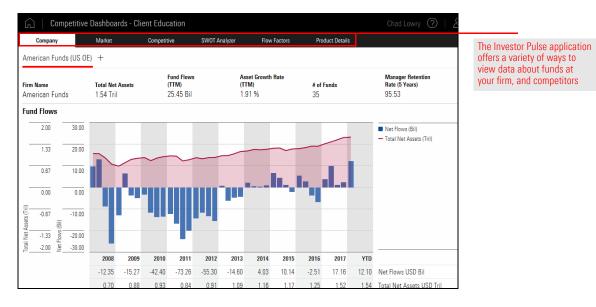
Using Investor PulseSM to Understand Asset Flows, Competitive Positioning, and More

Investor PulseSM offers you insight into asset flows and factors influencing asset flows, to help inform decisions you make related to staffing and marketing. In addition to evaluating funds from your own firm, you can also conduct competitor analysis and consider new trends in the marketplace.

Overview

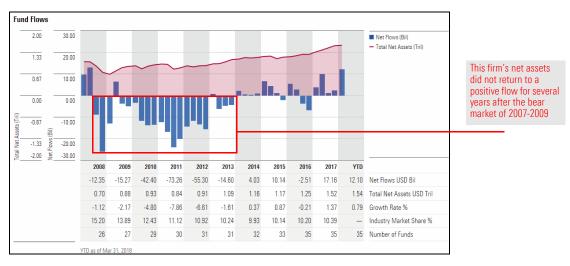
This exercise guide shows you how to do the following:

- Understanding the Content Available in Investor Pulse (page 2)
- Identifying the Top Funds at Your Firm (page 10)
- Selecting a Subadvisor or Affiliate Firm (page 11)
- Evaluating a Firm for Acquisition (page 13)
- Targeting Ideas for New Products (page 17)



Before moving onto workflow exercises where you will practice putting the data from Overview the application into practice, a quick primer on the content available in the application should prove useful. This section explains how data for funds is organized, and describes the data available on each worksheet in the application. Data for funds in Investor Pulse is organized in a hierarchy. At the top is the "brand" How does Investor Pulse (for example, Diamond Hill), and beneath each brand are "firms" associated with that organize data for funds? brand (for example, Diamond Hill Capital Management). You can choose which brands and firms to display data for throughout Investor Pulse. The Company worksheet shows information for only one firm at a time. At the top of What does the Company the worksheet, you can see a collection of data points related to total net assets, fund worksheet show me? flows, asset growth rate, number of funds, and a firm's manager retention rate. Competitive Dashboards - Client Education Company Market Comp SWOT Analyzer Flow Factors Product Details Note the data points here American Funds (US OE) + Fund Flows Asset Growth Rate (TTM) Manager Retention Rate (5 Years) Total Net Assets (TTM) # of Funds 25.45 Bil 1.91% 95.53 1.54 Tril American Funds 35

Below this data is a Fund Flows area with a chart showing a firm's total net assets (the red shaded area) and quarterly net flows (blue bars) for the trailing 10 years. Below that chart is a table showing the annual values for each of those years for net flows, total net assets, growth rate, industry market share, and number of funds.



Firm Name

Finally, at the bottom of the Company worksheet you can see a breakdown of the Morningstar Ratings earned by funds at a firm, as explained in the following table:

This option	Has the following areas	Which shows you
Analyst Rating	Analyst Rating	The percent of assets at a firm represented by a certain Morningstar Analyst Rating. Note that the total does not equal 100%, because not all funds at a firm receive a Morningstar Analyst Rating. Also, this data reflects information for the qualitative Morningstar Analyst Rating; funds receiving a quantitative Morningstar Analyst Rating are not shown here.
	Top Analyst Rated Funds	The top five funds at a firm with a Morningstar Analyst Rating, as ranked by Net Assets.
	Recent Fund Ratings Changes	The five most recently updated Morningstar Analyst Ratings for funds at a firm. Compare the current Analyst Rating with the Previous Rating.
Morningstar Rating	Morningstar Rating	The percent of assets at a firm represented by each Morningstar Rating.
	Highest Rated Funds	The five largest highest-rated funds at a firm, using the Morningstar Rating Overall.
	Lowest Rated Funds	The five largest lowest-rated funds at a firm, using the Morningstar Rating Overall.

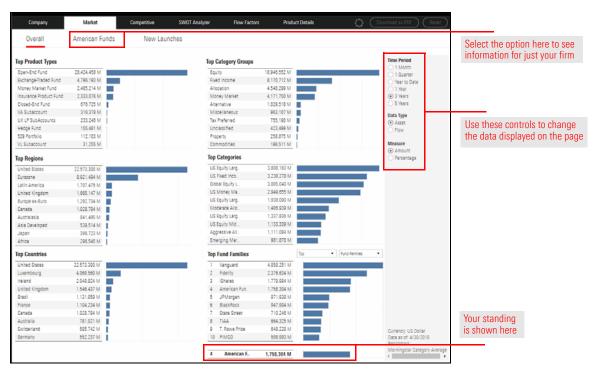
Analyst Rating	% of Assets				Top Analyst Rated Funds	Analyst Rating	Fund Flows TTM (Mil)	Return % 3-Year	Rank in Cat % 3-Year
🕽 Gold	47.06				American Funds Europacific Growth R6	👽 Gold	6,116.57	7.04	27
🖟 Silver	29.02				American Funds Capital World Gr&Inc A	👽 Gold	-4,691.09	7.94	36
Bronze	20.66				American Funds Washington Mutual A	👽 Gold	-4,861.72	10.25	6
Veutral	2.51				American Funds Fundamental Invs A	👽 Gold	-4,120.07	11.30	5
legative	0.00				American Funds New Perspective A	👽 Gold	-2,535.87	9.88	14
		0%	30	60	USD Fund Flows TTM as of Apr 30, 2018 Return as	s of Apr 30, 2018 Analyst	Previous		
					Recent Fund Ratings Change	Rating	Rating	Rating Da	ate
					American Funds Interm Bd Fd of Amer A	🐯 Bronze	Neutral	Jan 24, 2	2018
					American Funds ST Bd Fd of Amer F3	Neutral	Not Rated	Jan 24, 2	2018
					American Funds Washington Mutual F3	👽 Gold	Not Rated	Dec 22, 2	2017
					American Funds Bond Fund of Amer A	🐯 Bronze	Neutral	Dec 19, 2	2017
					American Funds Capital World Bond F3	Neutral	Not Rated	Dec 19, 2	2017

Note the use of the toggle here to switch between different sets of data The Market worksheet shows information for fund assets, by amount, for the following sets of data:

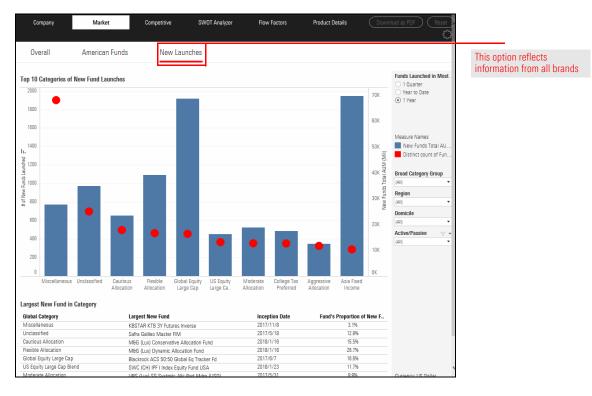
What does the Market worksheet show me?

- ► the overall market
- ► your brand, and
- ▶ new fund launches.

By default, this page shows data for the trailing three years, but you can change this setting (and others) by using the controls on the right side of the page. Additionally, click any bar (for example, Open-End Fund) to filter information on the page by that variable. (Click the bar again to see all data again.) When looking at Overall market data, you can see information for just your brand at the bottom-right corner.



The New Launches option on the Market worksheet shows both the number of new funds launched for the top 10 global categories with the most number of product launches, and the assets those funds have attracted. The table below the chart shows the top fund in each global category and the proportion of the new AUM within that global category that the most successful fund was able to attract.



The Competitive worksheet allows you to analyze both fund flows and performance of funds at your firm, compared to up to nine competitors. Both fund flow and performance data is provided at the following levels:

What does the Competitive worksheet show me?

- brand
- broad category group, and
- ► Morningstar Category.

Use the controls at the right to not only change the time period being reflected in the data but also to filter by firm, brand, product type, share class, and more.

() Co	ompetitive Dash	boards - Client	Education				Cha	d Lowry 🔿 🖉	
Company			ompetitive	SWOT Analyzer	Flow Factors	Product Details		nload as PDF (Reset	Toggle to see performance data
Fund Flo	w Perf	formance							
Aggregate Fu	American Funds	BlackRock	Fidelity	Franklin Templeton	Invesco	Putnam	Vanguard (971.6)	Time Period 1 Month 1 Quarter Vear to Date 1 Year 3 Years 5 Years Branding Name [All]	Use these controls to change the data displayed on the page
Aggregate Fu	nd Flows by Broad	d Category Group	(Bil)					Firm Name (All) Product Type	
6.11a anti-a	American Funds	BlackRock	Fidelity	Franklin Templeton	Invesco	Putnam	Vanguard	(All)	
Allocation								Share Class Type	
Commodities								(All)	
Convertibles								Active/Passive	
Equity								(All)	
Fixed Income								Strategic Beta	
Miscellaneous								(All)	
Money Market Property								Broad Category Group	
Topolity								190	

The SWOT chart here plots funds from your brand and up to nine competitors. A fund's position on the chart is determined by both its flow data relative to category peers (the X axis), and another data point. The default data point for the Y axis is the SWOT Score, which is a combination of the following data points:

- ► Excess Return
- ► Expense Ratio Equivalent
- Morningstar Rating
- ► Fund Age, and
- ► AUM.

You can also select a time period the data should reflect, and filter out funds by various criteria via a series of drop-down fields on the right side of the worksheet.

Each quadrant on the SWOT chart is further subdivided into four sections. Funds appearing in the extreme sub-quadrant of each section are given a particular label, as described in the following table:



Section	Label	Flow Factor Attribute (Y Axis)	Realized Flows Relative to Category Peers (X Axis)
А	Gifted	Top quartile	Bottom quartile
В	Best in Class	Top quartile	Top quartile
С	Laggards	Bottom quartile	Bottom quartile
D	Vulnerable	Bottom quartile	Top quartile
E	Contenders	Above median	Below median

What does the SWOT Analyzer worksheet show me?

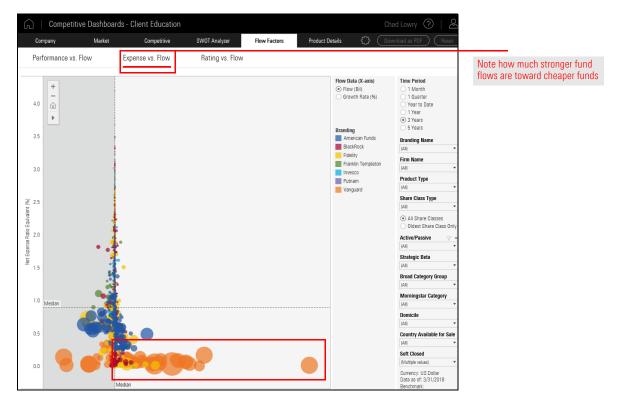
Section	Label	Flow Factor Attribute (Y Axis)	Realized Flows Relative to Category Peers (X Axis)
F	Stars	Above median	Above median
G	Underperformers	Below median	Below median
Н	Anomalies	Below median	Above median

The Flow Factors worksheet plots funds from multiple firms onto an X-Y chart that considers two factors. The first is either net flows or growth rate (which always appears on the X-axis), while the second (Y-axis) can be one of the following options:

What does the Flow Factors worksheet show me?

- ► Excess return
- ► Net expense ratio (equivalent), or
- ► Morningstar Rating.

The size of the bubble on the chart indicates the relative size of the fund; the bigger the bubble the larger the fund. The color identifies the firm. As with other worksheets, you can use the controls to the right to change the data being displayed on the worksheet.



The table on the Product Details worksheet shows basic information for each fund at all brands and firms. You cannot change the columns of data shown here, but you can use the controls to the right to filter the data shown in the table.

What does the Product Details worksheet show me?

Company	Market	Comj	petitive	SWOT Analyzer	Flow Factors	Pro	oduct Det	ails			set {
Branding Name	Share Class Name	Manager Name	Broad Category Gro	Morningstar Category	Morningstar Rating Overall	Net Asset	Excess Return	Net Flo =	Growth Rate (Time Period	~
American Funds	American Funds Europ	Mark E. Denning;	Equity	US Fund Foreign Large Gr	****	9.5	0.7	7,448.3	640.9	1 Quarter	
	American Funds Europ	Mark E. Denning;	Equity	US Fund Foreign Large Gr	****	68.8	0.7	6,757.9	13.2	 Year to Date 1 Year 	
	American Funds Tax Ex.	Neil L. Langberg;K	Tax Preferred	US Fund Muni National In	****	5.1	1.4	5,034.4	5,444.2	3 Years	
	American Funds Ameri	John H. Smet;Hild	Allocation	US Fund Allocation50%	****	19.1	2.1	4,937.1	38.8	5 Years	
	American Funds Funda	Dina N. Perry; Mic	Equity	US Fund Large Blend	****	5.8	2.5	4,676.2	959.0	0.000	
	American Funds Growt	Donald D. O'Neal;	Equity	US Fund Large Growth	****	27.4	0.1	4,343.9	23.0		
	American Funds 2025	Alan N. Berro; Ja	Allocation	US Fund Target-Date 2025	****	6.7	0.8	3,150.8	98.0	(AII)	_
	American Funds 2030	Alan N. Berro; Ja	Allocation	US Fund Target-Date 2030	****	7.6	1.9	3,099.8	79.1	Firm Name	
	American Funds Growt	Donald D. O'Neal;	Equity	US Fund Large Growth	****	3.9	0.1	3,014.1	711.4	(AII)	•
	American Funds Washi.	Alan N. Berro; Jeff	Equity	US Fund Large Value	****	16.0	4.8	2,998.6	26.3	Product Type	
	American Funds Invmt	Donald D. O'Neal;	Equity	US Fund Large Blend	****	12.0	-0.9	2,870.2	35.7	(All)	۰,
	American Funds Interm.	Mark A. Brett;Dav	Fixed Income	US Fund Short-Term Bond	***	7.0	-0.8	2,723.3	63.3	Share Class Type	
	American Funds 2035	Alan N. Berro; Ja	Allocation	US Fund Target-Date 2035	****	5.9	2.5	2,686.3	98.1	(All)	
	American Funds Capita	James B. Lovelac	Allocation	US Fund World Allocation	***	3.5	-2.2	2,627.4	320.8		
	American Funds New	Robert W. Lovela	Equity	US Fund World Large Sto	****	3.4	5.5	2,618.1	508.9	 All Share Classes 	
	American Funds Bond	John H. Smet;Dav.	Fixed Income	US Fund Intermediate-Ter	***	6.6	-0.3	2,567.5	63.9	 Oldest Share Class 	On
	American Funds Ameri	John H. Smet;Hild.	Allocation	US Fund Allocation50%	****	2.8	2.1	2,548.7	2,430.1	Active/Passive	
	American Funds AMCA.	Claudia P. Hunting	Equity	US Fund Large Growth	****	3.1	-1.0	2,440.2	821.6	(All)	
	American Funds Invmt	Donald D. O'Neal;	Equity	US Fund Large Blend	***	2.9	-0.9	2,372.3	791.2	Strategic Beta	
	American Funds US Go	Fergus N. MacDo	Fixed Income	US Fund Intermediate Go	****	7.2	-0.2	2,370.3	48.8	(All)	
	American Funds Bond	John H. Smet;Dav.	Fixed Income	US Fund Intermediate-Ter	***	2.3	-0.3	2,272.0	3,192.1	6.4	

Use these controls to determine which rows appear in the table

Identifying the Top Funds at Your Firm

As the Chief Marketing Officer at your firm, which funds should you decide to promote in the coming year? The SWOT Score factor takes into account multiple factors predictive of a fund's success, including a fund's age, its AUM, performance, and more. Looking at this variable in conjunction with flow data allows you to understand which funds at your firm are the top performers, and which are laggards or underperforming.

For this scenario, the "top funds" at your firm will be determined by those that not only have above-median net flows, but also an above median SWOT Score. These funds should continue to attract new investors and assets.

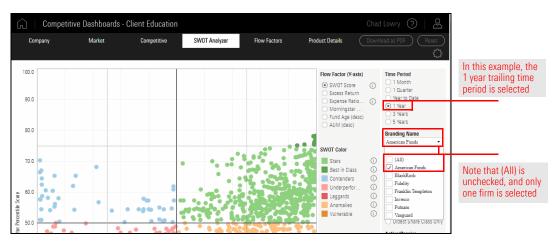
The work for this exercise will be done from the SWOT Analyzer worksheet. The main focus is to isolate the chart to show only funds from your firm, and ensure the correct time period is being reflected in the chart.

You can isolate funds from your firm on a worksheet one of two ways: either use the Settings icon in the top-right corner to remove all brands except your own, or use the filter fields on the right side of the worksheet to do the same. In this exercise, you will use the filter fields.

Note: Changes made either via the Settings icon or the filter fields applies the changes to not just the current worksheet, but all worksheets in Investor Pulse.

Do the following:

- 1. Select the SWOT Analyzer worksheet.
- 2. From the Flow Factor (Y Axis) area, be sure **SWOT Score** is selected.
- 3. Select an option for the **Time Period**.
- 4. From the **Branding Name** field, **uncheck (All)**, then select the **name** of just your firm. The SWOT chart updates to show information for only your firm.



5. Move your mouse over each symbol to identify which funds are the top performers for your brand, and which are vulnerable to losing assets.

Overview

Exercise 1: Finding top funds at your firm

Selecting a Subadvisor or Affiliate Firm

The stakes are high when looking for a subadvisor or affiliate firm for a fund at your firm. Analyzing up to nine fund families as peer brands can help you make the best choice. This exercise involves using the Competitive worksheet to identify funds with top-performance in the category for which you are considering using a subadvisor.

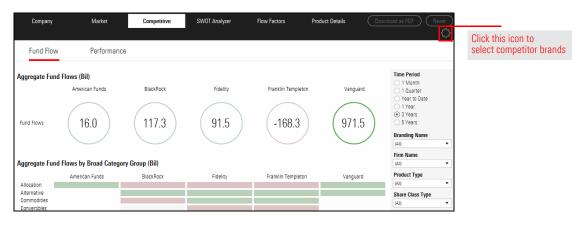
Your firm is considering using a subadvisor for a new Alternatives fund. The Competitive worksheet allows you to identify top performance by broad category groups, to help you discover which brands have done well in this space. First, however, you need to ensure the brands you are considering are selected via the Settings icon. The brands you select here will appear on all worksheets in Investor Pulse.

Overview

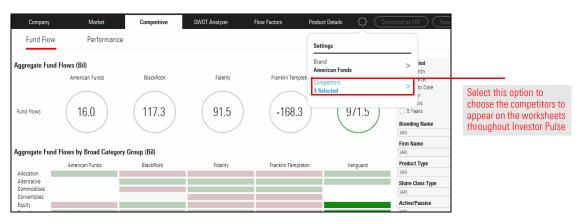
Exercise 2: Identifying a top firm in the Alternatives broad category group

Do the following:

- 1. Select the **Competitive** worksheet.
- 2. Click the Settings icon.

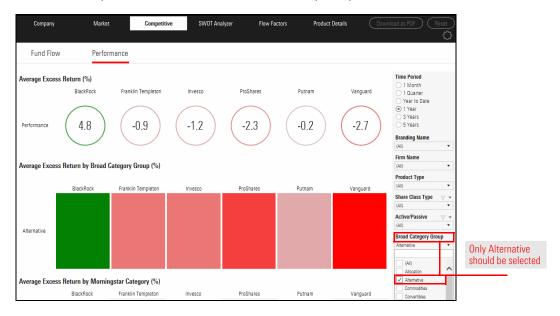


3. Select Competitors.

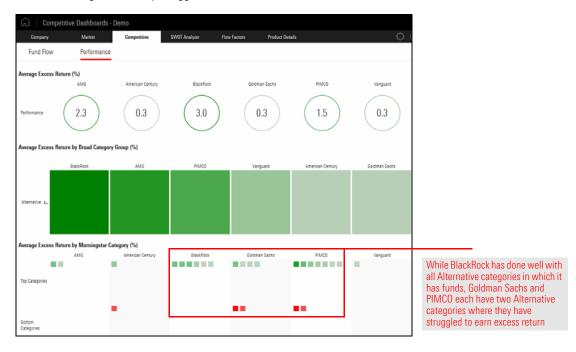


- 4. Enter the name of a competitor to add, then click its name to add it.
- 5. Repeat step 4 to add up to a total of nine competitors, then click **Done**.

- 6. Select the Performance tab.
- 7. Select an option for the Time Period.
- 8. From the **Broad Category Group** drop-down field, **uncheck (AII)**, then check only **Alternative**. The data updates to show information for only that broad category group. Which firms have provided the most excess return for the time period you selected?



9. Evaluate the information in the Average Excess Return by Morningstar Category (%) area. Which specific alternative categories are the competitors best at? In which alternative categories do they struggle?



Imagine your firm is considering purchasing another. One question to ask is how many Stars or Best in Class funds they have. Another question to consider is whether those funds complement the funds from your firm, or do they merely duplicate the products you already have?

In this exercise, you will use the SWOT Analyzer worksheet to isolate just your firm and that of the firm you're considering acquiring. Do the following:

- 1. Select the SWOT Analyzer worksheet.
- 2. From the Flow Factor (Y Axis) area, ensure **SWOT Score** is selected.
- 3. Select an option for the **Time Period**.
- 4. From the **Branding Name** field, **uncheck (All)**, then select the **name** of just your brand, and the brand you are considering acquiring. The SWOT chart updates to show information for only the brands you have selected. How are the Best in Class and Stars funds from that brand positioned on the chart relative to your own?
 - Note: If the firm you are considering acquiring does not appear under the Branding Name field, click the Settings icon, then select the Competitors option. Type the name of the brand you want to acquire, then click its name to select it. Click Done. Once the brand is added, you can repeat step 4 to ensure only your brand and the brand you are considering acquiring are displayed on the SWOT chart.



Overview

Exercise 3: Evaluate a firm for acquisition

In addition to seeing whether any of a brand's funds appear in the Best in Class and Stars area, it can also be useful to evaluate all funds at the brand you are considering acquiring, to see how it changes your market position for AUM, asset flow, and more. This process requires the following steps: Exercise 4: Combining brands for analysis

- 1. Combine another brand with your own via the Settings icon.
- 2. Use the Market worksheet to evaluate the statistics for the new, combined brands.
- 3. Use the Company worksheet to evaluate the data for each firm from the combined brands.

Do the following:

- 1. From any worksheet where you can see the Settings icon, click the **Settings** icon.
- 2. Select Brand.

G Competit	ive Dashboards -	Client Education					Chad Lowry (
Company	Market	Competitive	SWOT Analyzer	Flow Factors	Product Details	C	Download as PDF	
Overall	American Funds	New Laund	hes			Settings		
Top Product Types				Top Category Grou	ips	Brand American Funds	>	Use the Settings in
Open-End Fund	30,161,095 M			Equity	19.410.763 M			
Exchange-Traded Fund	4,781,245 M			Fixed Income	8.729.853 M	Competitors	>	to select this optic
Insurance Product Fund	2,582,968 M			Money Market	5.356.252 M	6 Selected		
Money Market Fund	2,499,231 M			Allocation	5,104,168 M			
VA Subaccount	1,046,540 M	Ē.		Alternative	1,072,214 M		O 5 Years	
Closed-End Fund	816,877 M	í i		Miscellaneous	1.026.188 M		Data Type	
UK LP SubAccounts	223,876 M	Ĩ.		Tax Preferred	759,365 M		 Asset 	
Hedge Fund	187,966 M			Unclassified	418.242 M		O Flow	
529 Portfolio	111,164 M			Property	268.807 M		0.000	
VL Subaccount	31,216 M			Commodities	193,607 M		Measure (*) Amount	
Top Regions				Top Categories			Amount Percentage	
United States	23.347.258 M			US Equity Larg	3,877,709 M			
Eurocone	8,919,141 M			US Fixed Inco	3.352.273 M			
Asia Emerging	2,147,703 M			Global Equity L	3,035,704 M			
Latin America	1,780,863 M			US Money Ma	2,959,903 M			
United Kingdom	1,633,110 M			US Equity Larg	2.022,514 M			
Europe ex-Euro	1,308,184 M			Moderate Allo	1,619,492 M			
Canada		i		US Equity Larg	1,402,461 M			
Australasia	971.745 M			Aggressive AlL.	1,315,386 M			

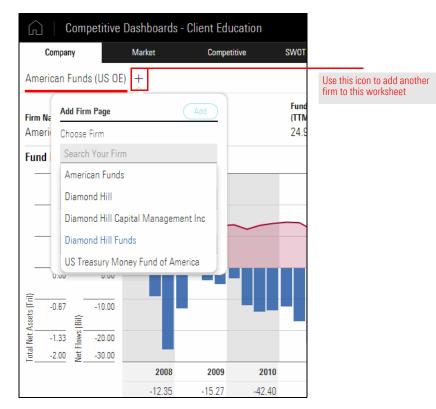
- 3. In the **Search** field, type the **name** of a brand you want to combine with your own. When its name appears, click it.
- 4. To add more brands, repeat step 3.
- 5. Click **Done**. The Settings menu closes, and an asterisk appears to the right of your brand's name to indicate the change.

- 6. Select the Market worksheet.
- 7. Click the name of your updated **brand**, and evaluate the impact of the new brand in each of the sections.

Company	Market	Competitive	SW0T Analyzer	Flow Factors Product	Details		<u></u>	C
Overall	American Funds *	New L	aunches					Note the asterisk to the
Top Product Types		_		Top Category Groups				right of the brand name,
Open-End Fund	1,538,982 M			Equity	1.213.960 M			indicating that it has been
Insurance Product F.,	136.497 M			Allocation	404.367 M			modified from its default set
VA Subaccount	64,013 M			Fixed Income	142,925 M			
529 Portfolio	55,666 M	î i		Tax Preferred	30,807 M			č
Money Market Fund	16,678 M	ī i		Money Market	18.388 M			a la
VL Subaccount	614 M	í		Alternative	12 M			
Hedge Fund	12 M							
Top Regions				Top Categories				e e
Ton Ragione				Top Catagoriae				
Top Regions	1 810 479 M			Top Categories	118 554 M			N G C
	1,810,439 M			US Equity Larg	316,554 M			M C C
	1.810.439 M			US Equity Larg US Equity Larg	238,652 M			e e
	1,810,439 M			US Equity Larg US Equity Larg Global Equity			-	
	1,810,439 M			US Equity Larg US Equity Larg	238,652 M 204,651 M 197,620 M		-	
	1,810,439 M			US Equity Larg US Equity Larg Global Equity Global Equity L	238,652 M 204,651 M		-	A C
	1.810,439 M			US Equity Larg US Equity Larg Global Equity Global Equity L. Moderate Allo	238,652 M 204,651 M 197,620 M 165,292 M		-	
	1,810,439 M			US Equity Larg US Equity Larg Global Equity Global Equity L Moderate Allo US Equity Larg	238,652 M 204,651 M 197,620 M 185,292 M 165,219 M			
	1,810,439 M			US Equity Larg. US Equity Larg. Global Equity Global Equity Moderate Allo. US Equity Larg. Allocation	238,652 M 204,651 M 197,620 M 165,292 M 165,219 M 123,248 M			A C
Top Regions United States	1,810,439 M			US Equity Larg. US Equity Larg. Global Equity Global Equity Moderate Allo. US Equity Larg. Allocation Aggressive All.	238,652 M 204,651 M 197,620 M 165,292 M 165,219 M 123,248 M 114,931 M			
United States	1.810.439 M			US Equity Larg. US Equity Larg. Global Equity Global Equity L. Moderate Allo. US Equity Larg. Allocation Aggressive All. US Finde Inco.	238,652 M 204,651 M 197,620 M 185,292 M 165,219 M 123,248 M 114,931 M 102,528 M 46,159 M	το Ρούσο	•)0	
United States	1.510,439 M			US Equity Lang US Equity Lang Global Equity Global Equity L Moderse Allo. US Equity Lang Altocation Aggressive All US Fixed Inco Global Equity	238,652 M 204,651 M 197,620 M 165,219 M 165,219 M 123,248 M 114,931 M 102,528 M 46,159 M	Top Products	•10	
				US Equity Lang US Equity Lang Global Equity Global Equity L Moderata Alio. US Equity Lang Allocation Aggressive Ali US Freed Inco Global Equity Top Products	238,652 M 204,651 M 197,620 M 185,292 M 185,292 M 123,248 M 114,931 M 102,526 M 46,159 M	Tep Products	•10	2

8. Select the **Company** worksheet. Here, only one firm is shown at a time.

9. To see one of the additional firm(s) added to your brand, click the **Add Firm** icon. The Add Firm Page menu opens.



- 10. From the **Choose Firm** field, select the **name** of a firm you want to add to the page.
- 11. If desired, change the selection from the Choose Region and Choose Product Type fields.
- 12. Click **Add**. The new firm is added and selected by default.
 - Note: You can repeat this procedure to add even more firms, as some brands will have multiple firms associated with them. However, not all firms will have data available to display on the Company worksheet.

Targeting Ideas for New Products

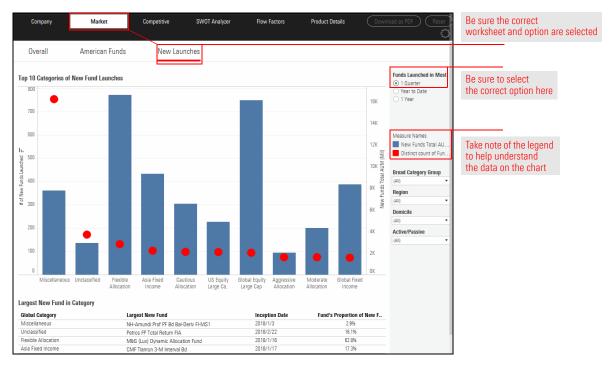
Which global categories have seen the most new product launches? For which global category have investors recently shown the greatest interest? Which fund has attracted the most assets in that global category, and what percentage of total AUM for that global category does the most successful fund represent? These questions can be answered from the New Launches area of the Market worksheet.

In this exercise, you will identify assets allocated to new funds launched in the most recent quarter. Do the following:

- 1. Select the Market worksheet.
- 2. Click the New Product option.
- 3. From the Funds Launched in Most Recent area (to the right), select **1 Quarter**. The page updates automatically.

Exercise 5: Find information on new product launches

Overview



- 4. Answer the following questions:
 - ► Which global category has seen the most number of new funds launched?
 - ► The new funds from which global category has gained the most assets?
 - ► For the global category that has gained the most assets, what is the name of the brand with the fund with the largest proportion of AUM?