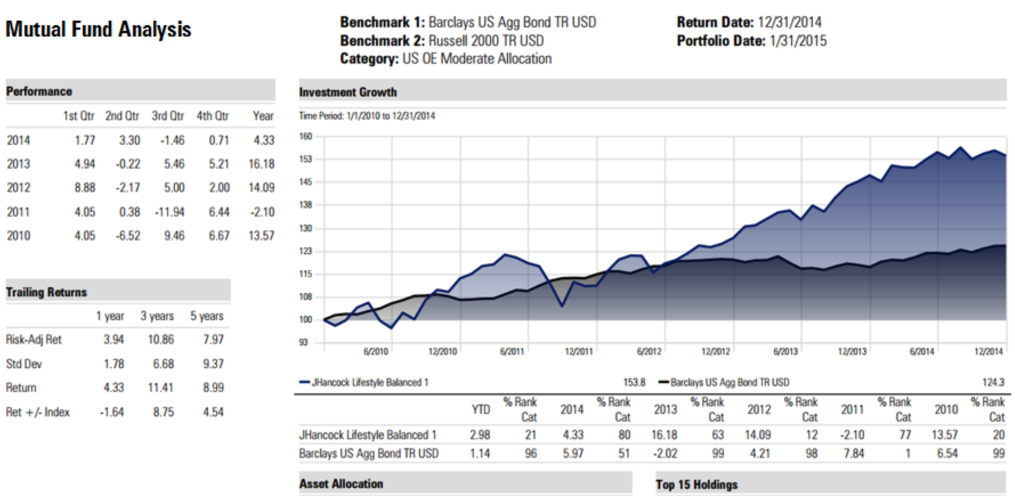
2. Click on the *Content Management* icon found in the footer. Select My Templates. Next, select the template you want to share by clicking on the pencil icon. Type in the recipients' email addresses for their Morningstar Direct accounts. Once complete, the recipients' will be able to view your template when they visit Portfolio Analysis.



Note: *Share* will keep the template dynamic between all parties, so any saved changes will be viewed by all. *Send* will allow the recipients to receive their own version of the template.

Create Branded Factsheets via Presentation Studio

1. Create a PDF report using a Factsheet template previously designed in Presentation Studio. Click on the Report icon in the header. Report The *Equity Attribution Detail* template, found under Morningstar Templates, replicates the output from the PDF Summary report available in the *Equity Attribution* module. The *Investment Detail Report* is also a popular choice. Confirm the settings for your benchmarks, time period, and report name. Then click on *Run Report*. You will be notified in the header once the PDF report completes.



Mutual Fund Analysis

Benchmark 1: Barclays US Agg Bond TR USD
Benchmark 2: Russell 2000 TR USD
Category: US OE Moderate Allocation

Return Date: 12/31/2014
Portfolio Date: 1/31/2015

Performance

	1st Qtr	2nd Qtr	3rd Qtr	4th Qtr	Year
2014	1.77	3.30	-1.46	0.71	4.33
2013	4.94	-0.22	5.46	5.21	16.18
2012	8.88	-2.17	5.00	2.00	14.09
2011	4.05	0.38	-11.94	6.44	-2.10
2010	4.05	-6.52	9.46	6.67	13.57

Trailing Returns

	1 year	3 years	5 years
Risk-Adj Ret	3.94	10.86	7.97
Std Dev	1.78	6.68	9.37
Return	4.33	11.41	8.99
Ret +/- Index	-1.64	8.75	4.54

Investment Growth

Time Period: 1/1/2010 to 12/31/2014

	YTD	% Rank Cat	2014	% Rank Cat	2013	% Rank Cat	2012	% Rank Cat	2011	% Rank Cat	2010	% Rank Cat
JHancock Lifestyle Balanced 1	2.98	21	4.33	80	16.18	63	14.09	12	-2.10	77	13.57	20
Barclays US Agg Bond TR USD	1.14	96	5.97	51	-2.02	99	4.21	98	7.84	1	6.54	99

Asset Allocation

Top 15 Holdings

2. You will also see a PDF icon next to this investment on your Dashboard. Return to your Dashboard by clicking on in the footer. This icon allows quick access to this PDF report in the future.

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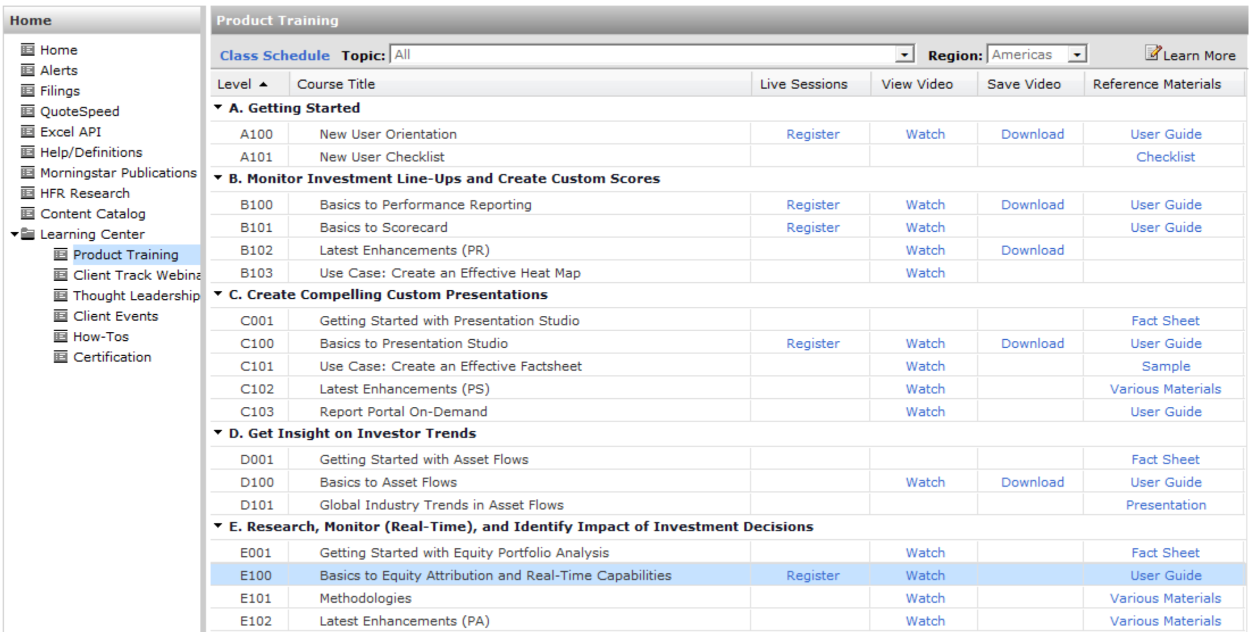
More Training Resources

1. For further training, please visit the *Product Training* folder under Home in Morningstar Direct.



This concludes the introduction to Portfolio Analysis for new users. If you have any questions or concerns, please contact your Client Solutions Consultant.