Leveraging the Morningstar Notebooks

Workshop Guide

MORNINGSTAR Direct

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Leveraging the Morningstar Notebooks

Overview

In the current market environment, access to vast amounts of data, and the capability to analyze that data to produce actionable insights is a distinguishing factor of success in the financial services industry. Morningstar observes this in the use cases and behaviors of clients.

Notebooks offer clients an easy and efficient way to analyze data and develop meaningful insights. For example, a notebook can be used to quickly map the full history of a portfolio manager's career or conduct equity ownership analysis tailored to a specific need with a click of a button; something that would otherwise require repeated exports and secondary analysis of data today.

> ☞ Note: To view the Analytics Lab module in Morningstar Direct, clients need to be on version 3.20.006 (June 26th, 2021 release) or later to view the Analytics lab in Morningstar Direct.

This exercise shows clients how to leverage three of the Morningstar Notebooks and interpret their data through the following exercises:

- Discovering a Portfolio Manager’s Performance History (page 7)
- Reviewing a Firm’s Diversity Data (page 18)
- Discovering Stock Ownership Popularity Details (page 27)

Be sure to also read the FAQ document for notebooks.

What Notebooks are available?

The first notebooks available are pre-packaged analysis as well as notebooks encapsulating Morningstar research and methodology. Clients can access the following standard notebooks, providing best-in-class analytical data:

This notebook...	**Was designed for this role type...**	**At this firm type...**	**To show...**
Portfolio Manager Performance History	▸ Manager Researcher ▸ Marketing	▸ Wealth Manager ▸ Asset Manager	A holistic picture of a portfolio manager's career – what funds they've managed over time and how those funds have performed during his/her tenure compared to peers. This allows Manager Researchers to evaluate the comfort level with a new manager when a change takes place at a fund, or the Marketing team at an asset manager to promote the tenure and success of their team. Today, clients can find Manager Tenure and Performance data in Morningstar Direct, but view only one piece of information at a time. This notebook offers an intersection of these two data points, making the analysis simple.
Time Series Factor Regression Analysis	▸ Portfolio Manager ▸ Marketing	▸ Wealth Manager ▸ Asset Manager	This notebook is a multiple regression tool decomposing returns into factor exposures, using the Fama-French model, to derive an investment's Alpha and Beta exposures through time. Multiple investments can be selected at once for comparison, and the time period, too.

Stock Ownership Analysis	▸ Portfolio Manager ▸ Compliance, Portfolio Manager	▸ Wealth Manager ▸ Asset Manager	Which funds own certain stocks of interest, to manage exposure to them. Clients can also see which funds have recently sold into or out of a security. This makes it easy to complete the following tasks for up to 10 stocks at a time: ▸ find banned securities (when a firm needs to divest) ▸ evaluate exposure to “sin” stocks, and ▸ track ownership of interesting or topical stocks (such as crypto-currencies or GameStop). Outside of this notebook, the ownership analysis tools in Morningstar Direct bring clients close to this same analysis, but they face the limitation of the universe of investment type owners being searched cannot be limited, which means clients must export data to Microsoft® Excel® and then use V-Lookup to see if the funds in question are impacted.
Firm Diversity Data	▸ Manager Researcher ▸ Marketer	▸ Wealth Manager ▸ Asset Manager	A firm’s diversity from the ownership, board and employee level. This data gives clients insight into a firm’s diversity. Currently, clients can view gender diversity data in Workspace but this notebook also provides insight into race and disability diversity.

Discovering a Portfolio Manager’s Performance History

Overview

The Portfolio Manager Performance History notebook provides a holistic picture of a portfolio manager's career—what funds they've managed, and how those funds performed during their tenure compared to peers. This allows Manager Researchers to evaluate the comfort level with a new manager when a change takes place at a fund, or the Marketing team at an asset manager can use the data to promote the tenure and success of their team.

While manager tenure and performance data (as well as other statistics) can be found in Morningstar Direct outside of this notebook, clients may encounter the following obstacles when conducting this research:

1. This notebook by design offers an intersection of tenure, performance, and asset flow data. Outside of the notebook, however, this information must be manually collated
2. The notebook contains a unique data point showing a manager’s career Excess Return category percentile value. Calculating this outside of a notebook would be a labor-intensive project.
3. An advanced search can show only funds where someone is presently a manager. Historic assignments cannot be found via a search.

This section shows clients how to investigate a portfolio manager’s history by creating an advanced search and viewing manager tenure, performance data, and asset flows through the new notebook. The following exercises are covered here:

- Exercise 1: Find portfolio manager history in the Workspace module on page 8
- Exercise 2: Review a portfolio manager’s history in the Portfolio Manager Performance History notebook on page 11, and
- Exercise 3: Review a different manager in the notebook on page 16.

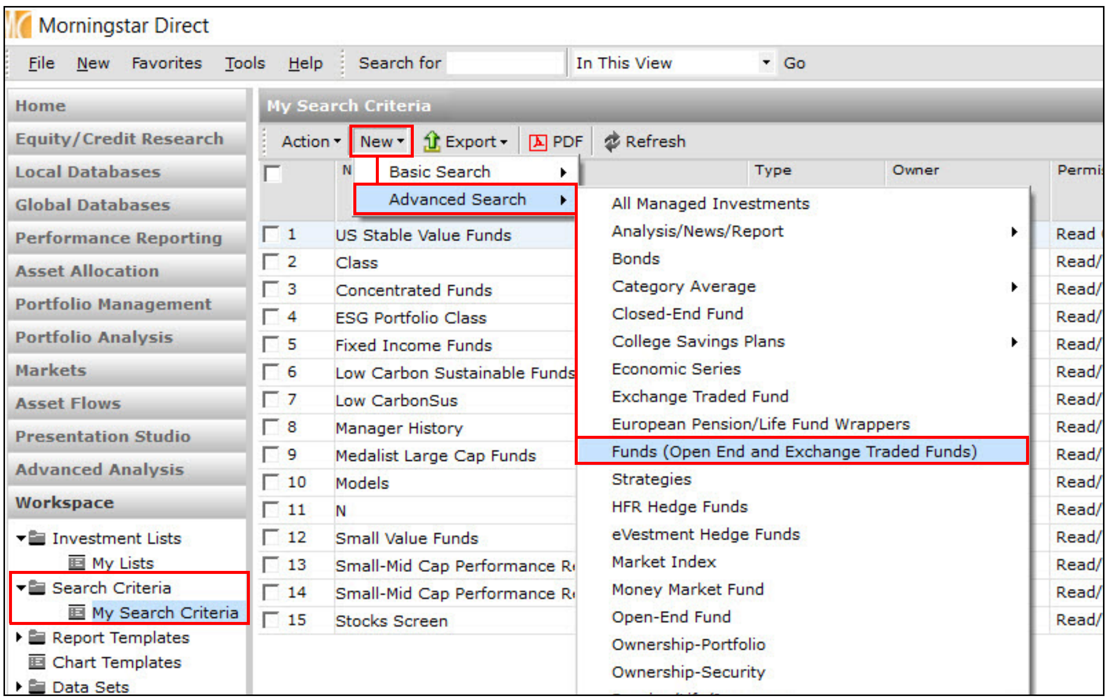
Exercise 1: Find portfolio manager history in the Workspace module

When a new manager is announced for a fund, or if you are considering adding a manager to your product shelf, understanding that manager's performance history is a critical part of a firm's due diligence. This exercise shows clients how to find a manager via an advanced search and what other data can easily be found in the grid view. Keep in mind that a search will find only those funds where someone is presently a manager. Past funds where someone was a manager will not appear in the search results.

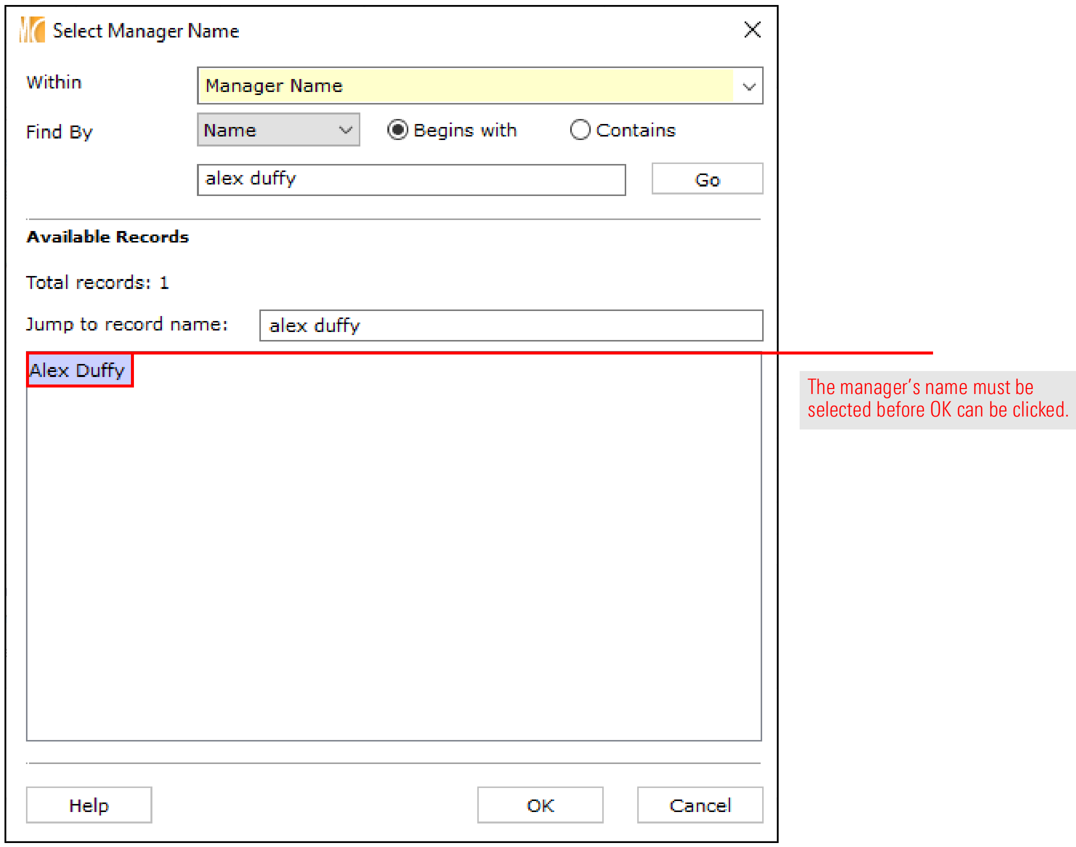
Do the following:

1. **Log in** to Morningstar Direct.
2. Select the **Workspace** module, then select **Search Criteria** > **My Search Criteria**.
3. From the toolbar, click **New** > **Advanced Search** > **Funds (Open End and Exchange Traded Funds)**. The Search Criteria window opens.

Be sure to search for both open end funds and exchange-traded funds for this exercise.

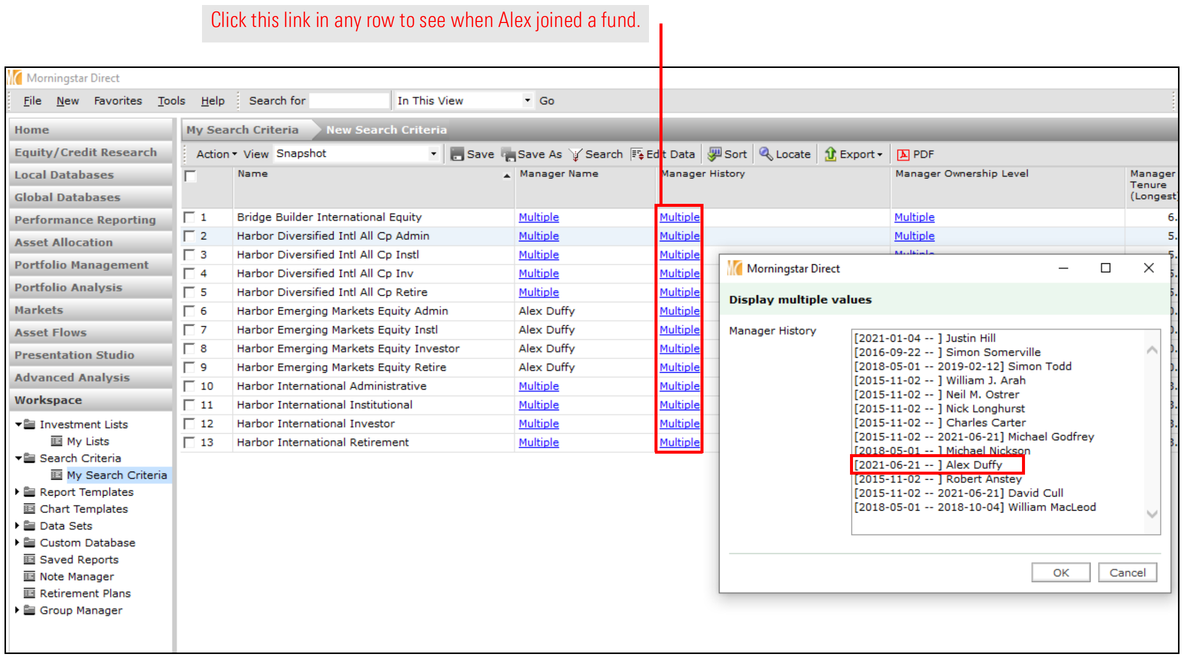


4. In the first row, click the **Field Name** cell, then select **Manager Name**. The Select Manager Name dialog box opens.
5. In the search field, enter **Alex Duffy**, then click **Go**.
6. From the Available Records area, select **Alex Duffy**.



7. Click **OK** to close the Select Manager Name dialog box.
8. Click **OK** to close the Advanced Search window. The funds display in the grid.

9. Take note of the funds appearing here, then **scroll right** in the Snapshot view to see the Manager History column.
10. Click the **Multiple** link under the Manager History column in any row to see when Alex joined the fund as a manager.



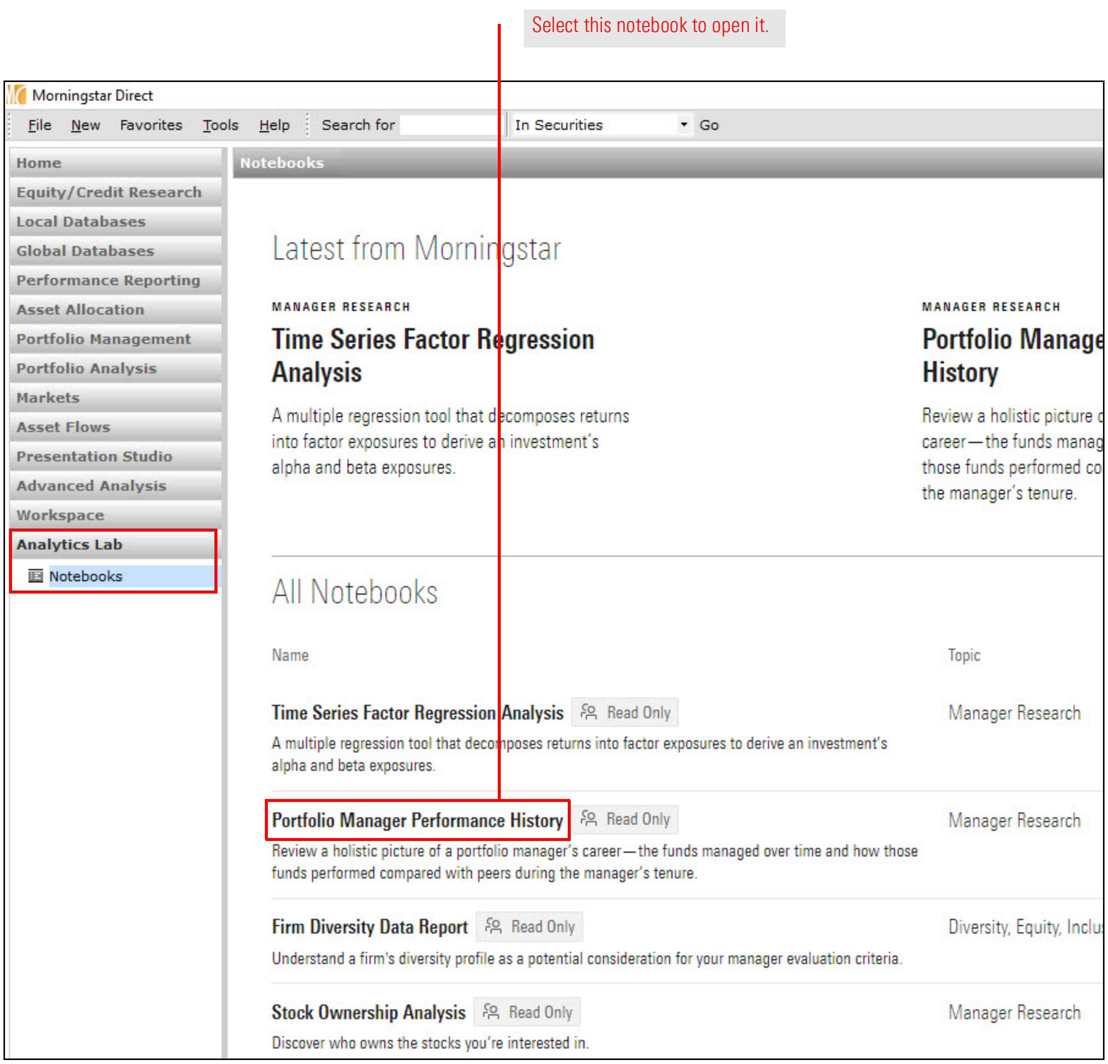
Exercise 2: Review a portfolio manager's history in the Portfolio Manager Performance History notebook

This exercise shows clients how to leverage the Portfolio Manager History notebook to investigate Alex Duffy. Before using this notebook, it is important for clients to understand the following rules:

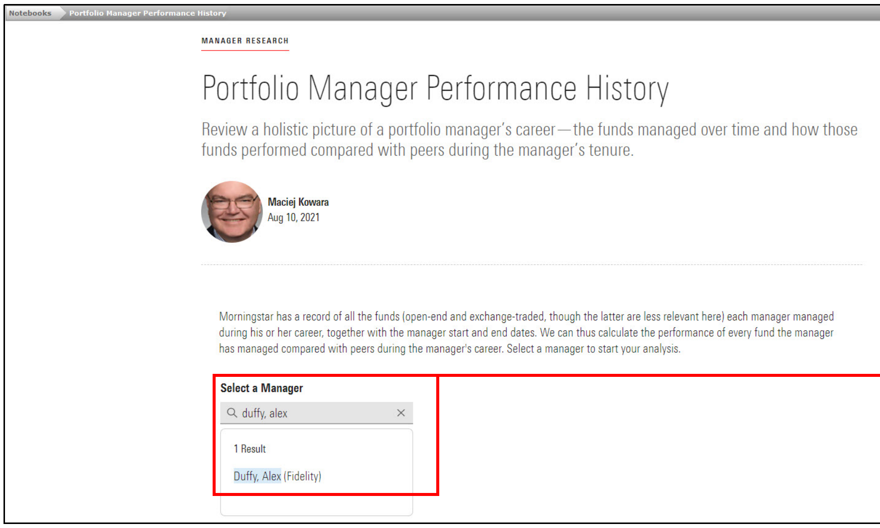
1. Only one manager can be searched for at a time. Before searching for a different manager, the previous name needs to be removed.
2. Here, a manager's Excess Return category percentile value is calculated. This unique data point requires at least 12 months' worth of data to calculate it. Therefore, any fund where a manager has been in place for less than 12 months will not appear.
3. Related, for any fund(s) where a manager was tenured less than 12 months, that fund will not appear in this notebook.

To use this notebook, do the following:

1. Click the **Analytics Lab** module.
2. From the Notebook window, click **Portfolio Manager Performance History**. The notebook opens.

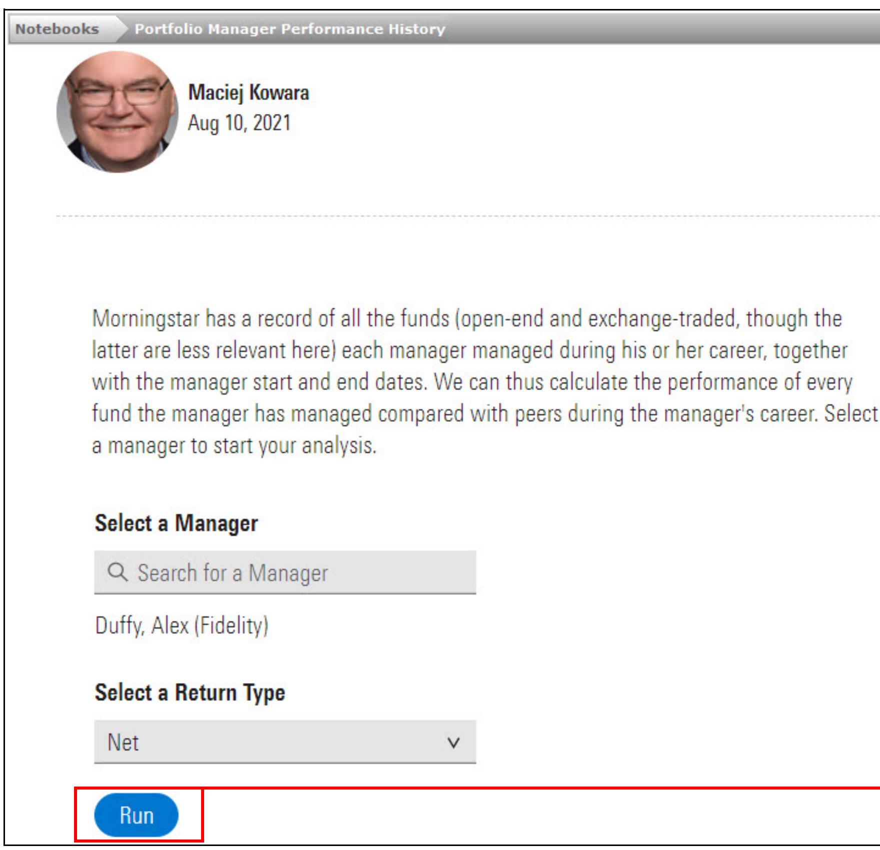


3. When searching for a manager here, note that the format is Last Name, First Name. The search function also uses a "begins with" approach, and not a "contains" approach, so be sure to know the correct spelling of the manager's last name. In the **Select a Manager** field, type **Duffy**.
4. From the menu that opens, click **Duffy, Alex (Fidelity)** to select this manager.



Enter a manager's name to investigate their Performance History.

5. Next, set the **Return Type** to **Net**.
6. Click **Run**.



Click Run to populate data.

The notebook is now compiling the data; this can take a minute or two to complete. The first item to appear is the **Average Percentile Return Category Rank**.

Average Percentile Return Category Rank

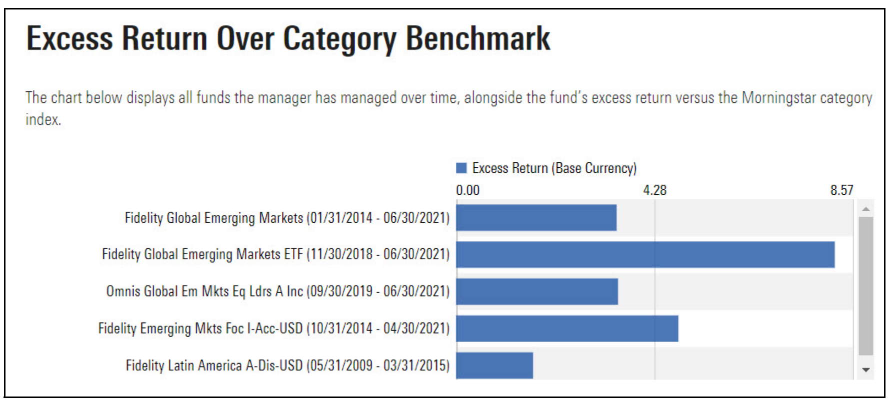
9th Percentile

We've calculated percentile category return ranks for each fund's performance during the time of this manager's tenure. You can see the full details of those ranks in the Historical Performance Details section below. Then, a tenure-length weighted average is done on those percentile ranks to give an overall picture of how the manager has performed compared to peers during their career.

The tenure-length weighted average of this manager is the 9th percentile.

This is computed by first calculating the percentile category return ranks for each fund's performance during the time of this manager's tenure. Then, a tenure-length weighted average is done on those percentile ranks to give an overall picture of how the manager has performed compared to peers during their career. This data is only available in the Portfolio Manager Performance History notebook.

The next section displays the Excess Return Over Category Benchmark chart. This chart displays all funds the manager has managed over time, alongside the fund's excess return versus the MPT Index, which is the benchmark assigned to investments based on their Morningstar category. This Excess Return is calculated in the base currency of the fund.



The Historical Performance Details table provide the full historical performance details over the full period of the manager's tenure on the fund. In addition to Excess Return, the category percentile rank is calculated for both Excess Return and Sharpe Ratio.

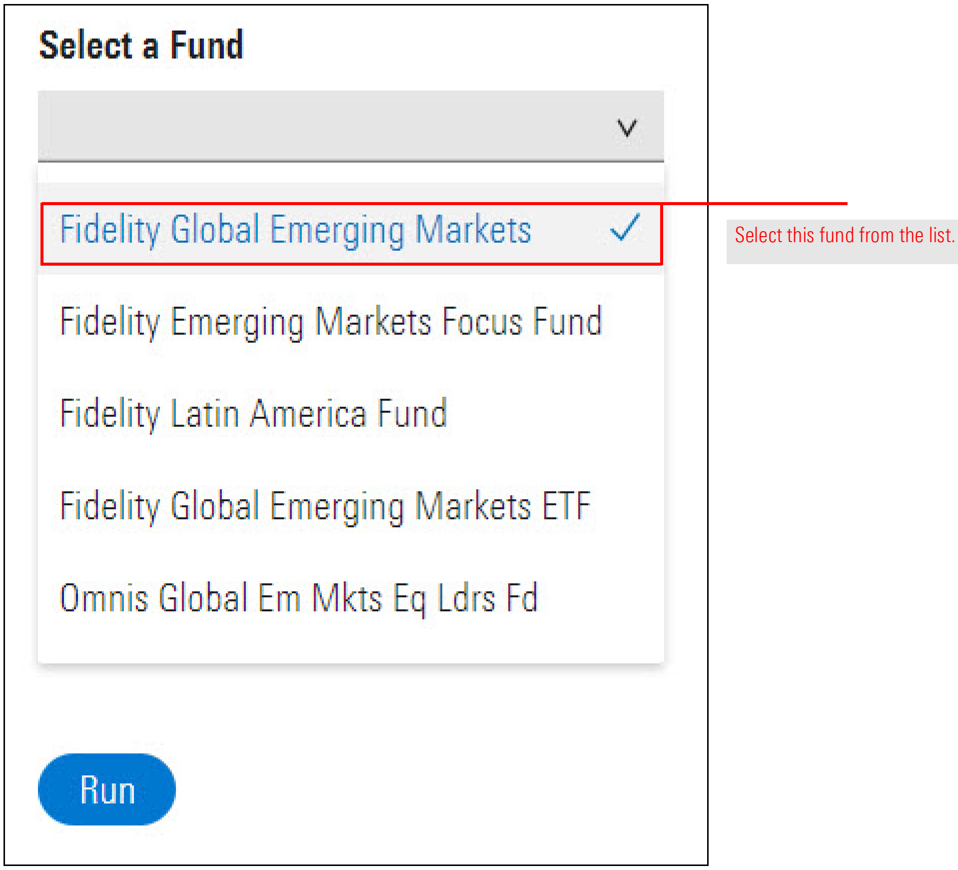
The Morningstar Category Index (also known as MPT Index for non-US markets) is used to calculate the Excess Return and the MPT Risk-Free Rate is used to calculate the Sharpe Ratio.

Fund Name	Fund of Funds	Base Currency	Percentile Return Rank in Category During Tenure	Percentile Sharpe Ratio Rank in Category During Tenure	Number of Funds in Category	Morningstar Category Index	Excess Return Over Category Benchmark
Fidelity Global Emerging Markets	No	AUD	1	1	27	MSCI EM NR AUD	3.46
Fidelity Emerging Mkts Foc I-Acc-USD	No	USD	2	6	455	MSCI EM NR USD	4.79
Fidelity Latin America A-Dis-USD	No	USD	27	50	65	MSCI EM Latin America NR USD	1.66
Fidelity Global Emerging Markets ETF	No	AUD	3	5	46	MSCI EM NR AUD	8.16
Omnis Global Em Mkts Eq Ldrs A Inc	No	GBP	16	23	617	MSCI EM NR USD	3.49

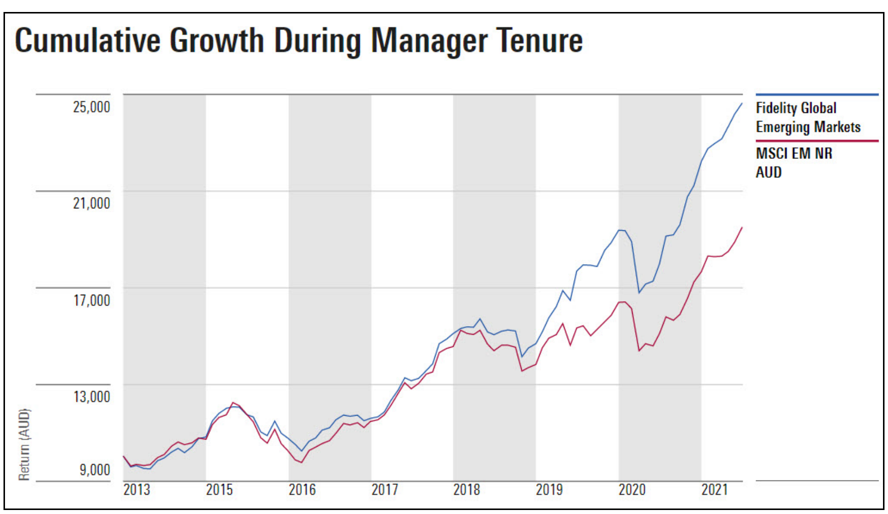
Based on the table above, we notice that Fidelity Global Emerging Markets, which ranked in the 1st percentile rank in category during the manager tenure and exceeded the category benchmark by 3.46%.

To further investigate this fund, do the following:

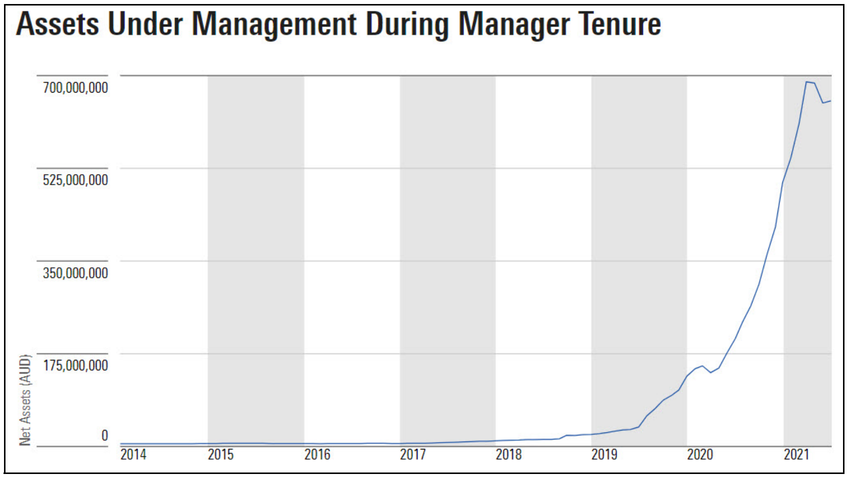
1. Using the **Select a Fund** drop-down menu, select **Fidelity Global Emerging Markets**.



2. Click **Run**. The Cumulative Growth During Manager Tenure chart appears on screen, illustrating how the fund performed against MSCI EM NR AUD since the start of the manager tenure in early 2013.



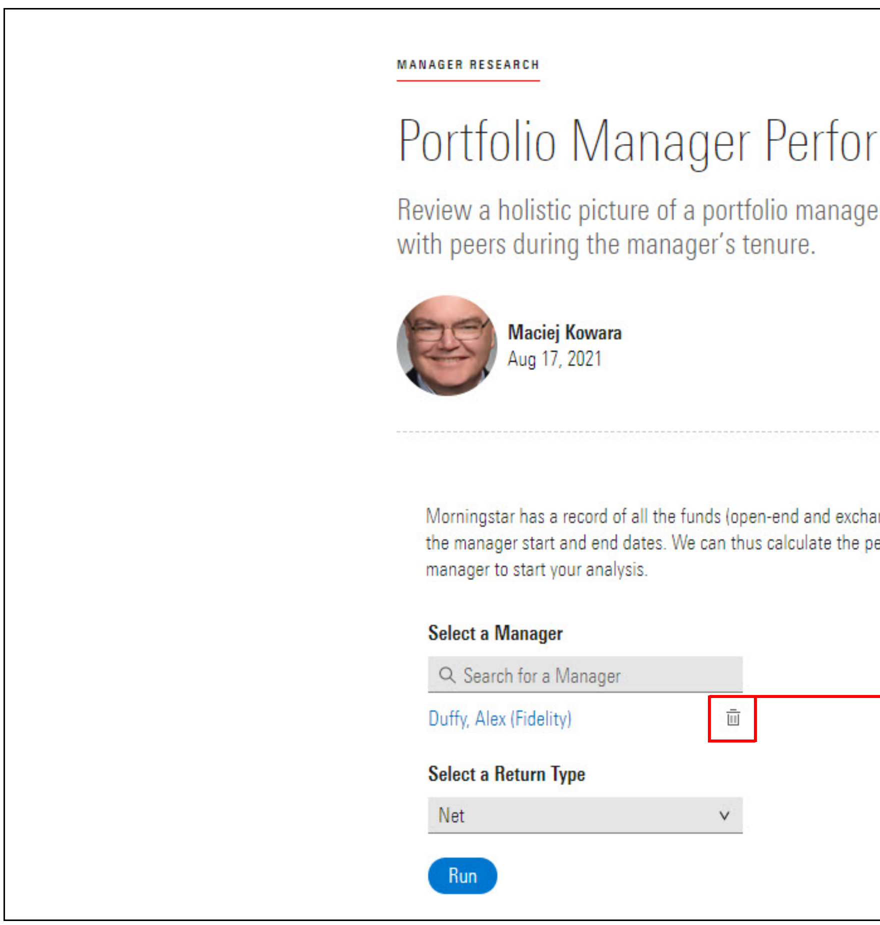
Lastly, the notebook reports the Assets Under Management During Manager Tenure increased, despite a difficult 2020. This section offers a unique view into the juxtaposition between performance and asset growth.



Exercise 3: Review a different manager in the notebook

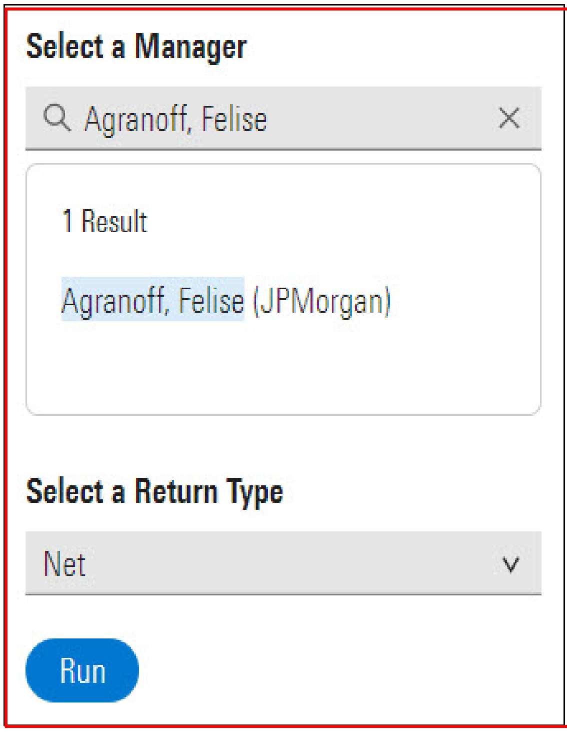
To view a different manager's performance history, do the following:

1. From the Select a Manager section, **hover the cursor** over **Duffy, Alex** then click the **Remove** icon.



Hover the cursor over a manager's name to see this icon.

2. Using the **Select a Manager** field, type **Agranoff, Felise**.
3. From the menu, click **Agranoff, Felise (JPMorgan)** to select this manager.



Note the options selected.

4. Click **Run**.

Reviewing a Firm's Diversity Data

Overview

The data elements within the Firm Diversity Data Report notebook are surveyed responses from asset management firrms; they are not collected from public filings. In contrast, the Gender Diversity data available within the preset views elsewhere in Morningstar Direct are collected from the filings of public companies and then rolled up to the fund level. Also, note that this notebook has its own dedicated FAQ.

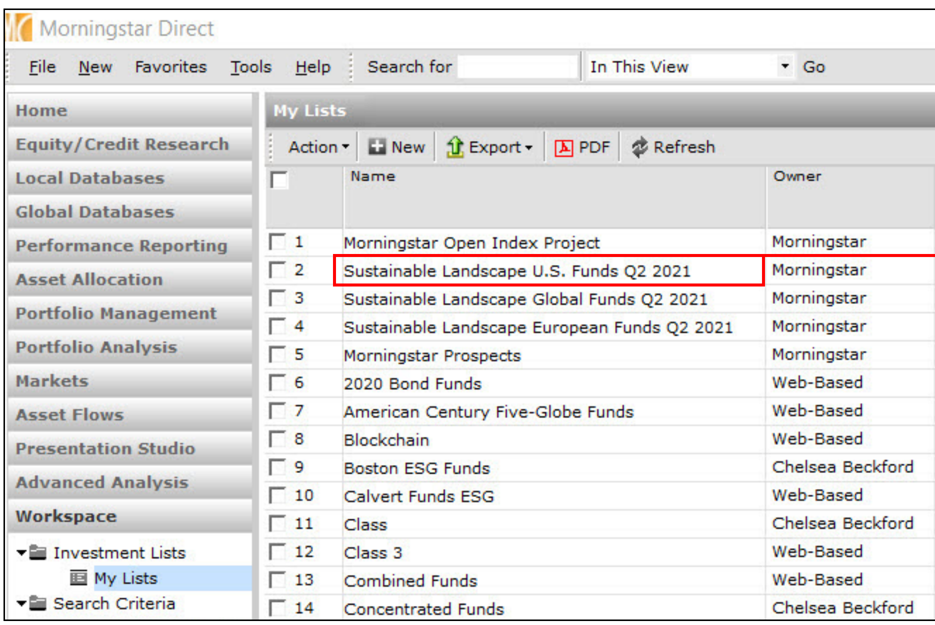
This section covers the following exercises to help clients understand where to find this data and understand how to use the Firm Diversity Notebook:

- Exercise 4: Analyze diversity data in preset views on page 18, and
- Exercise 5: Research various firms in the Firm Diversity Data Report notebook on page 20.

Exercise 4: Analyze diversity data in preset views

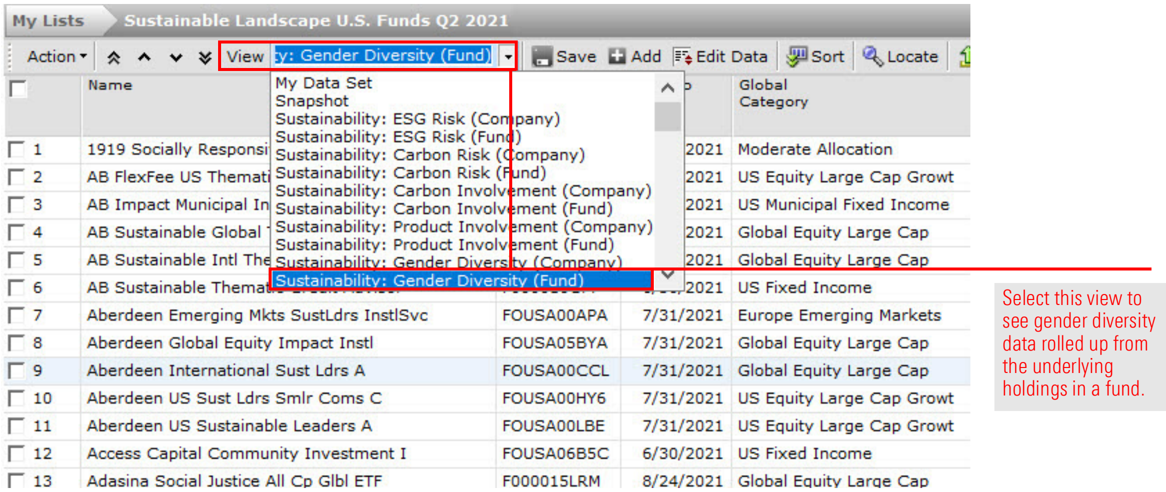
To investigate company- or fund-level gender diversity data, do the following:

1. Select the **Workspace** module, then select the My Lists page.
2. **Double-click** the **Sustainable Landscape U.S. Funds Q2 2021** list to open it.

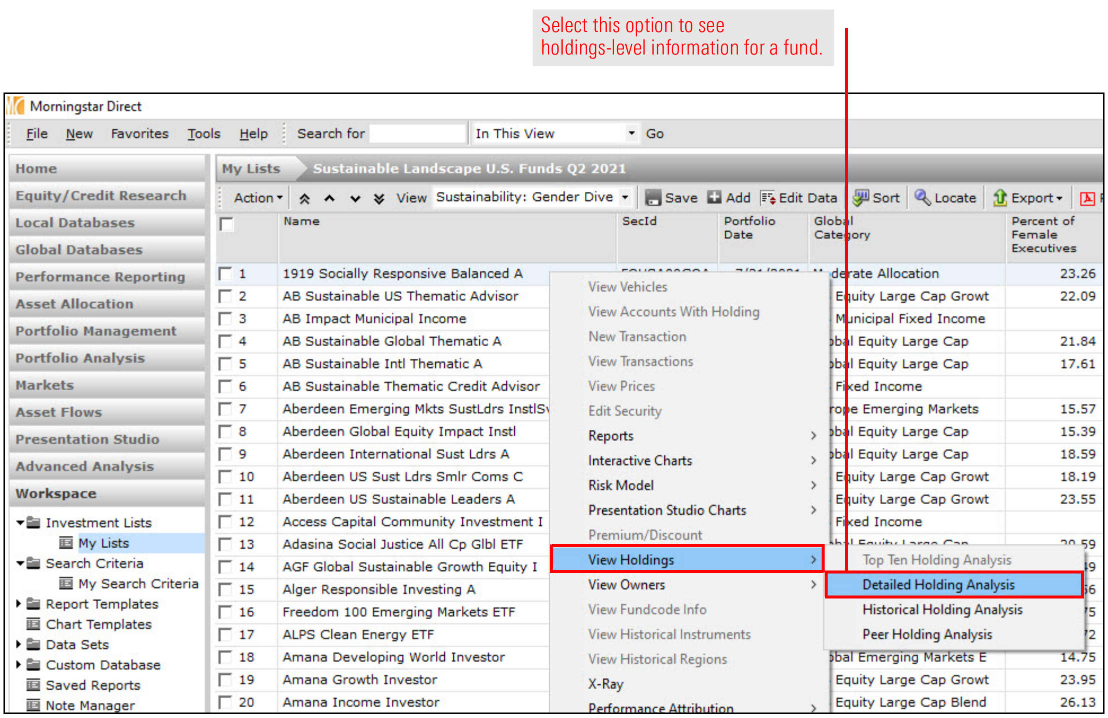


Double-click the name of this list to open it.

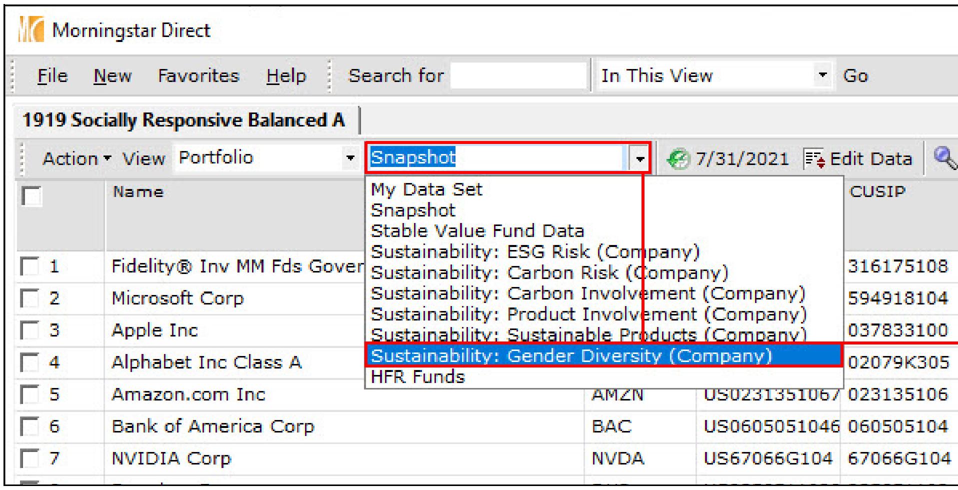
3. From the **View** drop-down field, select **Sustainability: Gender Diversity (Fund)**. What data points appear here?



4. **Right-click** the name of any equity fund, then select **View Holdings** > **Detailed Holdings Analysis**. The Detailed Holdings Analysis window opens.



5. From the **View** drop-down field, select **Sustainability: Gender Diversity (Company)**. What data points are offered here?

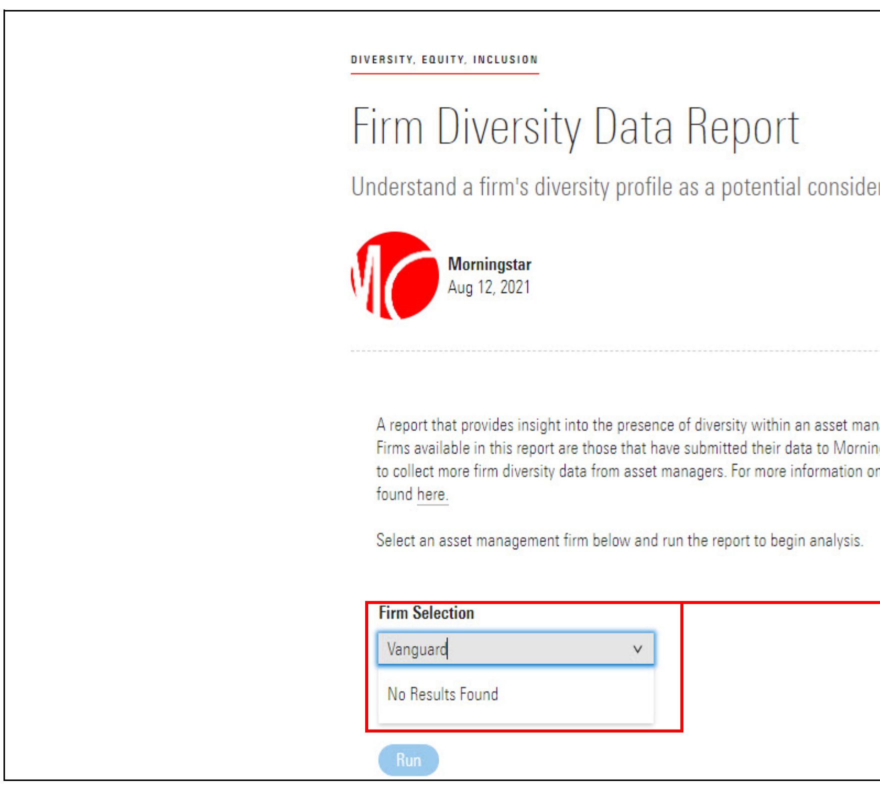


Select this view to see company-level gender diversity data.

Exercise 5: Research various firms in the Firm Diversity Data Report notebook

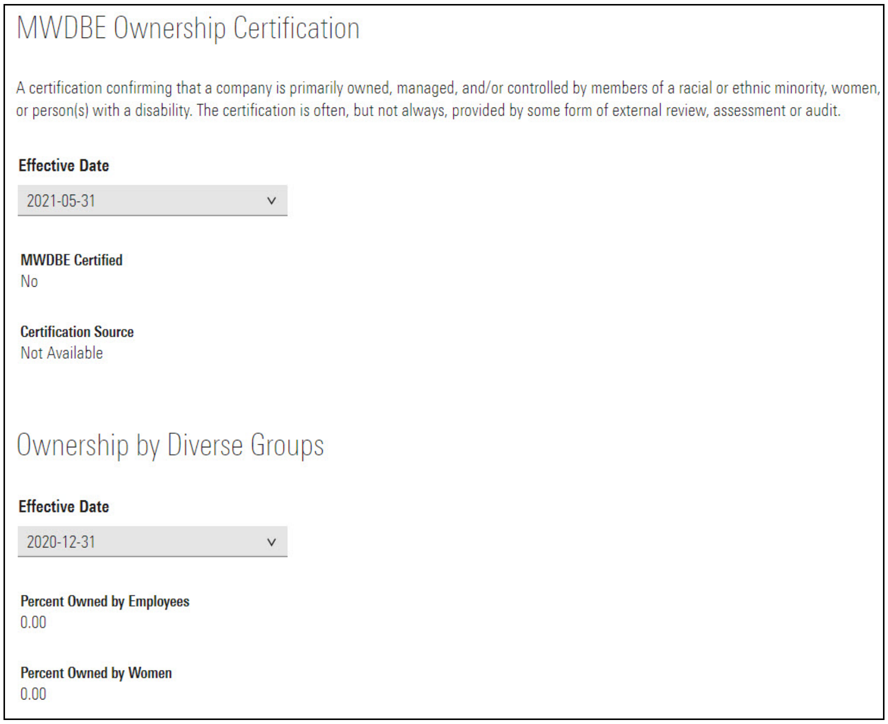
Only one firm at a time can be shown in the Firm Diversity Data Report notebook. To investigate firm diversity data for a number of asset managers in the Firm Diversity Data Report notebook, do the following:

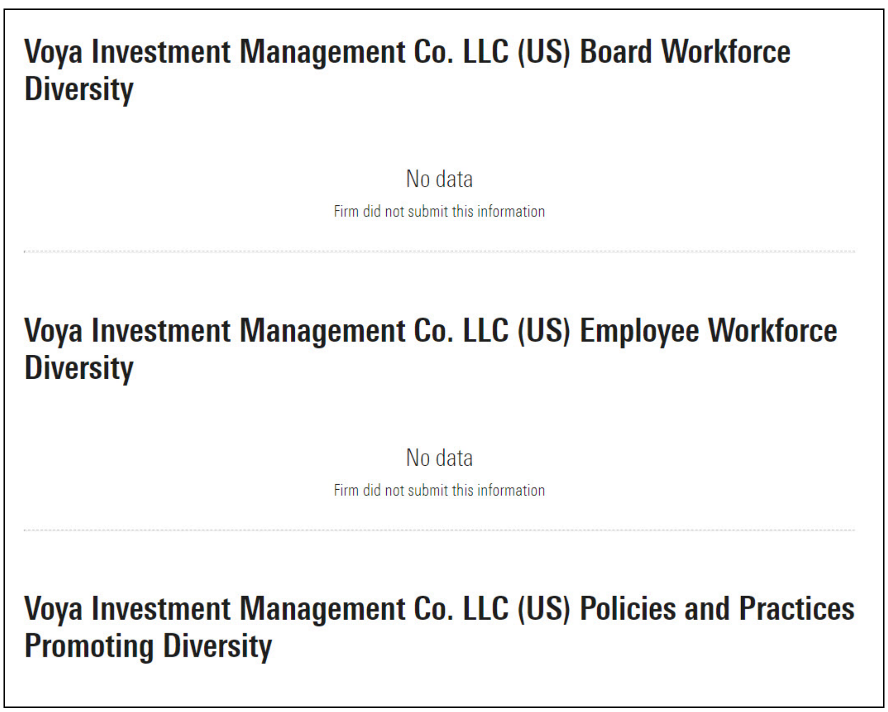
1. Select the **Analytics Lab** module. If the previous notebook is still showing, click the **Notebooks** page in the left-hand navigation pane to reset it.
2. Select the **Firm Diversity Data Report**. The Firm Diversity Data Report notebook opens.
3. Using the **Firm Selection** field, type **Vanguard**. Note the result shown.



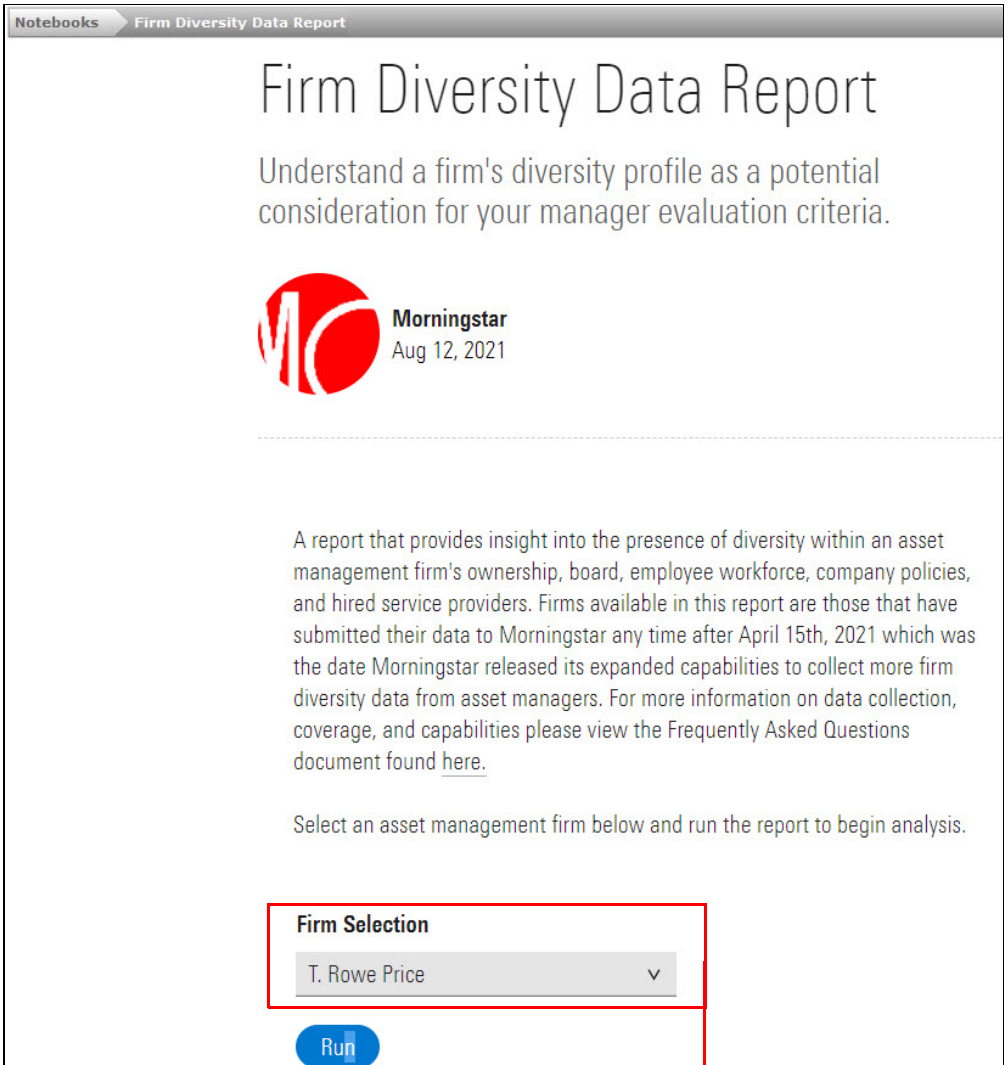
If a firm has not submitted diversity data to Morningstar, it will not appear in the Firm Section drop-down field.

4. Using the **Firm Selection** field, type **Voya**, then select **Voya Investment Management LLC**.
5. Click **Run**.



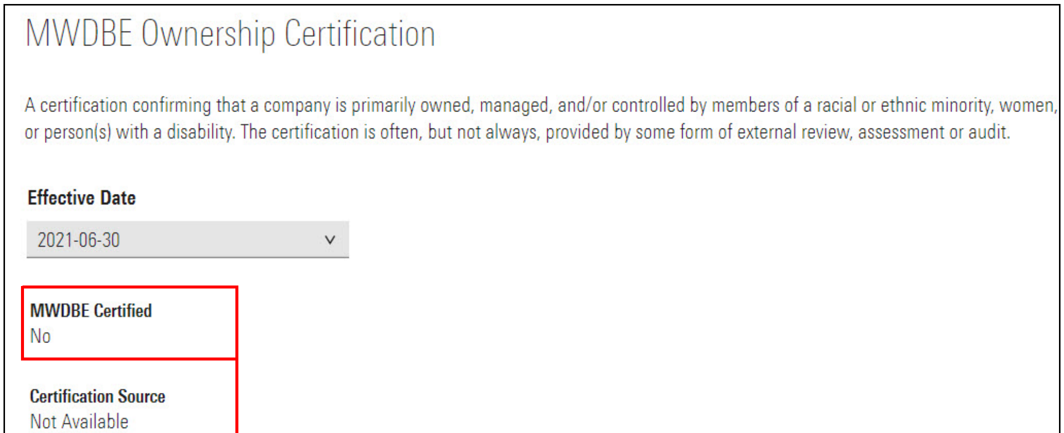


6. Using the **Firm Selection** field, type **T.Rowe** then select **T.Rowe Price**.
7. Click **Run**.



Select T. Rowe Price.

The first section to appear is the MWDBE (Minority, Women, and Disadvantaged Business Enterprises) Ownership Certification. The certification confirms that a company is primarily owned, managed, and/or controlled by members of a racial or ethnic minority, women, or person(s) with a disability. T. Rowe Price does not have a MWDBE Ownership Certification.



Note the MWDBE Certified section.

The next section displays a firm's ownership by diverse groups. Employees own eight percent of T.Rowe Price.

Note the percent owned by employees,

The next section displays the Board Workforce Diversity. T. Rowe Price has four female board members, one Asian board member and two Black or African American board members.

T. Rowe Price Board Workforce Diversity

Effective Date

2020-12-31

Board Members by Diverse Groups

Size of Board
11

Female Board Members
4

Board Members With a Disability
0

Board Members By Race and Ethnicity

Race and Ethnicity	Number of Board Members
Asian	1
Black Or African American	2
Hispanic Or Latino	0

The next section displays the employee diversity data by gender and race.

Employee Role or Gender

All Employees

Number Of Employees

6704

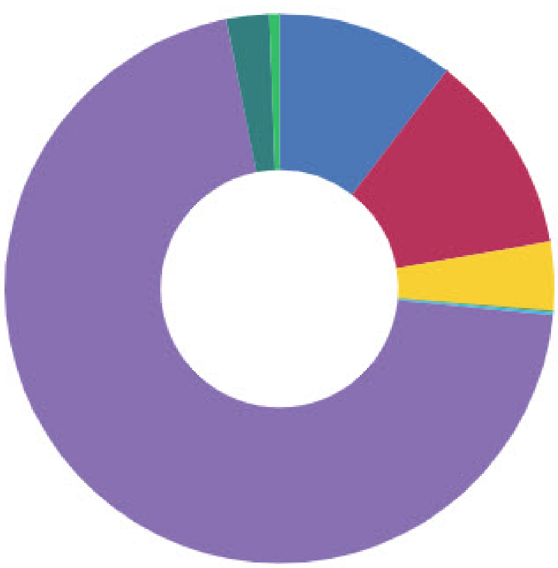
Percent Female

44.76

Percent Person(s) With a Disability

0.0

Percent By Race/Ethnicity



Race and Ethnicity	%
Asian	10.43
Black Or African American	11.83
Hispanic Or Latino	4.00
Native American Or Alaska Native	0.12
Native Hawaiian Or Other Pacific Islander	0.16
White	70.35
Other Race	0.00
Two Or More Races	2.51
Race Not Disclosed	0.60

The next section displays the Policies and Practices Promoting Diversity data. T. Rowe Price has a Firm Diversity Equity and Inclusion Policy in Place.

T. Rowe Price Policies and Practices Promoting Diversity

Effective Date

2020-12-31

Diversity, Equity, and Inclusion Policy

An indication of whether the firm has a formal policy outlining a company's mission, strategies, and practices to promote an organizational culture that values diversity, supports the needs of a diverse work force, and promotes the recruitment of employees impartially from a diverse field of suitably qualified candidates.

Firm Diversity Equity and Inclusion Policy in Place
Yes

Firm Diversity Equity and Inclusion Policy Under Consideration
Not Available

The last section displays Expenditure with Diverse Vendors data. This section shows the total number of contracts and expenditures with all service providers that are minority, women, and person(s) with a disability-owned business. T.Rowe signed 62 contracts last year with diverse vendors.

T. Rowe Price Expenditure With Diverse Vendors

Effective Date

2020-12-31

Diverse Ownership Service Providers

The total number and expenditure of contracts in a one-year period with all service providers that are minority, women, and person(s) with a disability-owned businesses. Ownership is typically, but not always, defined as at least 51% equity is owned, managed, and/or controlled by one of such demographic groups.

Majority of Equity is Owned By	Annual Number of Contracts	Annual Contract Expenditure - USD
Racial Or Ethnic Minorities	20	630612207
Women	42	2042063175
Total	62	2672675382

Discovering Stock Ownership Popularity Details

Overview

Imagine you are reviewing a set of undervalued stocks, in consideration of adding one or more to your portfolio. What other managers share your sentiment in seeing the company as being undervalued and worthy of inclusion? Which of these managers have added the stock in the past three months? In contrast, which managers have taken the contrarian view and completely sold out of the stock in the past three months? The Stock Ownership Analysis notebook depicts which funds own certain stocks of interest.

Up to 10 stocks at a time can be included in this notebook to help you do the following:

- find banned securities (when a firm needs to divest)
- evaluate exposure to "sin" stocks
- track ownership of interesting or topical stocks (such as crypto-currencies or so-called “meme” stocks, such as GameStop or AMC Theaters).

Outside of this notebook, the stock ownership analysis window in Morningstar Direct takes you close to this analysis, but faces the following limitations:

- When looking at stock owners, investment types cannot be filtered, so the data must be exported to Microsoft® Excel® and then use V-Lookup to see if the funds in question are impacted
- Likewise, investment ownership data here is commingled with institutional ownership data
- You cannot filter for new positions in the past three months, and
- You cannot see which funds have recently sold out of a position; only current owners are shown.

The following exercises are covered here:

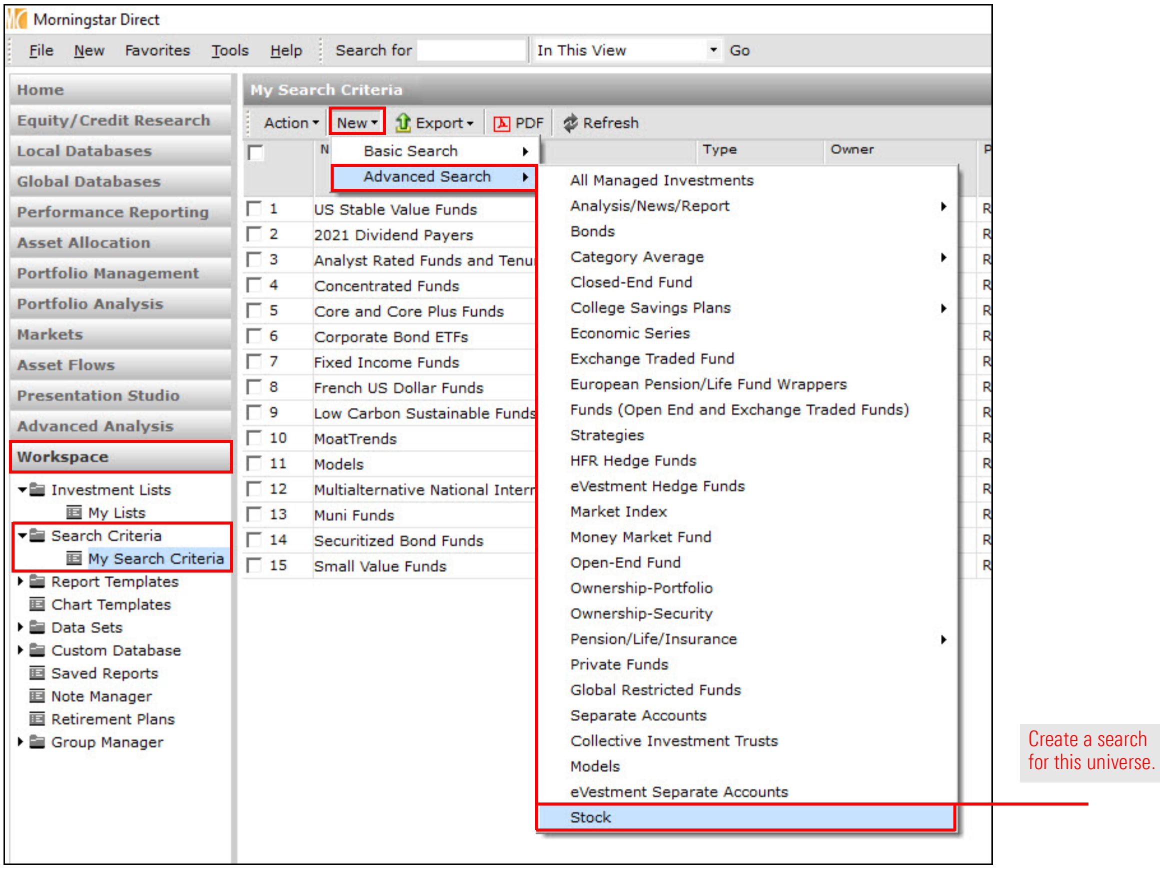
- Exercise 6: Find undervalued stocks on page 28
- Exercise 7: Find Stock Ownership on page 32
- Exercise 8: Leverage the Stock Ownership Analysis notebook for one stock on page 33
- Exercise 9: Leverage the MSHOLDING Formula in Excel Add-In on page 37, and
- Exercise 10: Leverage the Stock Ownership Notebook with multiple stocks on page 40.

Exercise 6: Find undervalued stocks

The following exercise shows clients how to find undervalued stocks through an advanced search. This result set can serve as a starting point to find stocks to investigate in the Stock Ownership notebook.

To find undervalued stocks, do the following:

1. Select the **Workspace** module, then select **Search Criteria** > **My Search Criteria**.
2. From the toolbar, click **New** > **Advanced Search** > **Stock**.

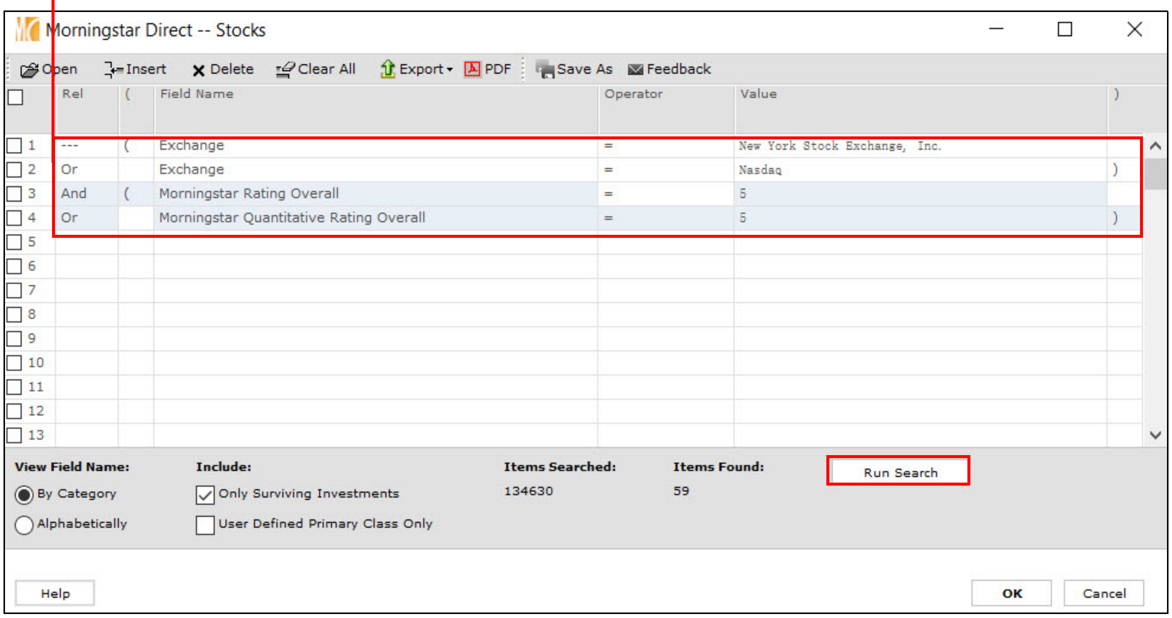


3. Enter the following criteria:

Rel	(	Field Name	Operator	Value	)
---	(	Exchange	=	Nasdaq	
Or		Exchange	=	New York Stock Exchange, Inc.	)
And	(	Morningstar Rating Overall	=	5	
Or		Morningstar Quantitative Rating Overall	=	5	)

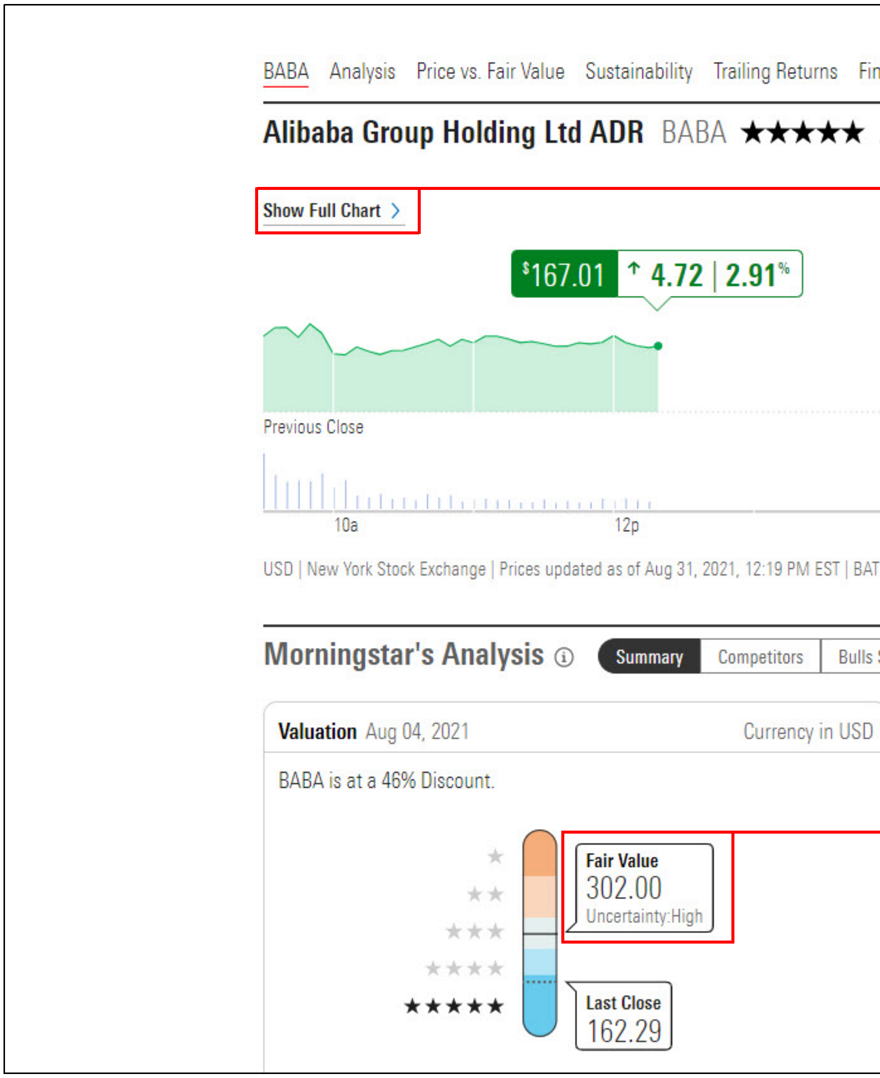
4. Click **Run Search**.

Note the highlighted areas.



5. Click **OK** to close the Search Criteria window. The next step will be to investigate exactly how undervalued a stock is, and how this valuation and the stock's price has changed in the past three months.

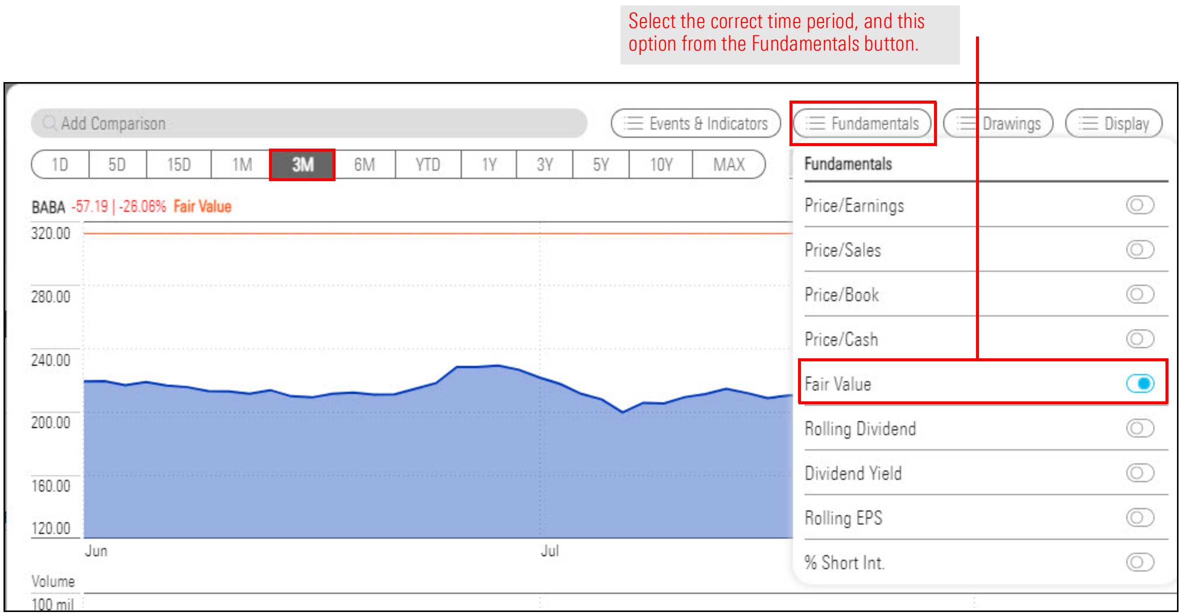
6. **Double-click** the first stock in the grid view. The Morningstar Report opens in a web browser. What is the fund's Fair Value price, and what is it currently trading at?
7. Click **Show Full Chart**. A pop-up window appears.



Click this link to see a more detailed view of a stock's price movement over time.

A stock's fair value estimate can be seen here.

8. Select the **3M** option.
9. Click **Fundamentals**, then toggle on the option for **Fair Value**. How has the price and the Fair Value Estimate changed (if at all) over this time period?

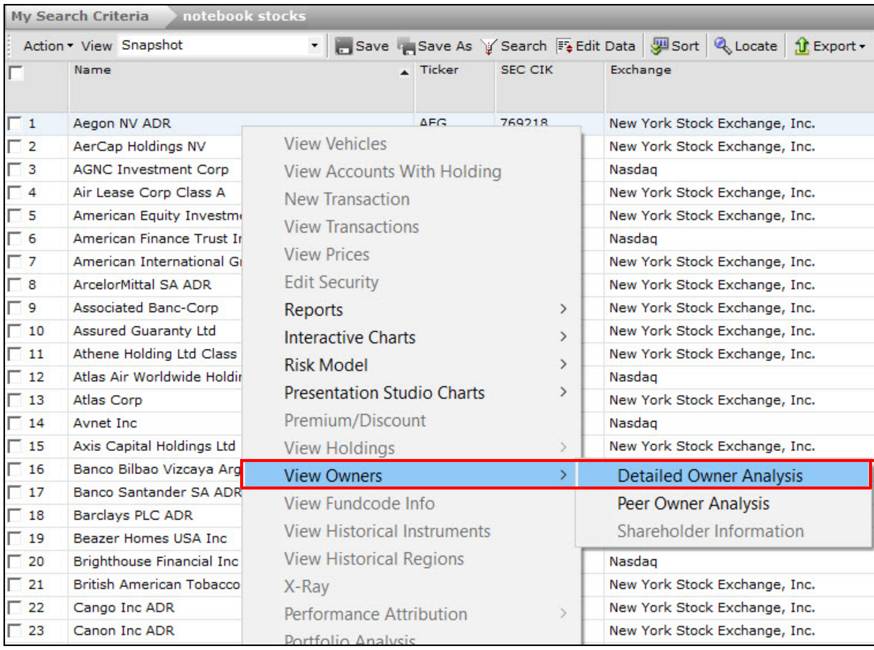


10. Return to Morningstar Direct.

Exercise 7: Find Stock Ownership

The following exercise shows clients how to investigate which funds own a certain stock. To find Stock Ownership, do the following:

1. **Right-click** the first stock in the grid view, then select **View Owners** > **Detailed Owner Analysis**. The Detailed Owners window opens.



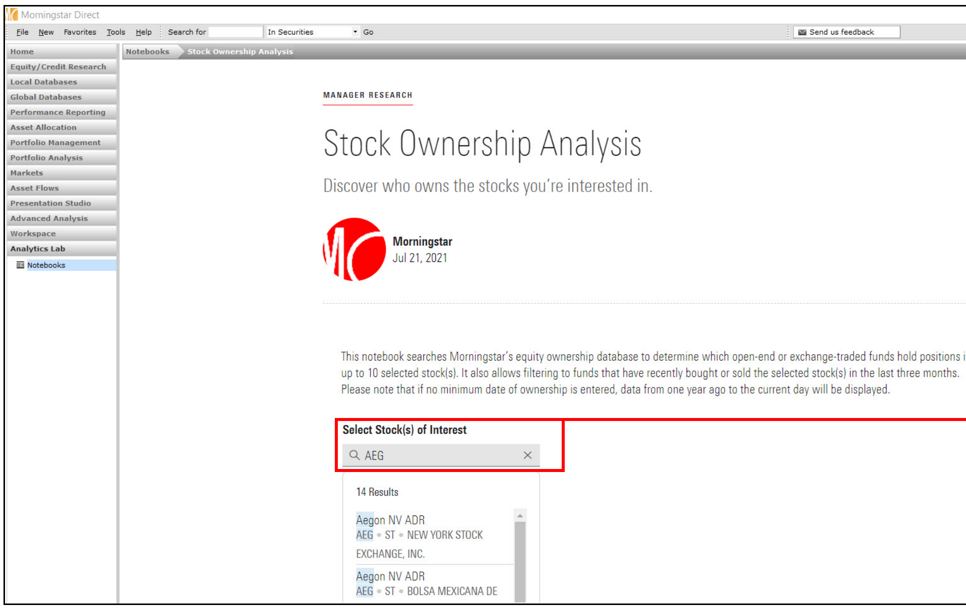
Detailed Owner Analysis to view a stock's ownership.

2. **Double-click** the **Portfolio Weighting %** column header to sort the data in descending order. Note that values, and keep in mind that these are not merely managed investments being shown here.

Exercise 8: Leverage the Stock Ownership Analysis notebook for one stock

This exercise shows clients how to use the Stock Ownership Analysis notebook for a single stock. Do the following:

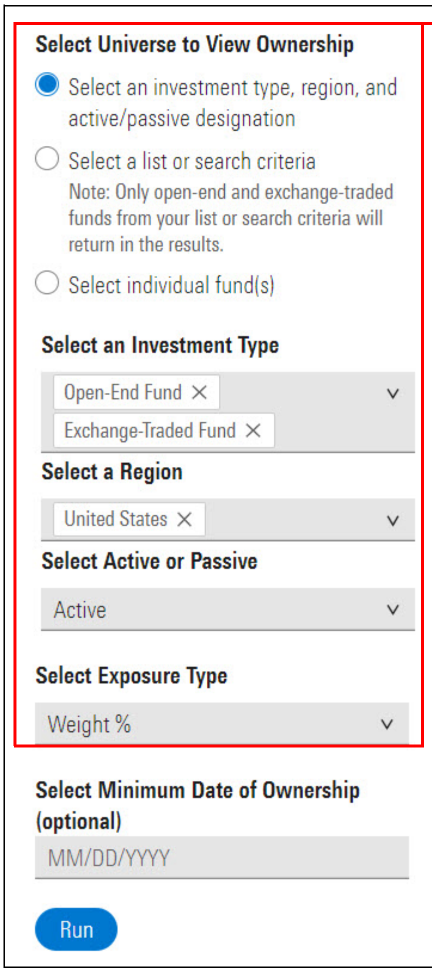
1. Select the **Analytics Lab** module. If the previous notebook is still showing, click the **Notebooks** page in the left-hand navigation pane to reset it.
2. Click the **Stock Ownership Analysis** notebook to open it.
3. In the **Select Stock(s) of Interest** search field, type the **name** or **ticker symbol** of the stock from the first row of the grid view from the search results.
4. Select the correct stock when it appears.



Start by selecting the correct stock.

5. Select the following values:

From this field…	Select this option…
Select Universe to View Ownership	Select an investment type, region, and active/passive designation
Select an Investment Type	Open-End Fund, Exchange-Traded Fund
Select a Region	United States
Select Active or Passive	Active
Select Exposure Type	Weight %
Select Minimum Date of Ownership	Leave blank



Note the options selected.

6. Click **Run**. The notebook is now compiling the data; this can take a minute or two to complete.

The report first displays the Stock Ownership table, which is a list of all open-end funds (in this instance) investing in the stock. The table is sorted by the weights in a descending order and includes the fund's latest portfolio date where it invested in the stock.

The table displays only 10 funds at a time, but you do have a menu in the bottom-right corner to Show 25, 50, 100 or All.

Stock Ownership

Fund Name	Portfolio Date	Aegon NV
Dodge & Cox Stock Fund	2021-06-30	0.357
Dodge & Cox Balanced Fund	2021-06-30	0.22
Avantis® International Equity ETF	2021-08-11	0.088
PMC Diversified Equity Fund	2021-03-31	0.088
Avantis® International Equity Fund	2021-06-30	0.058
DFA World ex US Targeted Val Portfolio	2021-05-31	0.053
DFA Tax-Managed International Value Port	2021-06-30	0.047
DFA International Sustainability 1 Portf	2021-06-30	0.036
DFA Large Cap International Portfolio	2021-06-30	0.029
DFA Intl Social Cor Eq Portfolio	2021-06-30	0.021

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The next section is the Recent Buys and Sells, which contains two tables:

- Managers Who've Recently Established A Position

Managers Who've Recently Established A Position

No Data Available

No funds in your selected universe have established a position in this stock in the last three months.

In some instances, no fund may have initiated a position in the stock in the last three months.

- Managers Who've Recently Sold Their Position

Take note of the fund with the highest percentage in the stock as of its portfolio date of June 2021 that sold out completely of this position.

Managers Who've Recently Sold Their Position

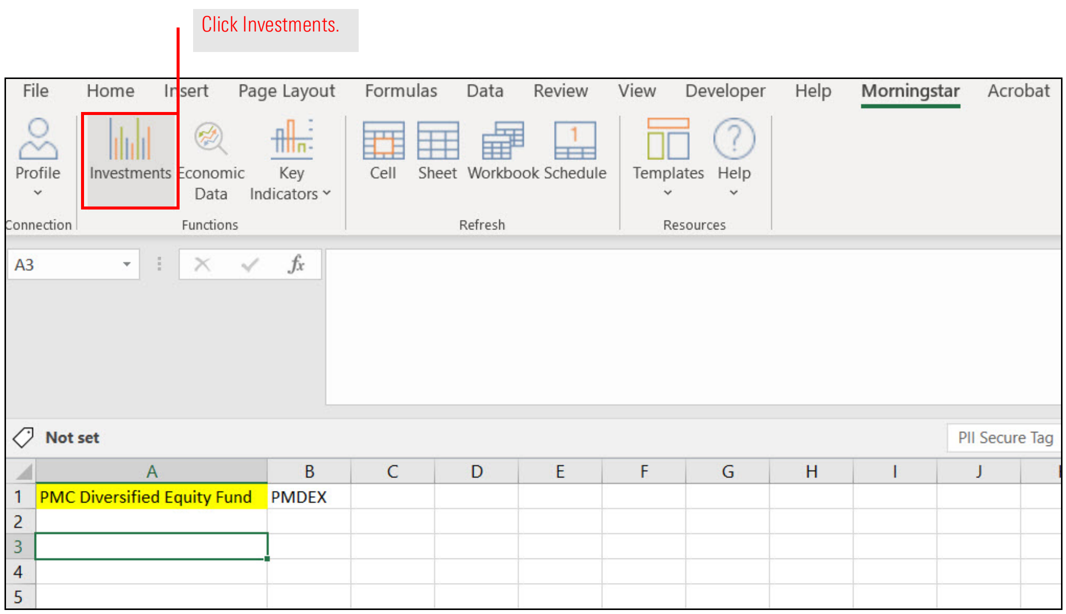
Fund Name	Latest Portfolio Date	Aegon NV
PMC Diversified Equity Fund	2021-06-30	0.088
JHancock International Small Company Fd	2021-06-30	0.019
Strategic Advisers® International Fund	2021-06-30	0.01
Brighthouse/Dimensional Intl Sm Cm Port	2021-06-30	0.001

A stock is considered bought or sold when a position is new or liquidated from a beginning period portfolio to the latest portfolio. The beginning period portfolio is the portfolio reported as of three months ago or up to six months ago, whichever is the most recent reporting date. The latest portfolio is the last portfolio reported within the past three months. For recently bought stock(s), the weight, shares, or market value displayed correspond to the latest portfolio date of the fund. In cases of recently sold stock(s), the weight, shares, or market value correspond to the beginning period portfolio.

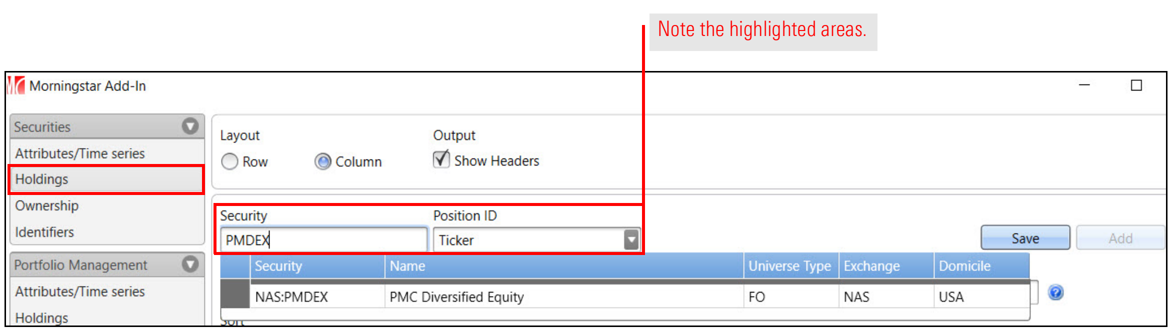
Exercise 9: Leverage the MSHOLDING Formula in Excel Add-In

A similar holding analysis can be conducted through Excel Add-In. The Morningstar® Excel Add-In allows users to retrieve data points from the Morningstar databases within Microsoft® Excel® for further calculation, formatting, or charting. Think of it as an alternative to exporting data from Morningstar Direct. Download this Excel file, then do the following:

1. In the Excel file provided, select the **Morningstar** tab.
2. Click the **Profile** icon, then select **Direct**.
3. Enter your **credentials** then click **Login**.
4. **Copy** cell **B2**.
5. Select cell **A3**, where the data will display.
6. From the Morningstar toolbar, click **Investments**.



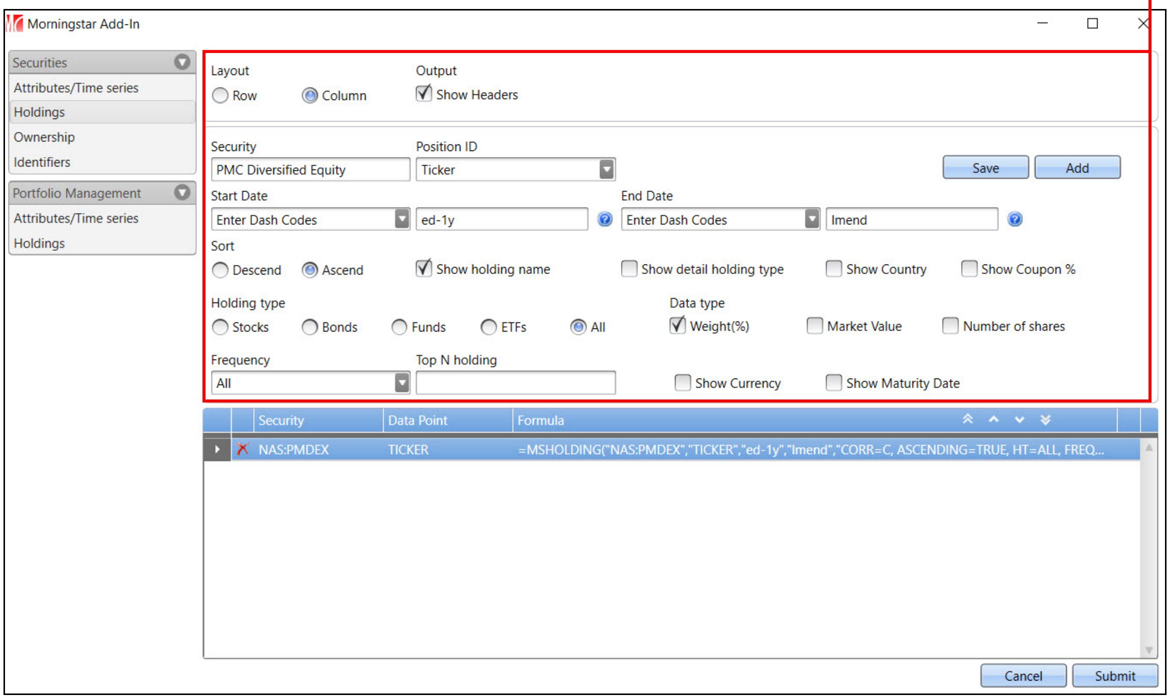
7. Under the Securities heading, select **Holdings**.
8. From the **Position ID** drop-down field, select **Ticker**.
9. In the **Security** field, **paste** the ticker, then select the security when it appears.



10. The option for **Column** should be selected, and the check box for **Show Headers** should also be selected.
11. From the **Start Date** drop-down field, select **Enter Dash Codes.**

12. Enter **ed-1y**.
13. From the **End Date** drop-down field, select **Enter Dash Codes**.
14. Enter **lmend**.
15. From the Data type section, the option for **Weight (%)** should be selected.
16. Leave all other settings as is and click **Add**, then click **Submit**.

Note the values selected for the Holdings set up window.



17. Click **Ctrl + F** then search for the same stock being analyzed in the notebook.

A	B	C	D	E
EQR	Equity Residenti	0.12	0.12	0.13
AMGN	Amgen Inc	0.31	0.21	0.13
CS	Credit Suisse Grc	0.16	0.17	0.13
ALXN	Alexion Pharmac	0.11	0.13	0.13
NEE	NextEra Energy I	0.15	0.15	0.12
PKG	Packaging Corp o	0.13	0.12	0.12
NFLX	Netflix Inc	0.20	0.19	0.12
VST	Vistra Corp	0.14	0.13	0.12
WMB	Williams Companies Inc		0.02	0.12
NOW	ServiceNow Inc	0.12	0.17	0.11
CHTR	Charter Commun	0.36	0.33	0.10
HCMLY	LafargeHolcim Lt	0.15	0.15	0.10
CLX	Clorox Co	0.01	0.10	0.09
EQNR	Equinor ASA ADR	0.06	0.06	0.09
AEG	Aegon NV ADR			0.09
RMD	ResMed Inc	0.07	0.09	0.08
MQBKY	Macquarie Group	0.07	0.08	0.08
TWLO	Twilio Inc A	0.05	0.05	0.08
EDPFY	EDP - Energias de	0.00	0.00	0.08
IBM	International Bus	0.08	0.08	0.08
HSNGY	Hang Seng Bank I	0.07	0.07	0.08
ESS	Essex Property T	0.04	0.05	0.08
PXD	Pioneer Natural I	0.11	0.13	0.07
TTD	The Trade Desk I	0.07	0.06	0.07
IFNNY	Infineon Technol	0.06	0.07	0.07
SXYAY	Sika AG ADR		0.07	0.06
DIS	The Walt Disney Co			0.06
RSNAY	RSA Insurance Group PLC ADR		0.03	0.06

Note the stock's previous position.

Exercise 10: Leverage the Stock Ownership Notebook with multiple stocks

To view the stock ownership for multiple stocks, do the following:

1. In the **Select Stock(s) of Interest** search field, type **L**.
2. Click **Lowes Corp** listed on the New York Stock Exchange to select it.
3. From the Stock ownership table, click the **menu** in the bottom-right corner then select **50**.

   ☞ Note: The Stock Ownership table displays the funds that own Aegon NV and if they also own Loews Corp. The funds that own only Loews Corp are displayed last.

Stock Ownership

Fund Name	Portfolio Date	Aegon NV	Loews Corp
Dodge & Cox Stock Fund	2021-06-30	0.357	0
Dodge & Cox Balanced Fund	2021-06-30	0.22	0
PMC Diversified Equity Fund	2021-03-31	0.088	0
Avantis® International Equity ETF	2021-08-11	0.088	0
Avantis® International Equity Fund	2021-06-30	0.058	0
DFA World ex US Targeted Val Portfolio	2021-05-31	0.053	0
DFA Tax-Managed International Value Port	2021-06-30	0.047	0
DFA International Sustainability 1 Portf	2021-06-30	0.036	0
DFA Large Cap International Portfolio	2021-06-30	0.029	0
DFA TA World ex US Core Equity Port	2021-06-30	0.021	0

4. From the Recent Buys and Sells drop-down, select **Loews Corp**.
5. Answer the following questions:

How many managers recently bought positions?	
How many managers recently sold positions?	