# **Total Portfolio Attribution**

Total portfolio attribution allows users to analyze the portfolio decision maker's contribution to performance in the selection of investment managers and the allocation of assets to each manager driven by the strategic asset allocation policy. Since there are two sets of decision makers (Plan Sponsor/Consultant and the investment managers), it is important to analyze their contributions separately.

## Set your Default Settings

1. Go to the Total Portfolio/Interactive folder and click on Reports.

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Global Databases		Name 🔺	Portfolio
Performance Attribution			
Equity/Interactive	<b>□</b> 1	▼ Morningstar Report Templates	
🔟 Reports	<b>2</b>	Broad Asset Class (US)	
🗉 Templates	П 3	Broad Category Group & Morningstar Categ	
Archived Reports	□ 4	Global Category Group	
🕨 🚞 Equity/PDF	5	Morningstar Institutional Category	
▼ Total Portfolio/Interactive	<b>□</b> 6	▼ My Reports	
E Reports	<b>□</b> 7	3.7 Demo	3.7 Demo_Aggr
Templates			
Archived Reports Custom Security Classifications			

2. Click on the General Settings to set your Defaults.

3. In the Workflow tab, set your settings for One Portfolio or Two Portfolios (Comparison) .

🚺 User P	references				
Select defa	3 ault workflow settings.				
	Workflow	Batch			
Defaul	t Portfolio	3.7 Demo_Aggr		٩	
Defaul	t Template	Sample 1		✓	
Defaul	t Risk Free/ Cash	3 Month T-Bill		٩	
110,7					
Help			 Reset	ОК Са	ancel

4. In the *Batch* tab, set your output locations.

🚺 User Preferences	
Select default batch setti	ngs.
Workflow	Batch
Default Batch Se	ttings
Output location	ocuments and Settings\lakman\My Documents\Performance Attribution
	Append filename with DDMMYYYY
	Save report results to archive
Help	Reset OK Cancel

### **Automatically Assign Policy Weights**

**1.** When you begin to create Total Portfolio Attribution, you have the ability to automatically assign your policy weights with an existing aggregate or you can manually assign the weights to your policy. In this exercise, we will retrieve the weights from an existing aggregate to automatically populate the policy weights. See Aggregate chapter for detail on how to create an Aggregate. Go to the Performance Attribution folder and click *Reports* under the Total Portfolio/Interactive folder.

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Local Databases	Action	Action - New 🔂 Export 🕒 PDF 🕤 Batch Management 🌆 General Settings						
Global Databases		Name	*	Portfolio				
Performance Attribution								
Equity/Interactive	<b>□</b> 1	▼ Morningstar Report Templates						
Reports	🗖 2	Broad Asset Class (US)						
🔟 Templates	<b>□</b> 3	Broad Category Group & Morningsta	ar Categ					
🔟 Archived Reports	□ 4	Global Category Group						
Equity/PDF	5	Morningstar Institutional Category						
Total Portfolio/Interactive	<b>6</b>	▼ My Reports						
	<b>7</b>	3.7 Demo		3.7 Demo_Aggr				
Templates     Archived Reports								
🔲 🛄 Custom Security Classifications								

2. Click on New to be taken to the Report Workflow dialog.

**3.** Go to the *Portfolio* and click on the magnifying glass to retrieve your aggregate that populates the managers.

Mar Report Work	cflow	×
Select report p	parameters.	
Portfolio	Sample Total Portfolio Basic	3
Policy	Select from Universes	~4
	Sample Policy (Aggregate)	5
Template	3.8 Template	6 🖌 🖨
Currency	US Dollar	~
Help		7 OK Cancel

4. Go to the *Policy* drop-down and click on Select from Universes.

**5.** Click on the magnifying glass and locate an existing aggregate that you have assigned weights. These weights will automatically drive the Policy weights.

6. Next, locate the template you want to use.

7. Click *OK* to be taken to the Report Settings dialog Box.

W	Repor	t Settings										
e V	elect ' iews use	<b>Views</b> d within Report										
	Views	8 Display Dates	Asset C	lass Groupings		Policy Weights	Manag	ers Fee				
	•	View	С	olumn Display		Display Order		Manager Disp	lay	Decimal		
	<b>1</b>	Attribution	W	reights	-	Overall First	•	Name	-	2	•	
	2	Weights	A	ctual	-			Name	•	2	•	
											~	
												0
	Help									OK		Cancel

**8.** Click on the *View* tab to customize your output display. Here, customize your settings for the Attribution and Weights views.

**9.** Click on the *Display Dates* tab to set your date and frequency settings. Here, you can also select Ending Period Weights, Beginning Period Weights, or Average Weights to display in your output.

M Report Settings		×
Display Dates Displays date columns within Re	eport and calculation.	
9 Views Display Dates	Asset Class Groupings Policy Weights Managers Fee	
Dates		
Start Date	3 months ago 🔹 10/01/2009 📰 -	
End Date	Last Quarter End 🔽 12/31/2009	
Display Frequency	Single Display Frequency shows how often data is displayed for a view. Weekly Monthly Quarterly Semi-Annually	
Display Weights	<ul> <li>Ending Period Weights</li> <li>Beginning Period Weights</li> <li>Average Weights</li> </ul>	

10. Click on the Asset Class Groupings tab to set your groupings.



**11.** You can also add your own *Custom Sector* that you've created in Workspace. See Custom Sector chapter.

**12.** You can also manually assign the custom sector for the first time by clicking on *New Classification.* 

**13.** Click on the *Policy Weights* tab to input your weights where the default is equal-weighted. Here, you can also add Policy Weights dates.

Report	Settings				×	
Policy V This dialog	<b>Veights</b> is used to assign benchmark to groups for comparison (	and set policy weight for each benchmark.				
Views	Display Dates Asset Class Groupings	Policy Weights Managers Fee				
Add Po	licy Weights Dates 12/31/2008					
	Display Groups/Investments	Benchmark		Policy Weights		
				,		
<b>□</b> 1	▼ Total			100.00		
<b>2</b>	Diversified Emerging Mkts	MSCI EM USD	Q	9.09		
П 3	Large Growth	Russell 1000 Growth TR USD	Q	9.09	1	
<b>4</b>	Intermediate-Term Bond	BarCap US Agg Bond TR USD	Q	9.09		
<b>5</b>	World Bond	BarCap Gbl Agg Ex USD TR USD	Q	9.09	1	
<b>6</b>	Commodities Broad Basket	DJ UBS Commodity TR USD	9.09			
🗖 7	High Yield Bond	BarCap US Corporate High Yield TR USD	BarCap US Corporate High Yield TR USD 🛛 🔍			
<b>1</b> 8	Global Real Estate	FTSE EPRA/NAREIT DVIp REITS PR USD	Q	9.09	1	
П9	Large Blend	Russell 1000 Value TR USD	9.09	1		
🗖 10	Foreign Large Blend	MSCI World ex US USD	٩	9.09		
🗖 11	Small Value	Russell 2000 TR USD	Q	9.09		
🗖 12	Unclassified	S&P 500 TR	٩	9.09	1	
	<			]>		
Help			[	OK Car	ncel	

## 14. Click on the *Managers* tab.

16	Report	t Settings								×
Ma Th	<b>anage</b> nis dialog	; <b>rs</b> g is used to assign benchmark for investm	ents included and set m	ianager fee for	r each	. inv	estment.			
4	Views	Display Dates Asset Class Gr	oupings Policy W	leights Ma	14 anagel	rs	Fee			
Ð	🗹 Incl	iude Cash Proxy 3 Month T-Bi	11		2	2				
		Name	Benchmark				Manager Fee	Source of Fee		
	<b>1</b>	Diamond Hill Small Cap Equity	Russell 2000 Value Tr	R USD	-	٩	0.00	Custom		
	2	DWS RREEF Global Real Estate Secs I	MSCI World/Real Esta	te NR USD	-	٩	1.26	Annual Report Ne	t Expens 🔷	
	П 3	Hansberger International Core Equity	MSCI AC World Ex US	SA NR USD	-	٢	0.00	Custom		
	4	Harbor Capital Appreciation Instl	Russell 1000 Growth	TR USD	-	٩	0.69	Annual Report Ne	t Expens	
ļţ	5	Harris Assoc. Large Cap Value	Russell 1000 TR USD	J	-	٩	0.00	Custom		
ļţ	[] 6	Lazard Emerging Markets Equity Instl	MSCI EM NR USD		-	٢	1.17	Annual Report Ne	t Expens	
ļţ	[] 7	Loomis Sayles High Income A Load	ML US HY Master II TF	R USD	-	٩	1.15	Annual Report Ne	t Expens	
ļļ	. □ 8	PIMCO Commodity Real Ret Strat Instl	DJ UBS Commodity TF	RUSD	-	٩	0.74	Annual Report Ne	t Expens	
ļļ	Г 9	PIMCO Total Return Insti	BarCap US Govt/Crec	Jit 5-10 Yr TR	-	٩	0.45	Annual Report Ne	t Expens	
ļţ	10	T. Rowe Price International Bond Adv	Citi WGBI NonUSD US	۶D	-	٩	1.13	Annual Report Ne	t Expens	
	11	USTREAS T-Bill Auction Ave 3 Mon	S&P 500 TR		-	٩	0.00	Annual Report Ne	t Expens	
		1	Select Cash Pro	ху					E	k
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			Find By	Name	Y	•	Begins	s with Ocont	ains evectments	
							<b>T</b> 1000 -	e only surviving	Ivesunence	
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		<	Available records							
Ľ			Total records: No	records four	nd					
$\left[ \right]$	Help	7	inter to record pa							
			Jump to record nar	me:						

**15.** If you have Cash in your portfolio, you can check *Include Cash Proxy* and locate the proxy from the *Select Cash Proxy* dialog box.

**16.** Go to the *Manager Fee* and *Source of Fee* columns. If you have retail investments, then the annual report net expense ratio will be displayed. If you have a separate account or custom portfolio, then "Custom" will be displayed and you can alter the manager fees from 0.00 to another numeric value.

17. Go to the *Benchmark Column* if you want to alter the benchmark.

Views	s Display Dates Asset Class (	Froupings Policy Weights Manag	ers	Fee	
🖌 Incl	ude Cash Proxy 3 Month T-6	sill 🦉	2		
Γ	Name	Benchmark		Manager Fee	Source of Fee
<b>1</b>	Diamond Hill Small Cap Equity	Russell 2000 Value TR USD 📃 🗸		0.00	Custom
2	DWS RREEF Global Real Estate Secs I	Asset Class Policy Benchmark	R	1.26	Annual Report Net Expens 🗠
П 3	Hansberger International Core Equity	Analyst Assigned Benchmark Best Fit Index	R	0.00	Custom
4	Harbor Capital Appreciation Instl	ETF Proxy	2	0.69	Annual Report Net Expens
5	Harris Assoc. Large Cap Value	Manager Preferred Benchmark	2	0.00	Custom
6	Lazard Emerging Markets Equity Instl	Morningstar Index Proxy	2	1.17	Annual Report Net Expens
<b>7</b>	Loomis Sayles High Income A Load	MPT Benchmark	2	1.15	Annual Report Net Expens
8 🗆	PIMCO Commodity Real Ret Strat Insti	My Benchmark 1 My Benchmark 2	2	0.74	Annual Report Net Expens
<b>9</b>	PIMCO Total Return Instl	Prospectus Primary Benchmark	2	0.45	Annual Report Net Expens
<b>1</b> 0	T. Rowe Price International Bond Adv	Russell 2000 Value TR USD	2	1.13	Annual Report Net Expens
L 11	USTREAS T-Bill Auction Ave 3 Mon	S&P 500 TR 🗸	2	0.00	Annual Report Net Expens
					~

**18.** Click on the *Fee* tab where you have the ability to add multiple fees and customize fee names. For example, you can replace Consultant Fee with Wrap Fee.

Nays consultant fee within report.          Views       Display Dates       Asset Class Groupings       Policy Weights       Managers       Fee         + Add       X Delete		
Views Display Dates Asset Class Groupings Policy Weights Managers Fee  + Add X Delete  Display Name Annual Fee %  1 Consultant Fee 1.25  2 Wrap Fee 3.00		
+ Add x Delete       Display Name       Annual Fee %       1     Consultant Fee       1.25       2     Wrap Fee       3.00	18 Fas	
+ Add x Delete         Display Name       Annual Fee %         1       Consultant Fee       1.25         2       Wrap Fee       3.00		
Display Name     Annual Fee %       1     Consultant Fee       2     Wrap Fee       3.00		
1 Consultant Fee 1.25 2 Wrap Fee 3.00		
▼ 2 Wrap Fee 3.00		
Help A DV I C		

- 19. Click OK to close the Report Workflow window.
- 20. Click *Calculat*e to run the Total Attribution Report.

Mew Report - Performa	nce Attribution Window							×	
<u>F</u> ile <u>N</u> ew Favorites	Help Search for	In Securities 🔹 Go				🔤 Sei	nd us feedbar	ck	
Views	Attribution 20								
TH Attribution	E Settinger III Calculate	Funneta		_				-	
Weight	Settings * m Calculate	Export V Sort E Save							
in worght	🔍 Portfolio : Sample TPA	Inter Month Portfolios 🏼 🍳 Policy : S	ample Benchn	nark   🍳 C	urrency : US	Dollar			
			10/1/2009 - 12/31/2009						
	Name	Benchmark	Weights %		Gross Re	turn(%)	Net Retu		
	Level 1 2		Actual Pol	icy +/-	Portfolio	Benchmark +/	- Portfolio		
	▼ Large Cap	S&P 500 TR						^	
	Harbor Capital Appr	Russell 1000 Growth TR USD							
	Harris Assoc. Large	Russell 1000 Value TR USD							
	▼ Small/Mid Cap	Russell 2000 TR USD							
	Diamond Hill Small	Russell 2000 TR USD							
	▼ International Equity	MSCI EAFE NR USD							
	Hansberger Internat	MSCI World ex US USD							
		MSCI EM NR USD							
	Lazard Emerging Ma	MSCI EM USD							
	▼ Intl Fixed Inc	Citi WGBI NonUSD USD							
	T. Rowe Price Intern	BarCap Gbl Agg Ex USD TR USD							
	▼ Inv Grade Fixed Inc	BarCap US Agg Bond TR USD							
	PIMCO Total Return	BarCap US Agg Bond TR USD							
	▼ High Yield Fixed Inc	ML US HY Master II TR USD							
	Loomis Sayles High	BarCap US Corporate High Yield TR							
	▼ Real Estate Sec	MSCI World/Real Estate NR USD							
	DWS RREEF Global	FTSE EPRA/NAREIT Dvlp REITs PR U							
	▼ Commodities	DJ UBS Commodity TR USD							
	PIMCO Commodity	DJ UBS Commodity TR USD							
	▼ Cash	USTREAS T-Bill Auction Ave 3 Mon							
	USTREAS T-Bill Auct	S&P 500 TR							
	Total								
	▼ Fee								
	Consultant Fee								
	Net Return							~	
			<				>	ĩ	

21. You will be asked to save the report. Once complete, click OK.

🚺 Save	
Save	
Name	Sample 3.8 Sample Sample 1 Sample 2
	2) OK Cancel

**22.** Once the calculation is complete, you will be asked to view the report.

Click *OK* to view the output.

Morningstar Direct	×
Calculation is complete for report "Sample".Do you want to view it nov	v?
Cancel	

### 23. You've now successfully established a new Total Portfolio Attribution report.

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liews	Attribution												
E Attribution	Settings- Calculate Export - Port - Save												
🖽 Weight	Q. Portfolio : Sample TPA Inter Month Portfolios Q. Policy : Sample Benchmark Q. Currency : US Dollar												
	. Crossee - compto - restinge												
	23)												
	Name	Benchmark	Net Return(%) Attribution Effect(				Effect(%)	ct(%)					
	Level 1 2		Portfolio	Bench mark	+/-	Asset Class	Manager Selection	Manager Benchmark	Manager Fee	Active Return			
		04.0 500 70	0.70	1.00	0.05	Weighting	0.00	Mistit	(0.04)	0.40			
		SAP SUUTR	2.78	1.93	0.85	(0.06)	0.08	0.10	(0.01)	0.12			
	Harbor Capital Appreciatio	Russell 1000 Growth TR USD	3.11	3.09	0.02		0.01	0.12	(0.01)	0.12			
	Harris Assoc. Large Cap V	Russell 1000 Value TR USD	2,45	1.77	(0.00)		(0.57)	(0.02)	0.00	0.05			
	• Small/Mid Cap	Russell 2000 TR USD	5.22	0.05	(2.03)	1.12	(0.57)	0.00	0.00	0.55			
	Diamond Hill Small Cap Eq	NUSSEI 2000 TK USD	5.22	1.44	(2.03)	0.00	(0.57)	0.00	0.00	(0.57			
	International Equity	MSCI Warld av US USD	1.02	1.50	0.42	0.00	0.04	0.01	0.00	0.00			
	= Emerging Equity	MSCI EN NR USD	2.96	2.05	(0.09)	0.07	0.04	(0.01)	(0.01)	0.05			
	+ Emerging Equity	MSCI EN USD	3.86	3.81	0.04	0.07	0.01	(0.01)	(0.01)	(0.0			
	Totl Fixed Ioc	Citi WGBI NapUSD USD	(4.62)	(5.75)	1.13	0.32	0.01	(0.01)	(0.01)	0.38			
	T Rowe Price Internationa	BarCan Gbl Agg Ex USD TR USD	(4.62)	(5.19)	0.57	0.02	0.03	0.03	(0.00)	0.06			
	T Inu Grade Fixed Inc	BarCap US Ang Bond TR USD	(0.86)	(1.56)	0.37	0.23	0.03	0.00	(0.01)	0.3			
	PIMCO Total Return Insti	BarCap US Agg Bond TR USD	(0.86)	(1.56)	0.70	0120	0.11	0.00	(0.01)	0.10			
	Thick Vield Fixed Inc	MILLIS HY Master II TR LISD	3.08	3.13	(0.05)	0.12	(0.01)	0.01	(0.01)	0.12			
	Loomis Savles High Incom	BarCap US Corporate High Yield TR USD	3.08	3.28	(0.20)		(0.01)	0.01	(0.01)	(0.01			
	▼ Real Estate Sec	MSCI World/Real Estate NR USD	2.71	3.17	(0,46)	0.08	(0.06)	0.04	(0.01)	0.06			
	DWS BREEF Global Beal Es.	FTSE EPRA/NAREIT Dvip REITs PR USD	2.71	4.00	(1.29)		(0.06)	0.04	(0.01)	(0.02			
	▼ Commodities	DJ UBS Commodity TR USD	0.65	1.98	(1.33)	(0.07)	(0.07)	0.00	(0.00)	(0.14			
	PIMCO Commodity Real R	DJ UBS Commodity TR USD	0.65	1.98	(1.33)		(0.07)	0.00	(0.00)	(0.07			
	▼ Cash	USTREAS T-Bill Auction Ave 3 Mon	0.01	0.01	0.00	0.00	(0.09)	0.09	0.00	0.00			
	USTREAS T-Bill Auction Av	S&P 500 TR	0.01	1.93	(1.93)		(0.09)	0.09	0.00	0.00			
	Total		2.14	0.60	1.54	1.83	(0.52)	0.27	(0.04)	1.54			
	▼ Fee		(0.11)	0.00									
	Consultant Fee		(0.11)	0.00									
	Net Return		2.04	0.60									

## **Manually Assign Policy Weights**

**1.** In addition to automatically assigning weights to your policy, you can also manually assign weights to your policy. Go to the Performance Attribution folder and click on *Reports* under the Total Portfolio/Interactive folder.

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Home	Reports	0		
Local Databases	Action	New 🖞 Export 🖪 PDF 🔂 Batch Mar	nagement	🙀 General Settings
Global Databases		Name		Portfolio
Performance Attribution				
▼■ Equity/Interactive	<b>□</b> 1	▼ Morningstar Report Templates		
Reports	<b>□</b> 2	Broad Asset Class (US)		
🔟 Templates	П 3	Broad Category Group & Morningstar	Categ	
Archived Reports	□ 4	Global Category Group		
Equity/PDF	<b>□</b> 5	Morningstar Institutional Category		
▼ Total Portfolio/Interactive	<b>6</b>	▼ My Reports		
	<b>7</b>	3.7 Demo		3.7 Demo_Aggr
I emplates				
Custom Security Classifications				

2. Click New to be taken to the Report Workflow dialog.

M Report Wor	kflow	X
Select report (	parameters.	
Portfolio	Sample Total Portfolio Basic	
Policy	Manually Assign	<b>∽</b> 4
		٩
Template	Sample 1	<u>6</u> 🖌 💠
Currency	US Dollar	*
Неір		6 DK Cancel

- 3. Go to the *Portfolio* and retrieve your aggregate that populates the managers.
- 4. Go to the Policy drop-down and click on Manually Assign.
- 5. Locate the template you want to use.
- 6. Click *OK* to be taken to the Report Setting dialog Box.

7. As explained in the previous section, you can customize your Views, Display Dates, Asset Class Groupings, Manager Benchmarks and related information, as well as Fees. To customize your policy weights by manually assigning the weights, go to the *Policy Weights* tab.

Г	Display Groups/Investments	Benchmark		Policy Weights	l
Π1	▼ Total			100.00	,
2	Diversified Emerging Mkts	MSCI EM USD	2	9.09	ŀ
□ 3	Large Growth	Russell 1000 Growth TR USD	2	9.09	1
□ 4	Intermediate-Term Bond	BarCap US Agg Bond TR USD	2	9.09	1
□ 5	World Bond	BarCap Gbl Agg Ex USD TR USD	2	9.09	1
6	Commodities Broad Basket	DJ UBS Commodity TR USD	2	9.09	1
<b>7</b>	High Yield Bond	BarCap US Corporate High Yield TR USD	2	9.09	1
□ 8	Global Real Estate	FTSE EPRA/NAREIT Dvlp REITs PR USD	2	9.09	1
П9	Large Blend	Russell 1000 Value TR USD	2	9.09	1
10	Foreign Large Blend	MSCI World ex US USD	2	9.09	1
<b>1</b> 1	Small Value	Russell 2000 TR USD	2	9.09	1
12	Unclassified	S&P 500 TR	2	9.09	1

You can also customize your benchmark for each group. 8. Begin to start typing the *Policy Weights*. To complete, the total must equal 100%

**9.** Click *OK* and follow steps 20 to 23 to complete the Total Portfolio attribution.