

MEETING MATERIALS

HOWARD COUNTY RETIREMENT PLANS

April 29, 2021

Margaret Belmondo, CIMA®, Partner

Will Forde, CFA, CAIA, Principal

Francesca LoVerde, Senior Consulting Analyst



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

TABLE OF CONTENTS

	<u>Page</u>
March Flash Report	3
Correlation & Stochastic Analysis	12
High Yield Search Book	19

MARCH FLASH REPORT

NEPC, LLC

CALENDAR YEAR INDEX PERFORMANCE

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Mar	YTD
S&P 500	2.1%	16.0%	32.4%	13.7%	1.4%	12.0%	21.8%	-4.4%	31.5%	18.4%	4.4%	6.2%
Russell 1000	1.5%	16.4%	33.1%	13.2%	0.9%	12.1%	21.7%	-4.8%	31.4%	21.0%	3.8%	5.9%
Russell 2000	-4.2%	16.3%	38.8%	4.9%	-4.4%	21.3%	14.6%	-11.0%	25.5%	20.0%	1.0%	12.7%
Russell 2500	-2.5%	17.9%	36.8%	7.1%	-2.9%	17.6%	16.8%	-10.0%	27.8%	20.0%	1.6%	10.9%
MSCI EAFE	-12.1%	17.3%	22.8%	-4.9%	-0.8%	1.0%	25.0%	-13.8%	22.0%	7.8%	2.3%	3.5%
MSCI EM	-18.4%	18.2%	-2.6%	-2.2%	-14.9%	11.2%	37.3%	-14.6%	18.4%	18.3%	-1.5%	2.3%
MSCI ACWI	-7.3%	16.1%	22.8%	4.2%	-2.4%	7.9%	24.0%	-9.4%	26.6%	16.3%	2.7%	4.6%
Private Equity	9.5%	12.6%	22.3%	14.6%	10.4%	10.3%	21.0%	13.1%	17.2%	13.0%*	-	-
BC TIPS	13.6%	7.0%	-8.6%	3.6%	-1.4%	4.7%	3.0%	-1.3%	8.4%	11.0%	-0.2%	-1.5%
BC Municipal	10.7%	6.8%	-2.6%	9.1%	3.3%	0.2%	5.4%	1.3%	7.5%	5.2%	0.6%	-0.4%
BC Muni High Yield	9.2%	18.1%	-5.5%	13.8%	1.8%	3.0%	9.7%	4.8%	10.7%	4.9%	1.1%	2.1%
BC US Corporate HY	5.0%	15.8%	7.4%	2.5%	-4.5%	17.1%	7.5%	-2.1%	14.3%	7.1%	0.1%	0.8%
BC US Agg Bond	7.8%	4.2%	-2.0%	6.0%	0.5%	2.6%	3.5%	0.0%	8.7%	7.5%	-1.2%	-3.4%
BC Global Agg	5.6%	4.3%	-2.6%	0.6%	-3.2%	2.1%	7.4%	-1.2%	6.8%	9.2%	-1.9%	-4.5%
BC Long Treasuries	29.9%	3.6%	-12.7%	25.1%	-1.2%	1.3%	8.5%	-1.8%	14.8%	17.7%	-5.0%	-13.5%
BC US Long Credit	17.1%	12.7%	-6.6%	16.4%	-4.6%	10.2%	12.2%	-6.8%	23.4%	13.3%	-2.7%	-8.4%
BC US STRIPS 20+ Yr	58.5%	3.0%	-21.0%	46.4%	-3.7%	1.4%	13.7%	-4.1%	20.9%	24.0%	-6.9%	-18.5%
JPM GBI -EM Global Div	-1.8%	16.8%	-9.0%	-5.7%	-14.9%	9.9%	15.2%	-6.2%	13.5%	2.7%	-3.1%	-6.7%
JPM EMBI Glob Div	7.3%	17.4%	-5.3%	7.4%	1.2%	10.2%	10.3%	-4.3%	15.0%	5.3%	-1.0%	-4.5%
CS Hedge Fund	-2.5%	7.7%	9.7%	4.1%	-0.7%	1.2%	7.1%	-3.2%	9.3%	6.4%	-	2.1%
BBG Commodity	-13.3%	-1.1%	-9.5%	-17.0%	-24.7%	11.8%	1.7%	-11.2%	7.7%	-3.1%	-2.1%	6.9%
Alerian MLP	13.9%	4.8%	27.6%	4.8%	-32.6%	18.3%	-6.5%	-12.4%	6.6%	-28.7%	6.9%	22.0%
FTSE NAREIT Equity REITs	8.3%	18.1%	2.5%	30.1%	3.2%	8.5%	5.2%	-4.6%	26.0%	-8.0%	4.6%	8.9%

Source: FactSet, Barclays, Thomson One

*Private Equity return represents calendar year pooled IRR and is subject to a one quarter lag



TRAILING ANNUAL INDEX PERFORMANCE

Equity							
	Mar-21	Q1	YTD	1 YR	3 YR	5 YR	10 YR
MSCI ACWI	2.7%	4.6%	4.6%	54.6%	12.1%	13.2%	9.1%
S&P 500	4.4%	6.2%	6.2%	56.4%	16.8%	16.3%	13.9%
Russell 1000	3.8%	5.9%	5.9%	60.6%	17.3%	16.7%	14.0%
Russell 2000	1.0%	12.7%	12.7%	94.8%	14.8%	16.4%	11.7%
Russell 2500	1.6%	10.9%	10.9%	89.4%	15.3%	15.9%	12.2%
MSCI EAFE	2.3%	3.5%	3.5%	44.6%	6.0%	8.8%	5.5%
MSCI EM	-1.5%	2.3%	2.3%	58.4%	6.5%	12.1%	3.7%
Credit							
	Mar-21	Q1	YTD	1 YR	3 YR	5 YR	10 YR
BC Global Agg	-1.9%	-4.5%	-4.5%	4.7%	2.8%	2.7%	2.2%
BC US Agg	-1.2%	-3.4%	-3.4%	0.7%	4.7%	3.1%	3.4%
BC Credit	-1.6%	-4.5%	-4.5%	7.9%	5.9%	4.7%	4.8%
BC US HY	0.1%	0.8%	0.8%	23.7%	6.8%	8.1%	6.5%
BC Muni	0.6%	-0.4%	-0.4%	5.5%	4.9%	3.5%	4.5%
BC Muni HY	1.1%	2.1%	2.1%	15.0%	7.3%	6.4%	7.1%
BC TIPS	-0.2%	-1.5%	-1.5%	7.5%	5.7%	3.9%	3.4%
BC 20+ STRIPS	-6.9%	-18.5%	-18.5%	-22.2%	7.1%	3.9%	9.8%
BC Long Treasuries	-5.0%	-13.5%	-13.5%	-15.8%	5.9%	3.1%	6.3%
BC Long Credit	-2.7%	-8.4%	-8.4%	8.9%	7.5%	6.7%	7.2%
BC Govt/Credit 1-3 Yr	0.0%	0.0%	0.0%	1.6%	3.0%	2.0%	1.6%
JPM EMBI Glob Div	-1.0%	-4.5%	-4.5%	16.0%	4.0%	5.1%	5.6%
JPM GBI-EM Glob Div	-3.1%	-6.7%	-6.7%	13.0%	-0.8%	3.1%	0.5%
Real Assets							
	Mar-21	Q1	YTD	1 YR	3 YR	5 YR	10 YR
BBG Commodity	-2.1%	6.9%	6.9%	35.0%	-0.2%	2.3%	-6.3%
Alerian Midstream Index	7.8%	20.9%	20.9%	74.5%	4.2%	4.8%	-
FTSE NAREIT Equity REITs	4.6%	8.9%	8.9%	37.8%	9.5%	5.3%	8.6%

Source: S&P, MSCI, Russell, Barclays, JPM, Alerian, FTSE, FactSet



Howard County Retirement Plans

TOTAL FUND PERFORMANCE SUMMARY (GROSS)

	Market Value (\$)	% of Portfolio	Policy %	Ending March 31, 2021									
				1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date	
Total Fund Composite	1,321,944,102	100.0	100.0	0.9	1.8	17.5	27.9	9.5	10.3	8.1	7.7	Apr-97	
<i>Policy Index</i>				0.7	1.6	15.7	25.8	8.6	9.1	7.5	7.6	Apr-97	
<i>Allocation Index</i>				0.8	1.6	17.5	29.3	--	--	--	--	Apr-97	
Total US Equity Composite	368,136,467	27.8	23.0	3.4	7.0	33.9	64.9	16.0	17.2	14.0	9.4	Jul-97	
<i>Russell 3000</i>				3.6	6.3	33.2	62.5	17.1	16.6	13.8	8.8	Jul-97	
<i>US Equity Allocation Index</i>				3.0	6.0	33.6	64.1	16.8	16.6	13.4	--	Jul-97	
Total International Equity	229,322,030	17.3	17.0	1.4	3.5	32.1	57.8	9.1	11.8	5.9	5.5	Jul-97	
<i>MSCI ACWI ex USA</i>				1.3	3.5	28.7	49.4	6.5	9.8	4.9	5.1	Jul-97	
Total Fixed Income Composite	372,563,338	28.2	30.0	-1.1	-2.8	2.0	8.3	4.8	4.6	4.5	5.4	Jul-97	
<i>Fixed Income Policy Index</i>				-1.2	-3.4	-2.1	0.7	4.7	3.1	3.4	5.1	Jul-97	
Total Real Assets Composite	44,638,613	3.4	7.0	0.0	0.0	6.0	-6.9	1.2	5.5	6.1	6.3	Jul-03	
<i>NCREIF Property Index 1 Qtr. Lag</i>				0.0	0.0	0.9	1.6	4.9	5.9	9.0	8.3	Jul-03	
Cash Composite	12,171,090	0.9		0.0	0.0	0.0	0.1	1.1	0.8	0.4	1.3	Dec-03	
<i>91 Day T-Bills</i>				0.0	0.0	0.1	0.1	1.4	1.1	0.6	1.2	Dec-03	
Hedge Fund Composite	135,793,418	10.3	8.0	0.5	2.3	10.9	17.1	5.9	5.6	5.2	5.2	Jan-11	
<i>HFRI FOF: Conservative Index</i>				0.6	3.6	12.6	18.9	5.0	4.7	3.2	3.2	Jan-11	
Private Equity Composite	156,819,146	11.9	10.0	0.0	0.0	18.0	11.5	16.2	16.1	14.3	13.2	Jul-08	
<i>CJA US All PE (1 Qtr Lag)</i>				0.0	0.0	20.8	8.6	11.0	12.7	12.6	10.5	Jul-08	
Private Debt	2,500,000	0.2	5.0	0.0	0.0	0.0	--	--	--	--	0.0	Jun-20	
<i>S&P/LSTA Leveraged Loan TR</i>				0.0	1.8	10.0	20.7	4.1	5.3	4.3	10.0	Jun-20	

Fiscal year end 6/30.

All history prior to 3/1/2019 was provided by AndCo.



March 31, 2021

Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Ending March 31, 2021											
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Fund Composite	1,321,944,102	100.0	100.0	0.9	1.8	17.5	27.9	9.5	10.3	8.1	7.7	Apr-97
Policy Index				0.7	1.6	15.7	25.8	8.6	9.1	7.5	7.6	Apr-97
Allocation Index				0.8	1.6	17.5	29.3	--	--	--	--	Apr-97
Total Equity Composite	597,458,497	45.2	40.0	2.6	5.6	33.2	61.8	13.0	14.8	10.6	8.1	Apr-00
MSCI ACWI IMI				2.6	5.1	31.5	57.6	11.9	13.2	9.2	5.5	Apr-00
Total US Equity Composite	368,136,467	27.8	23.0	3.4	7.0	33.9	64.9	16.0	17.2	14.0	9.4	Jul-97
Russell 3000				3.6	6.3	33.2	62.5	17.1	16.6	13.8	8.8	Jul-97
US Equity Allocation Index				3.0	6.0	33.6	64.1	16.8	16.6	13.4	--	Jul-97
Large Cap Composite	307,908,695	23.3	19.0	4.2	7.4	33.3	62.8	15.9	16.6	13.9	9.6	Apr-01
Russell 1000				3.8	5.9	31.8	60.6	17.3	16.7	14.0	8.8	Apr-01
LSV Asset Management SMA	87,679,804	6.6		7.2	17.2	47.0	71.6	9.5	12.6	12.1	10.1	May-00
Russell 1000 Value				5.9	11.3	36.6	56.1	11.0	11.7	11.0	7.4	May-00
Westfield Capital Management SMA	113,357,322	8.6		2.0	2.6	28.2	62.8	22.0	21.2	15.5	17.9	Jul-10
Russell 1000 Growth				1.7	0.9	27.3	62.7	22.8	21.0	16.6	18.6	Jul-10
BlackRock Equity Index Non-Lendable Fund	106,871,570	8.1		4.4	6.2	29.7	56.4	--	--	--	21.4	Dec-19
S&P 500				4.4	6.2	29.7	56.4	16.8	16.3	13.9	21.4	Dec-19
Small/Mid Cap Composite	60,227,771	4.6	4.0	-0.4	4.9	37.1	75.6	16.7	19.3	14.5	12.9	Apr-93
Russell 2500				1.6	10.9	49.6	89.4	15.3	15.9	12.2	11.0	Apr-93
William Blair SMA	21,523,252	1.6		-1.4	4.4	37.6	74.4	19.9	21.4	16.2	13.8	Jun-06
Russell 2500 Growth				-3.3	2.5	41.1	87.5	20.0	19.9	14.2	11.7	Jun-06
ICM Small Company - ICSCX	19,148,592	1.4		6.6	21.4	61.5	93.3	12.2	15.3	12.1	12.3	Apr-93
Russell 2000 Value				5.2	21.2	65.7	97.1	11.6	13.6	10.1	10.4	Apr-93
Brown Capital Small Company Strategy SMA	19,555,927	1.5		-5.5	-7.0	18.9	62.3	19.3	22.8	--	19.4	Aug-11
Russell 2000 Growth				-3.1	4.9	45.7	90.2	17.2	18.6	13.0	14.0	Aug-11



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL (GROSS)

						Ending March 31, 2021						
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total International Equity	229,322,030	17.3	17.0	1.4	3.5	32.1	57.8	9.1	11.8	5.9	5.5	Jul-97
MSCI ACWI ex USA				1.3	3.5	28.7	49.4	6.5	9.8	4.9	5.1	Jul-97
International Developed Markets Composite	143,591,350	10.9	12.0	2.2	4.0	29.9	53.5	9.3	10.4	6.9	4.7	Mar-08
MSCI EAFE				2.3	3.5	25.8	44.6	6.0	8.8	5.5	3.4	Mar-08
Mondrian International Equity Fund, L.P.	73,839,080	5.6		3.9	7.3	28.4	40.0	3.8	6.9	5.3	2.4	Dec-07
MSCI EAFE				2.3	3.5	25.8	44.6	6.0	8.8	5.5	2.5	Dec-07
Baillie Gifford EAFE Pure K - BGPX	69,752,270	5.3		0.4	1.1	30.8	64.3	--	--	--	14.3	May-18
MSCI EAFE				2.3	3.5	25.8	44.6	6.0	8.8	5.5	5.4	May-18
International Emerging Markets Composite	85,730,680	6.5	5.0	0.3	2.5	36.0	65.2	8.8	14.4	3.8	7.3	Feb-06
MSCI Emerging Markets				-1.5	2.3	34.1	58.4	6.5	12.1	3.7	5.9	Feb-06
GQG Partners Emerging Markets Equity Fund	43,794,478	3.3		-3.3	-1.0	34.9	65.7	--	--	--	23.7	Dec-18
MSCI Emerging Markets				-1.5	2.3	34.1	58.4	6.5	12.1	3.7	15.3	Dec-18
Arga Emerging Markets Equity Fund	41,936,202	3.2		4.3	6.3	--	--	--	--	--	6.3	Jan-21
MSCI Emerging Markets Value NR USD				0.5	4.1	34.0	52.5	2.6	8.4	1.0	4.1	Jan-21
Total Fixed Income Composite	372,563,338	28.2	30.0	-1.1	-2.8	2.0	8.3	4.8	4.6	4.5	5.4	Jul-97
BBgBarc US Aggregate TR				-1.2	-3.4	-2.1	0.7	4.7	3.1	3.4	5.0	Jul-97
Core Fixed Income Composite	277,996,638	21.0	22.0	-1.0	-2.5	1.1	6.1	--	--	--	7.0	Mar-19
BBgBarc US Aggregate TR				-1.2	-3.4	-2.1	0.7	4.7	3.1	3.4	5.5	Mar-19
Dodge & Cox SMA	124,290,802	9.4		-0.7	-2.5	1.7	8.1	6.0	5.0	4.7	4.8	May-10
BBgBarc US Aggregate TR				-1.2	-3.4	-2.1	0.7	4.7	3.1	3.4	3.5	May-10
PIMCO Total Return	128,559,177	9.7		-1.3	-2.7	0.2	3.8	5.4	4.2	4.0	4.2	May-10
BBgBarc US Aggregate TR				-1.2	-3.4	-2.1	0.7	4.7	3.1	3.4	3.5	May-10
State Street Global Advisors TIPS	25,146,660	1.9		-0.2	-1.5	3.1	7.5	5.7	3.8	3.4	3.8	Nov-09
BBgBarc US TIPS TR				-0.2	-1.5	3.2	7.5	5.7	3.9	3.4	3.8	Nov-09
Emerging Markets Debt Composite	45,659,487	3.5	4.0	-3.1	-7.7	4.9	16.6	--	--	--	2.7	Mar-19
JP Morgan GBI EM Global Diversified TR USD				-3.1	-6.7	2.9	13.0	-0.8	3.1	0.5	2.0	Mar-19
Colchester Local Markets Debt Fund	45,659,487	3.5		-3.1	-7.7	4.9	16.6	0.1	4.8	--	6.5	Oct-15
JP Morgan GBI EM Global Diversified TR USD				-3.1	-6.7	2.9	13.0	-0.8	3.1	0.5	4.8	Oct-15
Absolute Return Fixed Income	48,907,213	3.7	4.0	0.1	0.6	4.8	14.3	--	--	--	2.6	Mar-20
3-Month Libor Total Return USD				0.0	0.0	0.2	0.3	1.6	1.5	0.9	0.4	Mar-20
Payden Absolute Return Bond Fund PYAIX	48,907,213	3.7		0.1	0.6	4.8	14.3	--	--	--	2.6	Mar-20
3-Month Libor Total Return USD				0.0	0.0	0.2	0.3	1.6	1.5	0.9	0.4	Mar-20



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL (GROSS)

	Ending March 31, 2021											
	Market Value (\$)	% of Portfolio	Policy %	1 Mo (%)	3 Mo (%)	Fiscal YTD (%)	1 Yr (%)	3 Yrs (%)	5 Yrs (%)	10 Yrs (%)	Inception (%)	Inception Date
Total Real Assets Composite	44,638,613	3.4	7.0	0.0	0.0	6.0	-6.9	1.2	5.5	6.1	6.3	Jul-03
<i>NCREIF Property Index 1 Qtr. Lag</i>				<i>0.0</i>	<i>0.0</i>	<i>0.9</i>	<i>1.6</i>	<i>4.9</i>	<i>5.9</i>	<i>9.0</i>	<i>8.3</i>	<i>Jul-03</i>
Cash Composite	12,171,090	0.9		0.0	0.0	0.0	0.1	1.1	0.8	0.4	1.3	Dec-03
<i>91 Day T-Bills</i>				<i>0.0</i>	<i>0.0</i>	<i>0.1</i>	<i>0.1</i>	<i>1.4</i>	<i>1.1</i>	<i>0.6</i>	<i>1.2</i>	<i>Dec-03</i>
Hedge Fund Composite	135,793,418	10.3	8.0	0.5	2.3	10.9	17.1	5.9	5.6	5.2	5.2	Jan-11
<i>HFRI FOF: Conservative Index</i>				<i>0.6</i>	<i>3.6</i>	<i>12.6</i>	<i>18.9</i>	<i>5.0</i>	<i>4.7</i>	<i>3.2</i>	<i>3.2</i>	<i>Jan-11</i>
Magnitude International Class A Eligible	67,878,660	5.1		0.6	2.0	10.4	15.7	5.6	5.0	5.0	5.1	Jan-11
<i>HFRI FOF: Conservative Index</i>				<i>0.6</i>	<i>3.6</i>	<i>12.6</i>	<i>18.9</i>	<i>5.0</i>	<i>4.7</i>	<i>3.2</i>	<i>3.2</i>	<i>Jan-11</i>
Blackstone Partners Offshore Fund LTD	67,914,757	5.1		0.4	2.7	11.5	18.4	6.0	6.2	5.2	5.2	Mar-11
<i>HFRI FOF: Conservative Index</i>				<i>0.6</i>	<i>3.6</i>	<i>12.6</i>	<i>18.9</i>	<i>5.0</i>	<i>4.7</i>	<i>3.2</i>	<i>3.1</i>	<i>Mar-11</i>
Private Equity Composite	156,819,146	11.9	10.0	0.0	0.0	18.0	11.5	16.2	16.1	14.3	13.2	Jul-08
<i>CJA US All PE (1 Qtr Lag)</i>				<i>0.0</i>	<i>0.0</i>	<i>20.8</i>	<i>8.6</i>	<i>11.0</i>	<i>12.7</i>	<i>12.6</i>	<i>10.5</i>	<i>Jul-08</i>
Private Debt	2,500,000	0.2	5.0	0.0	0.0	0.0	--	--	--	--	0.0	Jun-20
<i>S&P/LSTA Leveraged Loan</i>				<i>0.0</i>	<i>1.8</i>	<i>10.0</i>	<i>20.7</i>	<i>4.1</i>	<i>5.3</i>	<i>4.3</i>	<i>10.0</i>	<i>Jun-20</i>

Magnitude International Class A Eligible is preliminary as of 3/31/2021.



Howard County Retirement Plans

TOTAL FUND PERFORMANCE DETAIL FOOTNOTES

Performance is preliminary for 3/31/2021.

Fiscal year ends 6/30.

Policy index consists of: 19% Russell 1000 / 4% Russell 2500 / 12% MSCI EAFE / 5% MSCI Emerging Markets / 20% BBgBarc US Aggregate TR / 2% BBgBarc US TIPS TR / 4% 3-Month Libor Total Return USD / 4% JP Morgan GBI EM Global Diversified TR USD / 5% S&P/LSTA Leveraged Loan TR / 7.0% NCREIF Property Index 1 Qtr. Lag / 8% HFRI FOF: Conservative Index / 10% Private Equity Composite.

Allocation index consists of: Weighted index of underlying managers to their respective benchmark.

Fixed Income Policy index consists of: 100% BBgBarc US Aggregate TR.

Real Estate, Real Assets, Private Debt and Private Equity investments are valued as of 09/30/2020 and adjusted for capital calls and distributions through 12/31/2020.

All history prior to 3/1/2019 was provided by AndCo.

DISCLAIMERS & DISCLOSURES

- Past performance is no guarantee of future results.
- Returns for pooled funds, e.g. mutual funds and collective investment trusts, are collected from third parties; they are not generally calculated by NEPC. Returns for separate accounts, with some exceptions, are calculated by NEPC. Returns are reported net of manager fees unless otherwise noted.
- A “since inception” return, if reported, begins with the first full month after funding, although actual inception dates (e.g. the middle of a month) and the timing of cash flows are taken into account in Composite return calculations.
- NEPC’s preferred data source is the plan’s custodian bank or record-keeper. If data cannot be obtained from one of the preferred data sources, data provided by investment managers may be used. Information on market indices and security characteristics is received from additional providers. While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within. In addition, some index returns displayed in this report or used in calculation of a policy index, allocation index or other custom benchmark may be preliminary and subject to change.
- All investments carry some level of risk. Diversification and other asset allocation techniques are not guaranteed to ensure profit or protect against losses.
- The opinions presented herein represent the good faith views of NEPC as of the date of this presentation and are subject to change at any time. Neither fund performance nor universe rankings contained in this report should be considered a recommendation by NEPC.
- This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.



CORRELATION & STOCHASTIC ANLYSIS

NEPC, LLC

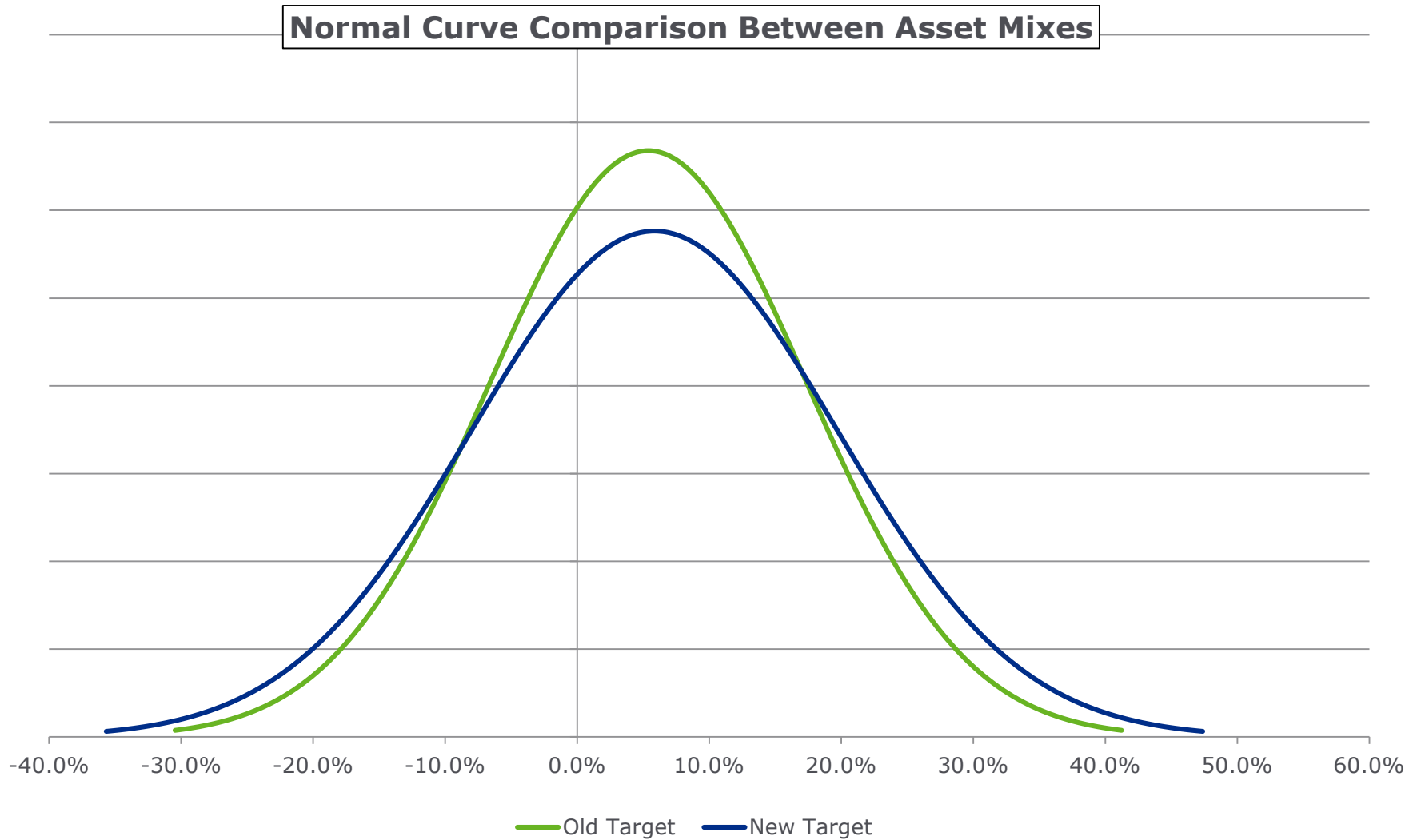
HOWARD COUNTY POLICY TARGETS

Asset Class	Old Target	New Target	Δ from 2020 (+/-)
Large Cap Equity	19%	22%	+3.0%
Small/Mid Cap Equity	4%	5.5%	+1.5%
Int'l Equities	12%	11%	-1.0%
Emerging Markets Equity	5%	6.5%	+1.5%
Private Equity	10%	13%	+3.0%
Total Equities	50%	58%	+8.0%
TIPS	2%	2%	--
Core Bonds (constrained to Treasuries)	20%	9%	-11.0%
Emerging Market Debt (Local)	4%	4%	--
High Yield Bonds	0%	4%	+4.0%
Absolute Return Fixed Income	4%	4%	--
Private Debt	5%	5%	--
Total Fixed Income	35%	28%	-7.0%
Core/Non-Core Real Estate ¹	5%	4%	-1.0%
Private Real Asset	2%	2%	--
Total Real Assets	7%	6%	-1.0%
Hedge Funds	8%	8%	--
Total Multi Asset	8%	8%	--
Total Portfolio	100%	100%	--
Expected Return (10 years)	5.3%	5.9%	+0.6%
Expected Return (30 years)	6.4%	6.9%	+0.5%
Standard Deviation	11.9%	13.8%	+1.9%

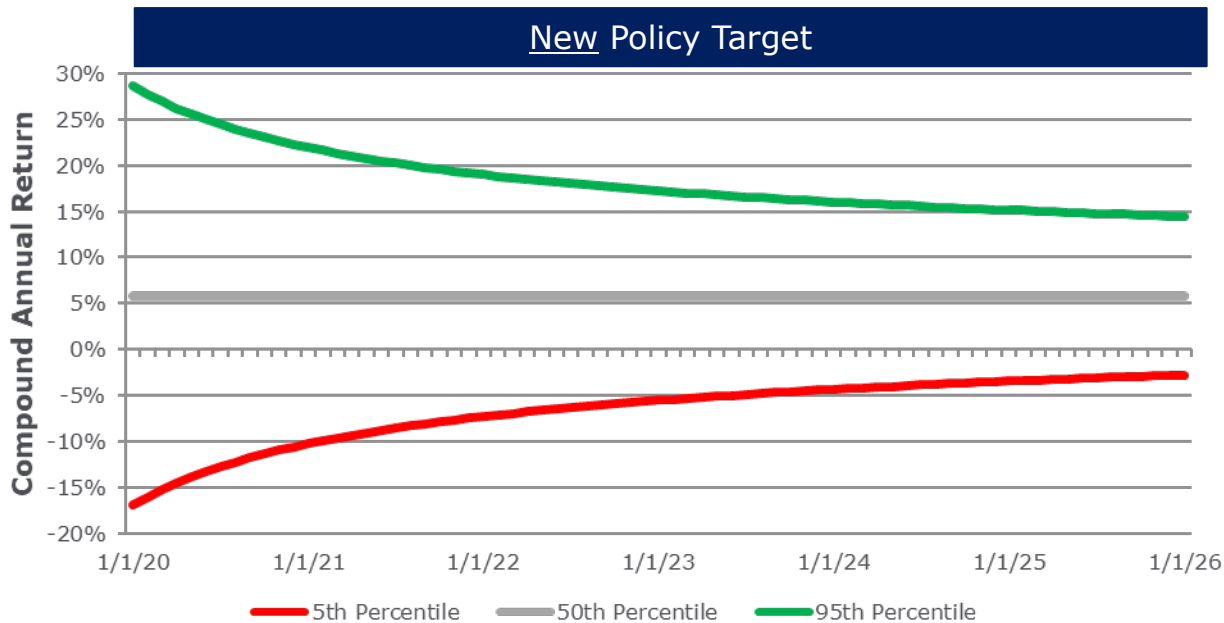
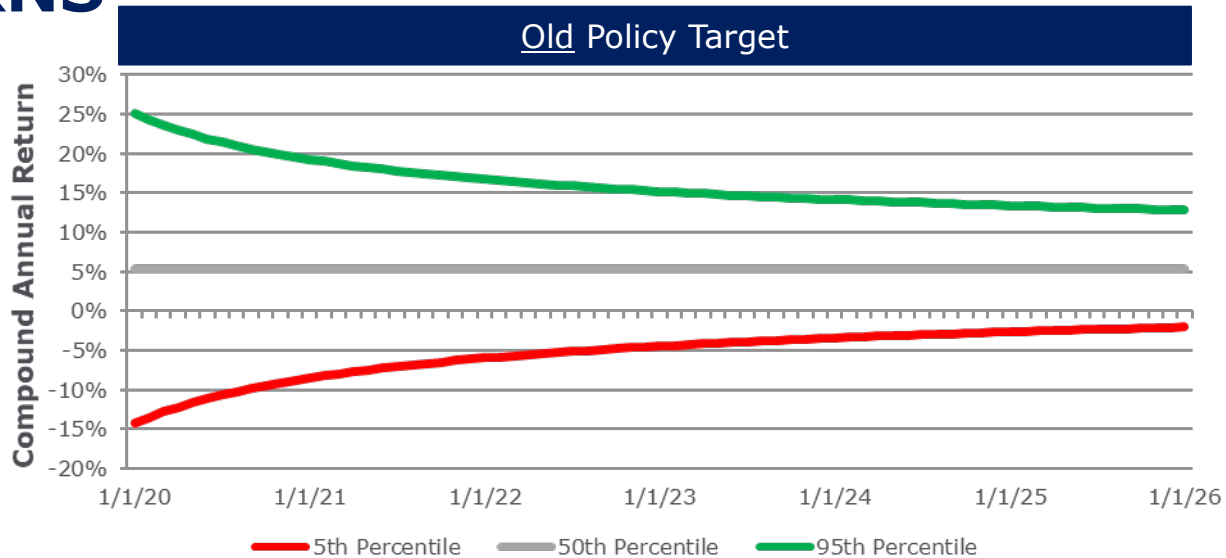


(1) Real Estate was modeled using a 50/50 split between NEPC's assumptions for Core Real Estate and Non-Core Real Estate.

STOCHASTIC ANALYSIS: NORMAL CURVE

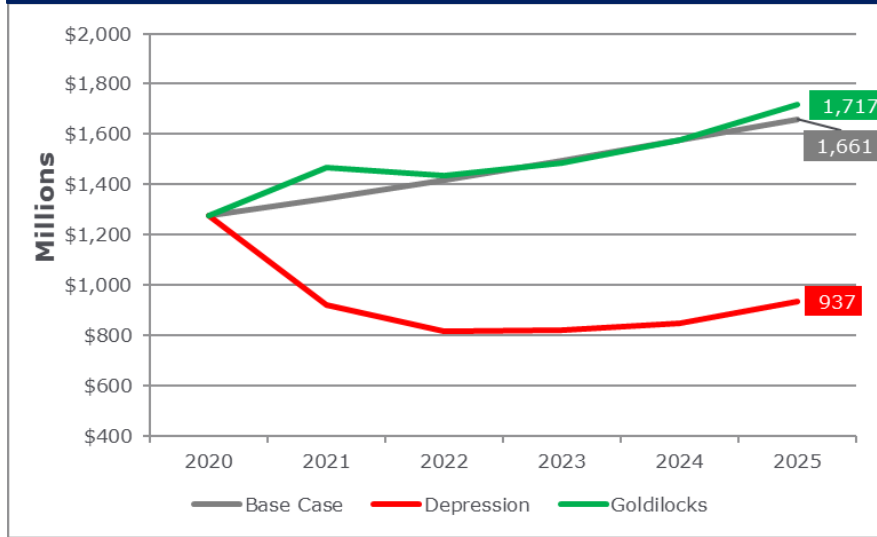


STOCHASTIC ANALYSIS: COMPOUND ANNUAL RETURNS

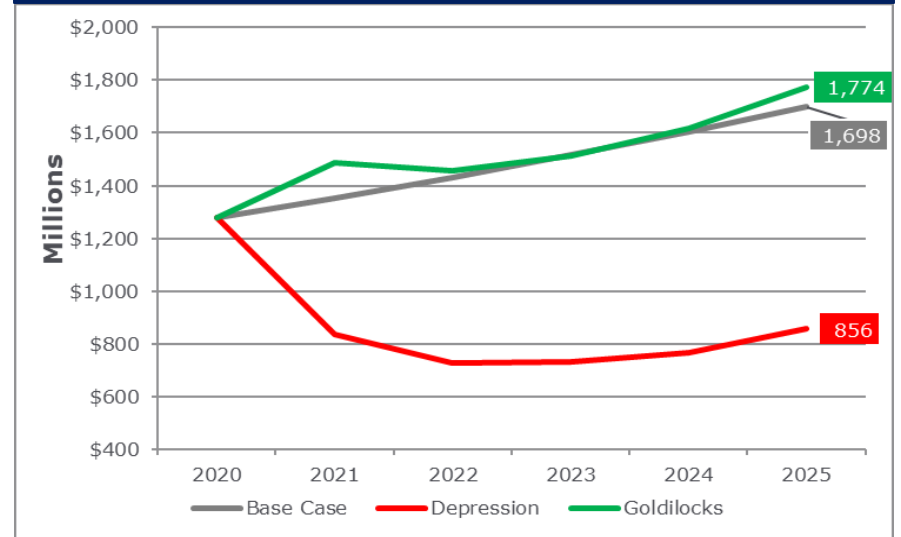


STOCHASTIC & SCENARIO ANALYSIS: RANGE OF OUTCOMES

Old Policy Target



New Policy Target



RISK BUDGET

NEPC, LLC

CORRELATIONS & RISK BUDGET



HIGH YIELD MANAGER SEARCH

HOWARD COUNTY, MARYLAND

April 2021



BOSTON | ATLANTA | CHARLOTTE | CHICAGO | DETROIT | LAS VEGAS | PORTLAND | SAN FRANCISCO

INTRODUCTION

NEPC, LLC

INTRODUCTION TO ASSET CLASS

High Yield bond managers invest in **below investment grade debt instruments issued by domestic corporations**. Because of the perceived greater **risk of default**, these bonds pay a **higher yield** than investment grade corporate debt. In an issuer's capital structure high yield debt is **senior to equity** and hybrid securities, but subordinate to bank loans. In order to add alpha or reduce volatility some managers may invest a small piece of the portfolio in bank loans, which are floating rate securities that typically carry a below investment grade rating. Other non-benchmark sectors may include convertible bonds, preferred equity, and investment grade corporates.

Manager performance is run against the **Bloomberg Barclays US Corporate High Yield Index ("Index")**. The Index covers the universe of **US dollar-denominated, fixed rate, non-investment grade debt**. Alpha in the space is dependent on manager approach – i.e. high quality focus (BB/B-rated only), full rating spectrum, illiquid opportunities – but **expect strategies to outperform the Index by approximately 0-3% on a net basis**. Those products that have a high quality tilt aim to capture most of the market return in up-markets, but protect principal substantially during challenging credit environments.

RESEARCH PROCESS

NEPC's investment manager research process identifies a Focused Placement List of strategies that we expect will provide superior investment performance over time. Our four step process used for identifying our Focused Placement List includes:

1. Universe Screening – Minimum inclusion criteria and screening are used to focus our analysis;
2. Quantitative Scoring – Proprietary quantitative analysis measuring the consistency and quality of alpha-only, net of fees returns;
3. Qualitative Research – Rigorous qualitative analysis of a strategy's key characteristics, focusing on identification of a clear and differentiating investment thesis to develop forward-looking conviction in future performance; and
4. Peer Review – Confirmation through careful peer review of each strategy by senior investment professionals to challenge each investment thesis and raise critical business issues.

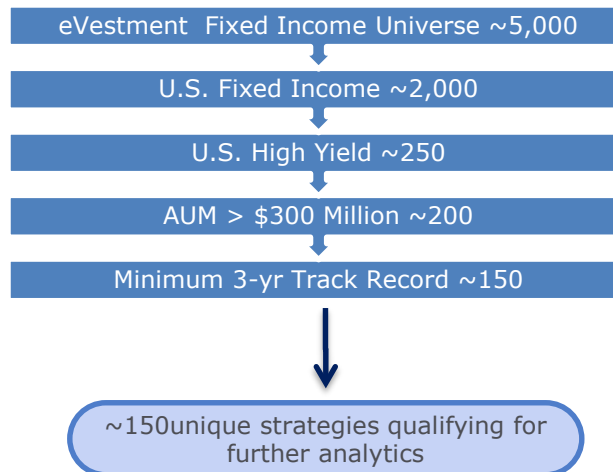
We believe that this exhaustive process leads to identification of strategies with a reasonable probability of delivering consistent, high quality investment results. From time to time, we may include products specifically requested by clients.



RESEARCH PROCESS

1. Universe Screening

- The construction of the Focused Placement List begins with initial universe screening to identify candidates that meet acceptable criteria for further analysis.



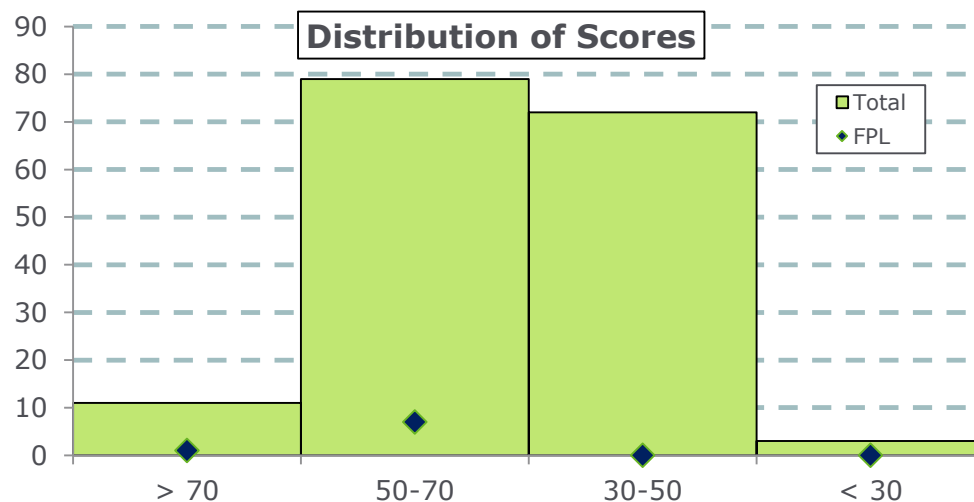
The chart above is a stylized example of a universe screen.

RESEARCH PROCESS

2. Quantitative Scoring

- Strategies are scored using our proprietary Performance Analytics Statistical Software (PASS) on metrics that we believe identify investment processes expected to consistently outperform the benchmark over the long term. All analysis is based on excess manager returns, net of all fees. For U.S. High Yield, strategies are scored 0-100. Scoring is weighted 70% quantitative and 30% qualitative, including the following factors:

- Rolling 3 Year Excess Return > 0%
- Rolling 3 Year Excess Return > 3%
- Average Rolling 3 Year Information Ratio
- Information Ratio * Length of Track Record
- Contrarian Indicator
- Upside Market Capture
- Downside Market Capture
- Qualitative NEPC Opinion – Firm & Team Stability, Quality of Investment Thesis



RESEARCH PROCESS

3. Qualitative Research

- Deep, qualitative research is conducted on a focused set of strategies identified through scoring and supplemented by our research teams' knowledge of strategies that appear compelling for further research.
- Our research efforts are focused on developing a deep understanding of each strategy's people, philosophy, & process, synthesizing those aspects into our interpretation of each strategy's investment thesis – the identification of a particular set of market inefficiencies and the conviction in a portfolio management team's ability to exploit those inefficiencies over the long-term, thereby, adding value over the benchmark.
- By focusing on investment thesis, our research remains forward-looking, supporting this investment view with critical knowledge of each organization, investment team, research support, investment process, performance expectations, and fees/available investment vehicles to identify strategies that we believe will provide quality excess returns above the relevant benchmark.

4. Peer Review

- The research process culminates in exhaustive peer review. The Fixed Income Advisory Group provides feedback and insight to the research team prior to vetting strategies in front of senior research and consulting professionals on NEPC's Due Diligence Committee. The research team presents each Focused Placement List candidate to the Due Diligence Committee. The committee challenges both the soundness of the investment thesis (NEPC's articulation of why the strategy is expected to outperform over the long-term) and all relevant factors that might effect the long-term stability of the strategy, including business factors at the firm level. Candidates approved by the Due Diligence Committee are placed on the Focused Placement List and included in searches conducted for that asset class.

SEARCH CANDIDATES

The following is a list of managers under consideration for this search. The table below summarizes the products proposed for each manager.

Firm	Strategy	Comments
High Yield		
Artisan Partners Limited Partnership	Artisan High Income	Composite Track Record Shown
Barings LLC	U.S. High Yield Bonds	Composite Track Record Shown
Mesirow Financial Investment Management, Inc.	Mesirow Financial High Yield Fixed Income	<i>Non-FPL Strategy Included at Client Request</i> Composite Track Record Shown
Wellington Management Company LLP	Wellington Core High Yield Bond	Composite Track Record Shown

DISCLOSURE

Data Disclosure:

- Investment fees can have a significant effect on total returns. The results profiled herein reflect the deduction of management fees and other expenses, except where specifically noted.

Footnotes:

Firm Ownership

- Artisan: Artisan is 4% owned by Artisan Investment Corporation, 6% owned by initial investors, and 3% owned by former employee partners.

Fees & Expenses

- Artisan : Investors may incur a 2% redemption fee if they redeem or exchange shares of Artisan High Income Fund that they have held for 90 days or less.
- Wellington: Operating expenses are capped at 4 bps.



FIRM AND PRODUCT SUMMARY

NEPC, LLC

FIRM AND PRODUCT SUMMARY

Firm/Product	Firm/Team Comments	Investment Style/Strategy	Performance Expectations	Portfolio Positioning	Other Comments
High Yield					
Artisan - Artisan High Income	Bryan Krug manages the High Income strategy and leads Artisan's Credit Committee.	Artisan's High Income strategy invest in issuers, primarily within the non-investment grade universe with high-quality business models that have compelling risk-adjusted return characteristics.	Expect good performance in most environments. Downside protection should be expected through the use of senior secured floating rate bank loans when appropriate.	The portfolio will consist of high conviction best ideas across primarily high yield bonds and senior floating rate bank loans.	Bryan Krug was the portfolio manager of Ivy High Income Fund at Waddell & Reed from February 2006 through November 2013 before joining Artisan.
Barings - High Yield	Martin Horne is the Head of the Global High Yield Investments group Barings in London. David Mihalick heads up the US High Yield effort in Charlotte, NC.	This high yield strategy will avoid emerging markets and focus on U.S. and Western European issuers with a fundamental credit underwriting approach.	Expect core US high yield exposure over a market cycle with issue selection driving performance , while targeting 150bps of excess return.	This strategy has a history in focusing high yield portfolios on developed market below investment grade corporate credit while avoiding EMD. High conviction portfolio of 125-175 issuers .	This is a legacy Babson Capital strategy re-branded under the Barings name in 2016. Barings LLC is a wholly-owned subsidiary of Massachusetts Mutual Life Insurance Company.
Mesirow - HY	HQ in Chicago. The HY strategy is led by 3 portfolio managers which includes the CIO, Robert Sydow.	Heavily weighted toward small cap issues , which on average have lower ratings from the rating agencies.	Strategy will do well in expansionary periods during rapid periods of growth and spread tightening. The strategy may lag when high quality bonds rally over low quality.	Portfolio has historically maintained a yield premium relative to the benchmark , largely reflecting a bias for small cap bonds.	Offering a founders fee of 40bps for the CIT vehicle.
Wellington - High Yield Bond	Wellington's strategy is overseen by Chris Jones. There is a dedicated team of credit analysts in addition to Wellington's global industry analysts.	Strategy will incorporate top down positioning based on the credit cycle with bottom-up fundamental research .	Strategy should do well in most market conditions but is likely to lag during periods of rapid spread tightening due to a higher quality bias.	Core US High Yield exposure should be expected.	

NEPC INVESTMENT THESIS

Firm/Product	NEPC Investment Thesis
High Yield	
Artisan - Artisan High Income	Artisan's High Income strategy invest in issuers, primarily within the non-investment grade universe, with high-quality business models that have compelling risk-adjusted return characteristics. The value-add in this strategy is that lead Portfolio manager Bryan Krug is unconstrained in the way he can invest in senior floating rate bank loans when the risk-return characteristics of a company's loan is more attractive than their high yield debt issue. Investors can expect to be invested primarily in high yield bonds , and have opportunistic exposure to loans in some environments. The team believes that market inefficiencies exist at different points along the credit cycle, therefore, allocating a portion of the portfolio away from high yield in favor of loans can be beneficial in some market environments throughout the credit cycle.
Barings - High Yield	The Barings U.S. High Yield strategy draws upon the firm's well resourced investment platform to construct portfolios focusing on domestic U.S. high yield markets. The portfolio is expected to take high conviction positions in high yield bonds, while avoiding emerging markets. The value-add that this strategy brings to investing in the high yield market is the team's experience in high yield investing, and their time-tested process of successfully targeting high current income, capturing capital appreciation in below investment grade bonds, and the ability to avoid defaults .
Mesirow - HY	NEPC Research and the NEPC Due Diligence committee has not vetted and approved an investment thesis for this manager. This manager is not currently included on NEPC's Focused Placement List.
Wellington - High Yield Bond	Wellington's high yield strategy uses research and inputs from both the corporate high yield team and the firm's global industry analysts . Wellington aims to select amongst the best opportunities building an efficient portfolio of credit investments.

FIRM COMPARISON SUMMARY

Firm Name	Location	Year Firm Founded	Total Assets Under Mgmt (\$MM)	% Employee Owned	% Parent Owned	Parent Company Name	% Publicly Held	% Other Ownership
High Yield								
Artisan Partners Limited Partnership	Milwaukee, Wisconsin	1994	157,776	12	0	NA	74	13
Barings LLC	Charlotte, North Carolina	1762	345,163	0	100	Massachusetts Mutual Life Insurance Company	0	0
Mesirow Financial Investment Management, Inc.	Chicago, Illinois	1974	147,858	95	0	NA	0	5
Wellington Management Company LLP	Boston, Massachusetts	1928	1,291,419	100	0	NA	0	0

Firm Name	Registered Investment Advisor	GIPS Compliant	Past or Pending Litigation	Firm uses Placement Agent
High Yield				
Artisan Partners Limited Partnership	Yes	Yes	Yes	No
Barings LLC	Yes	Yes	Yes	No
Mesirow Financial Investment Management, Inc.	Yes	Yes	No	Yes
Wellington Management Company LLP	Yes	Yes	Yes	Yes



PRODUCT COMPARISON

Firm/Product	Inception Date	AUM (\$MM)	# of Portfolio Managers	# of Research Analysts	# of Traders
High Yield					
Artisan - Artisan High Income	2014	6,241	1	4	1
Barings - High Yield	2000	5,767	11	28	4
Mesirow - HY	1999	1,339	3	3	0
Wellington - High Yield Bond	1997	2,823	5	56	40

Firm/Product	Vehicle Proposed	Liquidity In	Liquidity Out	Client Fee for \$50.00 mm	NEPC Negotiated/ Reduced Fee (bps)	Reported Fee (bps)
High Yield						
Artisan - Artisan High Income	Commingled Fund Mutual Fund	Monthly Daily	Monthly Daily	340,000.00	---	68
				360,000.00	---	72
Barings - High Yield	Commingled Fund	Daily	Daily	187,500.00	38	45
Mesirow - HY	Separate Account Commingled Fund	Daily Daily	Daily Daily	225,000.00	45	58
				200,000.00	40	55
Wellington - High Yield Bond	Commingled Fund	Daily	Daily	200,000.00	---	40



FIXED INCOME COMPARISON

Firm/Product	Duration Emphasis	Weighted Average Coupon (%)	Yield to Maturity (%)	Average Maturity (Years)	Duration (Years)	Average Quality	Minimum Quality
High Yield							
Artisan - Artisan High Income	Intermediate	6.6	5.5	5.56	3.31	B	Distressed Debt
Barings - High Yield	Intermediate	6.5	5.9	6.54	3.52	B	NA*
Mesirow - HY	Intermediate	7.2	7.9	5.17	2.80	B	CCC
Wellington - High Yield Bond	Intermediate	5.4	4.4	4.03	5.14	NA**	NA*

* No Minimum Quality Issue

** Not Provided

Firm/Product	# of Issues	Current Cash (%)	Annual Turnover (%)	Yield to Worst (%)
High Yield				
Artisan - Artisan High Income	192	3.0	71.8	5.3
Barings - High Yield	288	5.7	64.1	4.9
Mesirow - HY	396	1.0	47.7	7.6
Wellington - High Yield Bond	175	2.6	42.0	3.6

CURRENT QUALITY ALLOCATIONS

Firm/Product	AAA/Aaa (%)	AA/Aa (%)	A (%)	BBB/Baa (%)	BB/Ba (%)	B (%)	CCC/Caa and Below (%)	Other (%)
High Yield								
Artisan - Artisan High Income	0.0	0.0	0.0	18.3	11.6	42.9	24.3	2.9
Barings - High Yield	0.0	0.0	0.0	1.4	38.4	35.5	22.0	2.7
Mesirow - HY	0.0	0.0	0.0	0.0	7.3	58.0	30.0	5.0
Wellington - High Yield Bond	0.0	0.0	0.0	3.0	43.0	38.0	11.0	5.0

CURRENT DURATION

Firm/Product	Duration <1 Yr (%)	Duration 1-3 Yrs (%)	Duration 3-5 Yrs (%)	Duration 5-7 Yrs (%)	Duration 7-10 Yrs (%)	Duration 10-20 Yrs (%)	Duration >20 Yrs (%)
High Yield							
Artisan - Artisan High Income	14.3	37.7	31.1	4.4	8.3	4.2	0.0
Barings - High Yield	19.7	29.4	30.0	10.9	4.8	5.3	0.0
Mesirow - HY	13.1	47.0	30.6	5.9	0.0	3.3	0.0
Wellington - High Yield Bond	15.0	35.0	28.0	15.0	4.0	3.0	0.0

FIXED INCOME SECTOR ALLOCATIONS US

Firm/Product	Government (%)	Government-Related (%)	Municipal/Tax-Exempt (%)	Municipals Taxable (%)	Bank Loan/Leveraged Loan (%)	Convertibles (%)	Investment Grade Corporate (%)	High Yield Corporate (%)	Preferred Stock (%)	Securitized (%)	Other (%)
High Yield											
Artisan - Artisan High Income	0.0	0.0	0.0	0.0	25.6	0.1	13.0	52.7	0.0	0.0	8.6
Barings - High Yield	0.0	0.0	0.0	0.0	0.0	0.0	1.4	88.1	0.0	0.0	10.5
Mesirow - HY	0.0	0.0	0.0	0.0	0.0	0.0	0.0	98.1	0.0	0.0	1.9
Wellington - High Yield Bond	0.0	0.0	0.0	0.0	1.0	3.0	1.0	78.0	0.0	0.0	17.0



PERFORMANCE

NEPC, LLC

INTRODUCTION TO PERFORMANCE ANALYSIS

The following performance charts show the historical record for the strategies under consideration. To manage client portfolios, each manager has a range of offerings (separate accounts, commingled funds or mutual funds) that allow all types of clients access to the strategy at reasonable prices.

Trailing Period Returns and Calendar Year Returns:

These pages highlight a manager's performance for quarter, year to date, 1, 3, 5, 7 & 10 year periods as well as calendar year returns.

Performance Summary:

These pages highlight a manager's excess performance over various periods. All managers are also shown from the inception of the shortest record referred to as LCD or Least Common Denominator.

Return Histogram:

These charts display the frequency of a manager's monthly excess performance data.

Rolling One Year and Three Year Excess Returns:

These charts demonstrate the manager's demonstrated relative performance versus the benchmark over time. Using each manager's one year return and subtracting the one year benchmark return shows how each manager has performed relative to the relevant benchmark. The same method is used for the three year charts.

Rolling One Year and Three Year Excess Return Versus Benchmark:

These charts demonstrate the manager's demonstrated relative performance behavior over up and down equity markets. The charts are displayed in order of benchmark performance along the X-Axis rather than chronological order. By looking at the Y-Coordinate you can determine whether or not the manager added or detracted value versus the benchmark over that one year period. Each dot represents the one year excess return versus the relevant benchmark. The same method is used for the three year charts.

Risk/Return Performance Charts:

These charts show the risk and return of the candidates and indices for 3, 5, 7 & 10 year periods.



TRAILING PERIOD RETURNS - (NET OF FEES)

	Qtr	YTD	1 Year	3 Year	5 Year	7 Year	10 Year
High Yield							
Artisan - Artisan High Income	7.8%	10.4%	10.4%	7.7%	9.4%	NA	NA
Barings - High Yield	7.5%	5.4%	5.4%	5.1%	7.6%	5.6%	7.3%
Mesirow - HY	9.1%	8.4%	8.4%	6.2%	8.3%	6.0%	6.8%
Wellington - High Yield Bond	6.4%	7.4%	7.4%	6.4%	8.1%	5.6%	6.5%

Actual Return

Bloomberg Barclays US Corporate High Yield	6.5%	7.1%	7.1%	6.2%	8.6%	5.7%	6.8%
---	------	------	------	------	------	------	------



CALENDAR YEAR RETURNS - (NET OF FEES)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
High Yield										
Artisan - Artisan High Income	10.4%	14.5%	-1.3%	9.3%	15.1%	1.5%	NA	NA	NA	NA
Barings - High Yield	5.4%	13.7%	-3.1%	8.2%	15.0%	-0.2%	1.8%	11.2%	17.1%	6.4%
Mesirow - HY	8.4%	12.4%	-1.6%	8.3%	14.6%	-1.5%	2.5%	8.7%	14.0%	3.8%
Wellington - High Yield Bond	7.4%	15.3%	-2.6%	8.1%	13.0%	-3.4%	3.1%	6.4%	14.4%	5.0%

Actual Index Return

Bloomberg Barclays US Corporate High Yield	7.1%	14.3%	-2.1%	7.5%	17.1%	-4.5%	2.5%	7.4%	15.8%	5.0%
---	------	-------	-------	------	-------	-------	------	------	-------	------



CALENDAR YEAR EXCESS RETURNS - (NET OF FEES)

	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
High Yield										
Artisan - Artisan High Income	3.3%	0.1%	0.8%	1.8%	-2.0%	5.9%	NA	NA	NA	NA
Barings - High Yield	-1.7%	-0.7%	-1.1%	0.7%	-2.1%	4.2%	-0.7%	3.7%	1.3%	1.4%
Mesirow - HY	1.3%	-1.9%	0.5%	0.8%	-2.6%	2.9%	0.0%	1.2%	-1.8%	-1.1%
Wellington - High Yield Bond	0.3%	1.0%	-0.6%	0.6%	-4.1%	1.0%	0.6%	-1.0%	-1.4%	0.1%
Actual Index Return										
Bloomberg Barclays US Corporate High Yield	7.1%	14.3%	-2.1%	7.5%	17.1%	-4.5%	2.5%	7.4%	15.8%	5.0%

Manager Excess Return: > 3%, between 0% and 3%, between -0% and -3%, < -3%



EXCESS RETURNS PERFORMANCE SUMMARY - (NET OF FEES)

	Primary Benchmark	# of Months (Track Record)	% Positive (Mo.)	High (Mo.)	Low (Mo.)	Average (Mo.)	% > 0.5%	Rolling 1 Yr. Rtr.		Rolling 3 Yr. Rtr.	
								> 0%	> 3%	> 0%	> 3%
Artisan - Artisan High Income	Bloomberg Barclays US Corporate High Yield	81	67%	1.4%	(1.8%)	0.2%	26%	76%	23%	100%	0%
Barings - High Yield	Bloomberg Barclays US Corporate High Yield	240	55%	4.9%	(6.7%)	0.0%	12%	61%	15%	64%	4%
Mesirow - HY	Bloomberg Barclays US Corporate High Yield	240	53%	6.1%	(9.0%)	0.1%	29%	60%	28%	63%	23%
Wellington - High Yield Bond	Bloomberg Barclays US Corporate High Yield	240	45%	3.3%	(4.8%)	0.0%	9%	40%	5%	31%	2%



EXCESS RETURNS PERFORMANCE SUMMARY - (NET OF FEES)

	# of Months (Track Record)	Excess Return					Tracking Error				Information Ratio				Beta vs. Primary Benchmark
		1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	
Artisan - Artisan High Income	81	3.3%	1.4%	0.9%	NA	NA	2.1%	1.9%	NA	NA	0.66	0.45	NA	NA	0.99
Barings - High Yield	240	(1.7%)	(1.1%)	(1.0%)	(0.1%)	0.5%	1.6%	1.5%	1.6%	1.5%	(0.70)	(0.62)	(0.07)	0.36	0.76
Mesirow - HY	240	1.3%	0.0%	(0.3%)	0.2%	0.0%	5.5%	4.3%	3.8%	3.3%	0.00	(0.08)	0.06	0.00	0.69
Wellington - High Yield Bond	240	0.3%	0.2%	(0.5%)	(0.1%)	(0.3%)	0.7%	1.2%	1.1%	1.0%	0.26	(0.45)	(0.11)	(0.30)	0.89



EXCESS RETURNS PERFORMANCE SUMMARY - (NET OF FEES) (LCD)

	Primary Benchmark	# of Months (Track Record)	% Positive (Mo.)	High (Mo.)	Low (Mo.)	Average (Mo.)	% > 0.5%	Rolling 1 Yr. Rtr.		Rolling 3 Yr. Rtr.	
								> 0%	> 3%	> 0%	> 3%
Artisan - Artisan High Income	Bloomberg Barclays US Corporate High Yield	81	67%	1.4%	(1.8%)	0.2%	26%	76%	23%	100%	0%
Barings - High Yield	Bloomberg Barclays US Corporate High Yield	81	52%	1.0%	(2.4%)	0.0%	6%	37%	4%	39%	0%
Mesirow - HY	Bloomberg Barclays US Corporate High Yield	81	52%	3.3%	(5.4%)	0.0%	19%	50%	3%	50%	0%
Wellington - High Yield Bond	Bloomberg Barclays US Corporate High Yield	81	49%	0.9%	(1.5%)	0.0%	4%	60%	0%	35%	0%



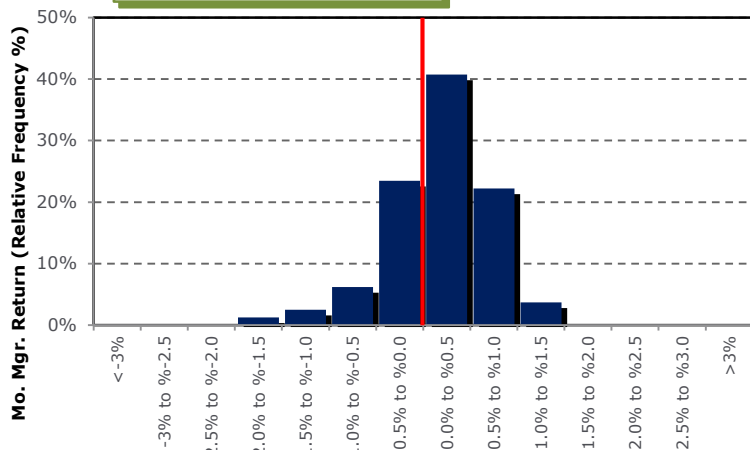
EXCESS RETURNS PERFORMANCE SUMMARY - (NET OF FEES) (LCD)

	# of Months (Track Record)	Excess Return					Tracking Error				Information Ratio				Beta vs. Primary Benchmark
		1 Yr.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	3 Yrs.	5 Yrs.	7 Yrs.	10 Yrs.	
Artisan - Artisan High Income	81	3.3%	1.4%	0.9%	NA	NA	2.1%	1.9%	NA	NA	0.66	0.45	NA	NA	0.99
Barings - High Yield	81	(1.7%)	(1.1%)	(1.0%)	NA	NA	1.6%	1.5%	NA	NA	(0.70)	(0.62)	NA	NA	0.93
Mesirow - HY	81	1.3%	0.0%	(0.3%)	NA	NA	5.5%	4.3%	NA	NA	0.00	(0.08)	NA	NA	1.07
Wellington - High Yield Bond	81	0.3%	0.2%	(0.5%)	NA	NA	0.7%	1.2%	NA	NA	0.26	(0.45)	NA	NA	0.98



EXCESS MONTHLY RETURNS HISTOGRAM - (NET OF FEES)

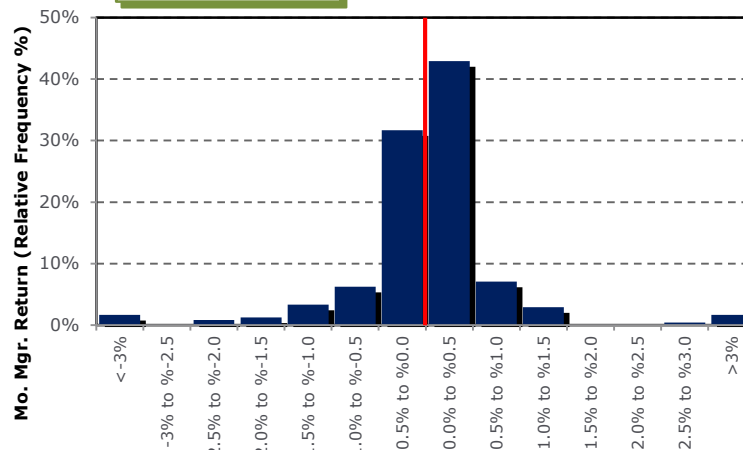
Artisan - Artisan High Income



N=81

Monthly Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

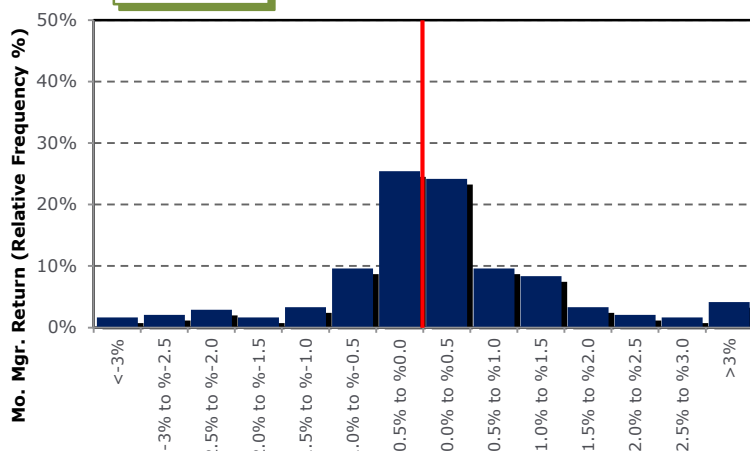
Barings - High Yield



N=240

Monthly Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

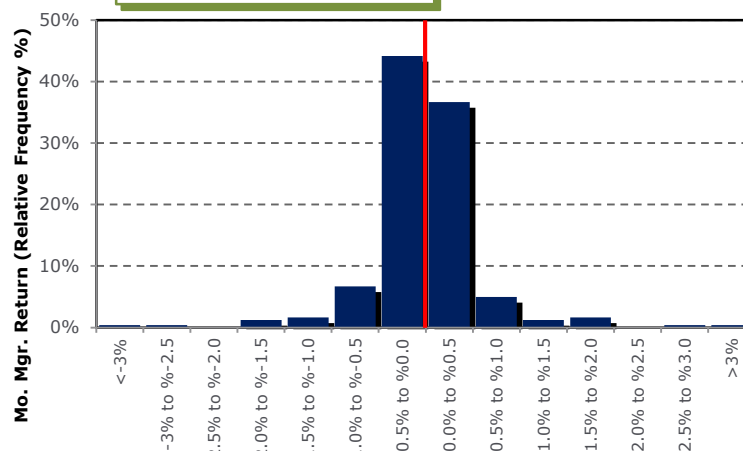
Mesirow - HY



N=240

Monthly Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Wellington - High Yield Bond



N=240

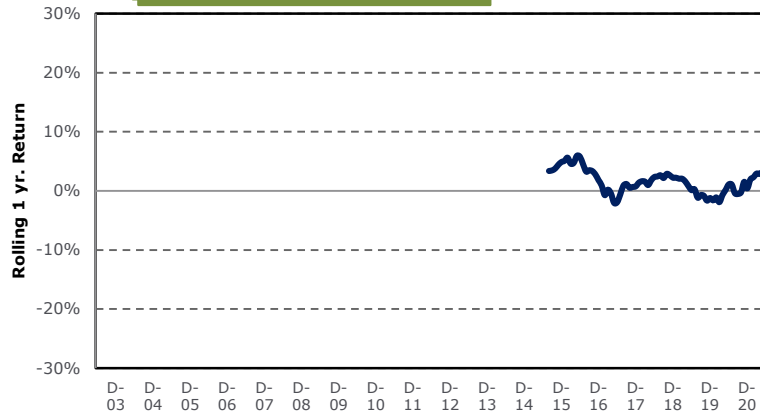
Monthly Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

High Yield



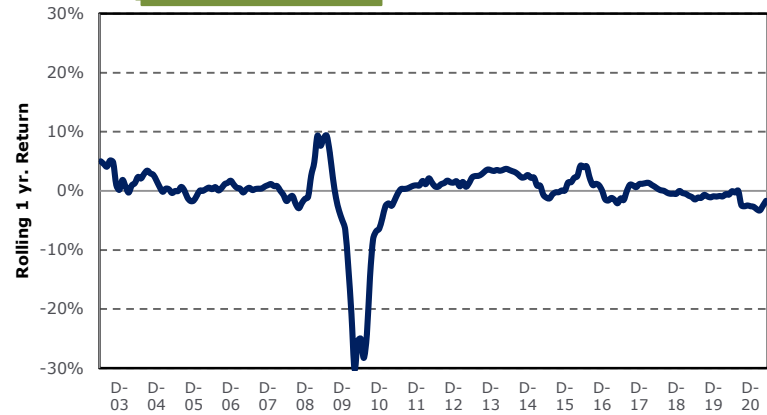
ROLLING 1 YEAR EXCESS RETURNS - (NET OF FEES)

Artisan - Artisan High Income



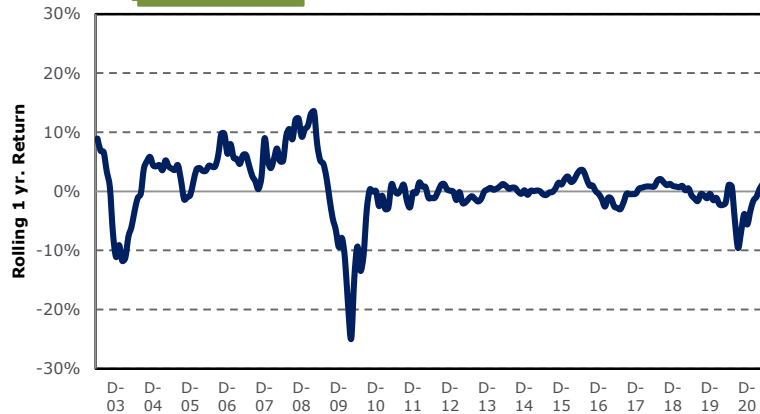
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Barings - High Yield



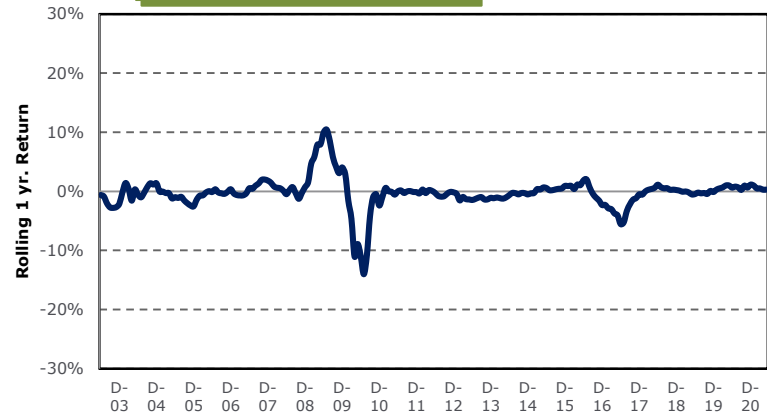
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Mesirow - HY




Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Wellington - High Yield Bond



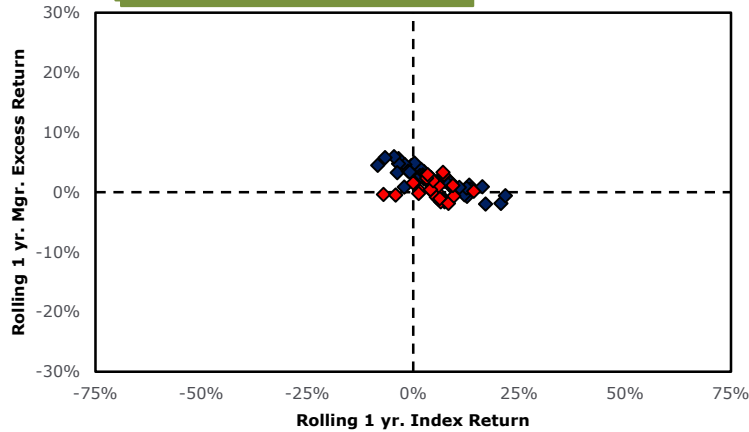
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

 High Yield



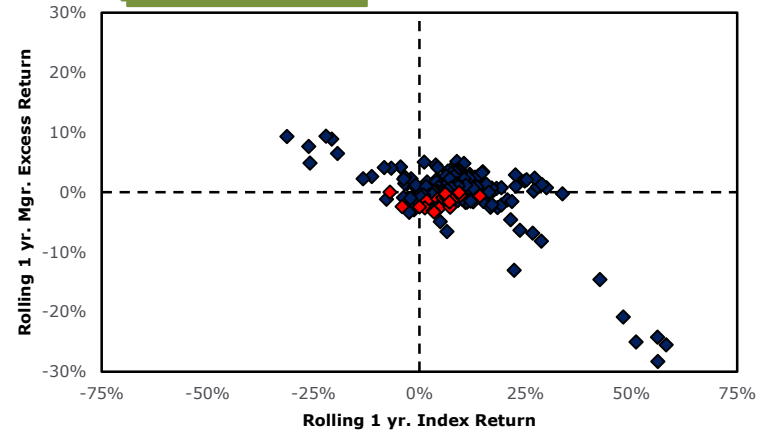
ROLLING 1 YEAR EXCESS RETURNS - (NET OF FEES)

Artisan - Artisan High Income



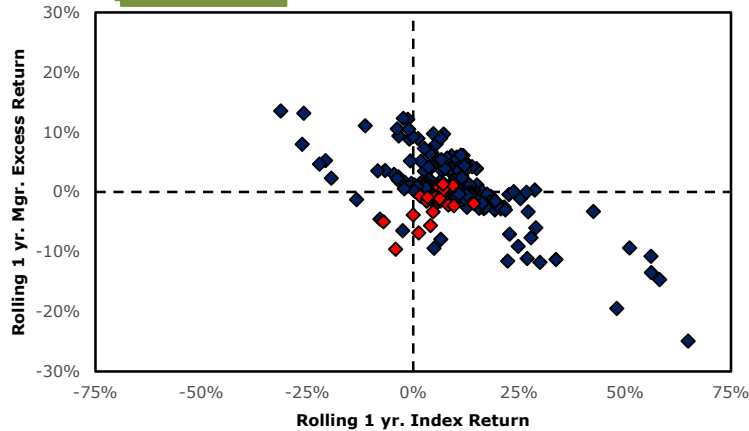
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Barings - High Yield



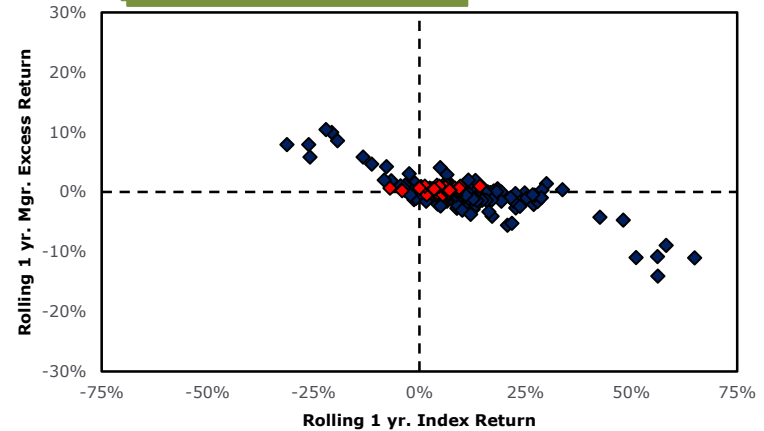
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Mesirow - HY



Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Wellington - High Yield Bond



Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

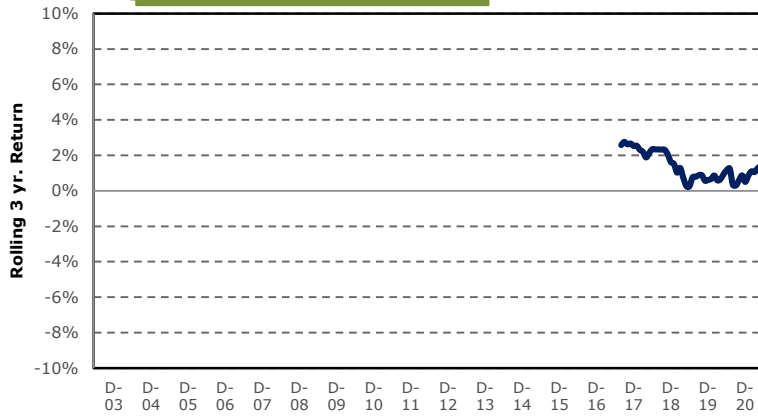
◆ = Rolling 1 year periods; ◆ = Last 24 rolling 1 year periods

High Yield



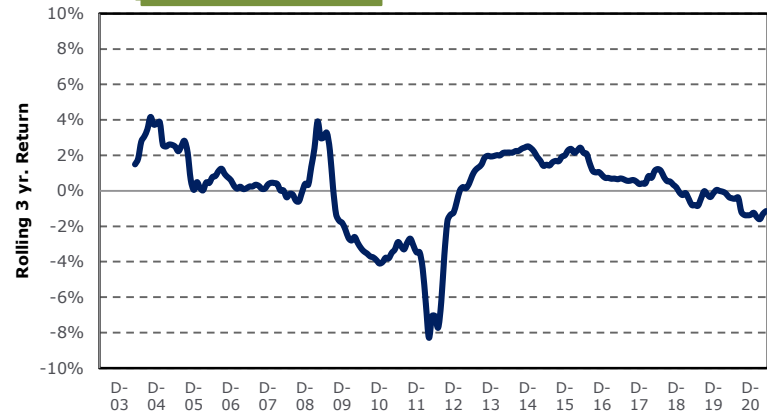
ROLLING 3 YEAR EXCESS RETURNS - (NET OF FEES)

Artisan - Artisan High Income



Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Barings - High Yield



Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Mesirow - HY




Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Wellington - High Yield Bond



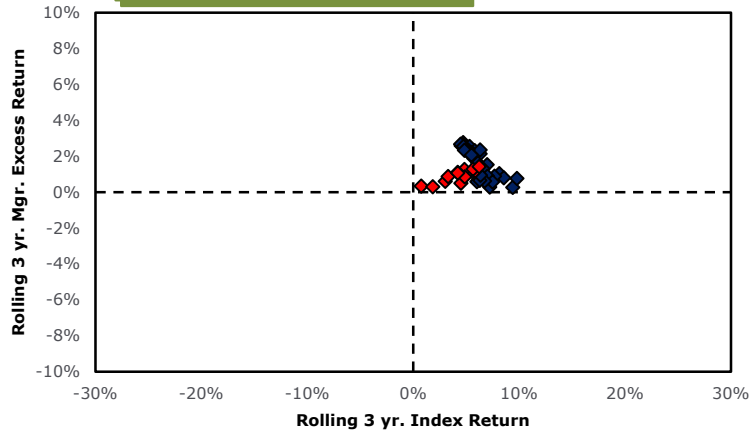
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

 High Yield



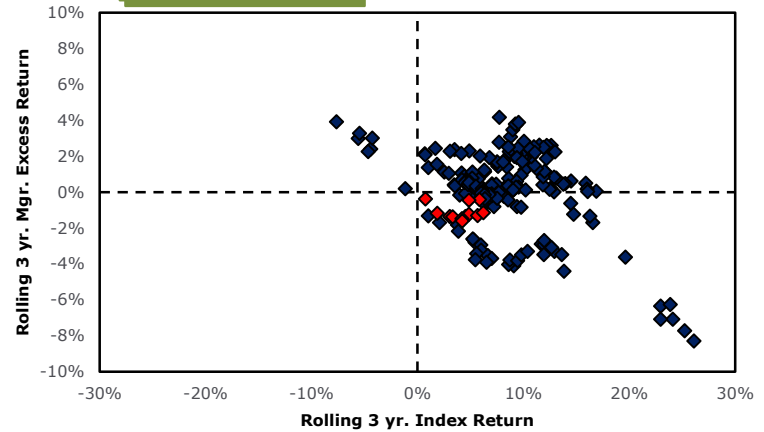
ROLLING 3 YEAR EXCESS RETURNS - (NET OF FEES)

Artisan - Artisan High Income



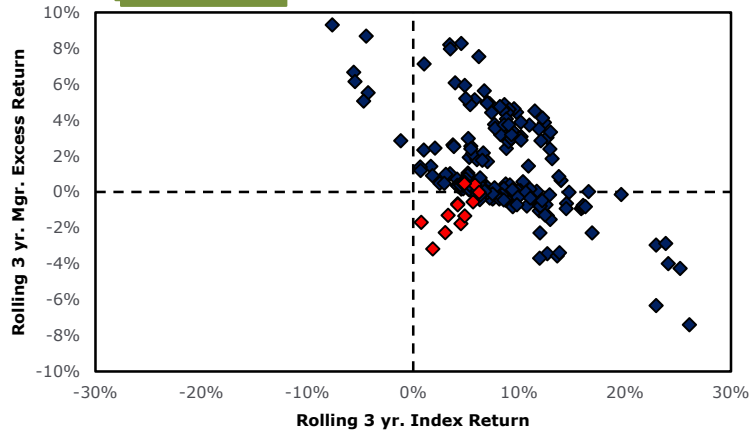
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Barings - High Yield



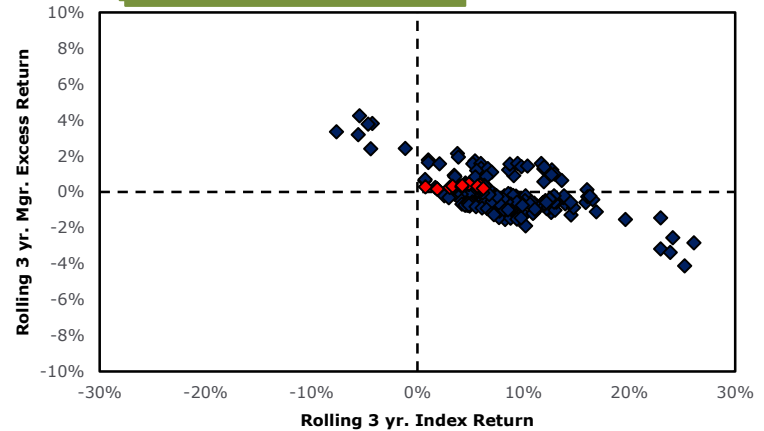
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Mesirow - HY



Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

Wellington - High Yield Bond



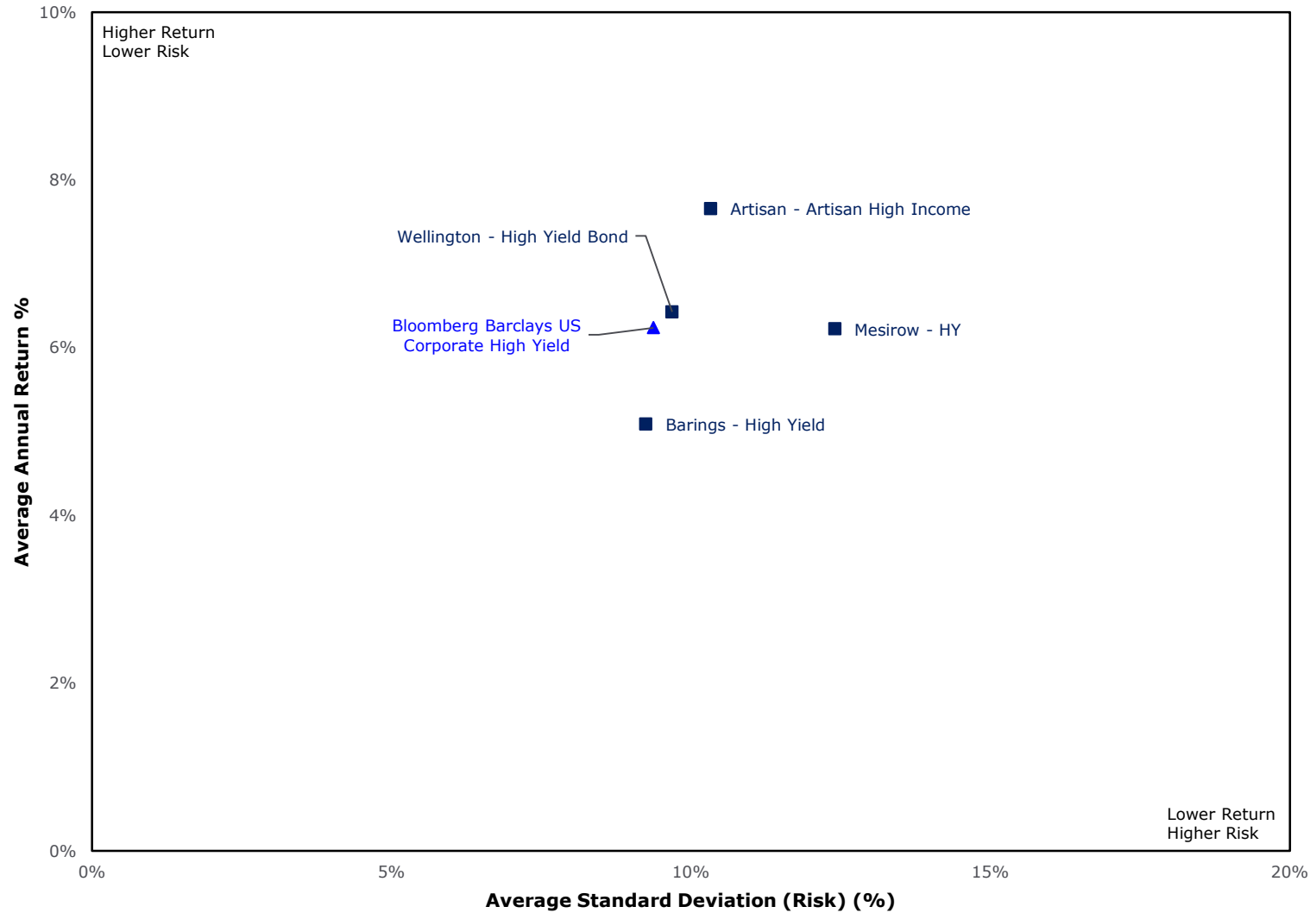
Excess Returns (Manager returns less Bloomberg Barclays US Corporate High Yield)

◆ = Rolling 3 year periods; ◆ = Last 12 rolling 3 year periods

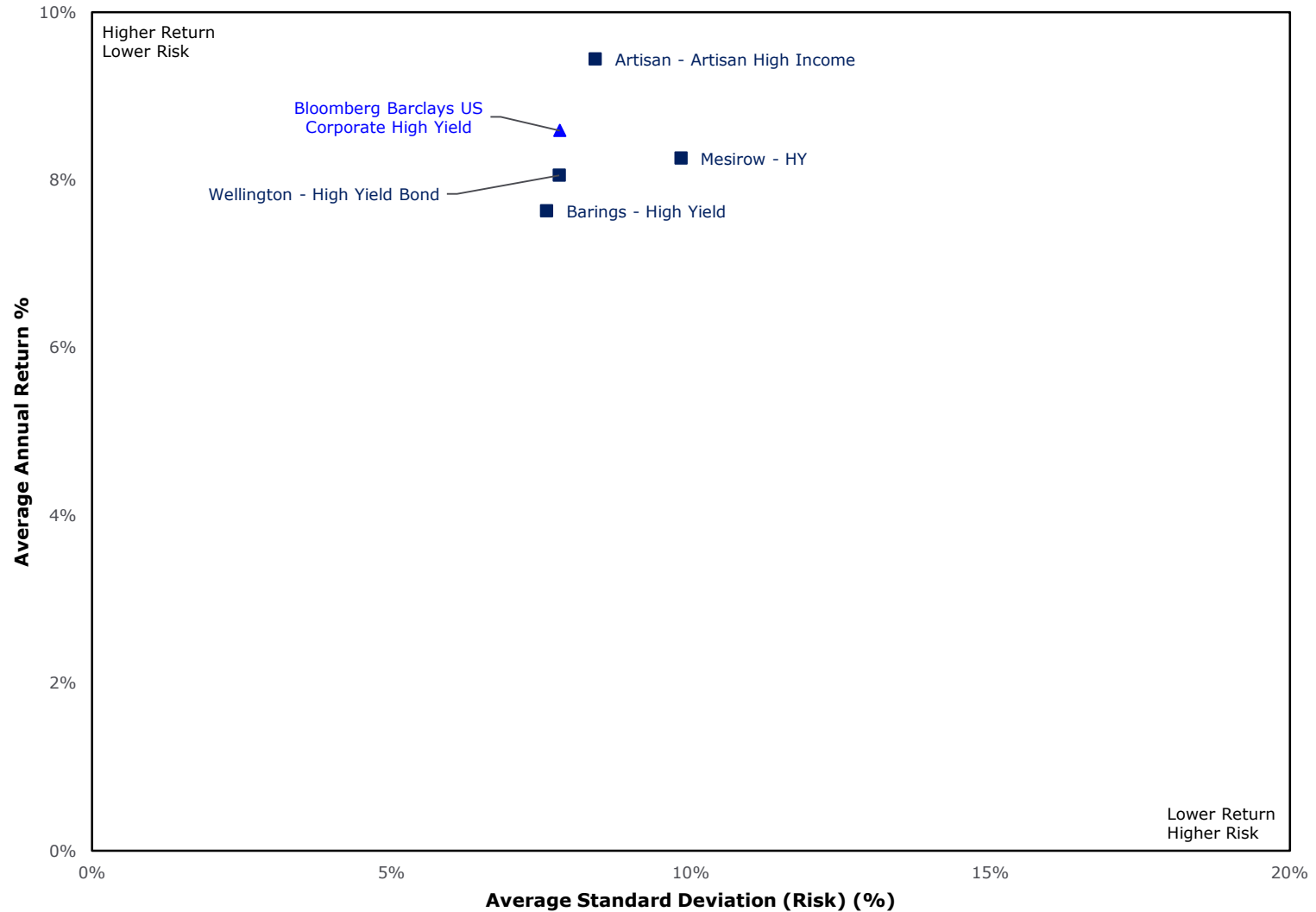
High Yield



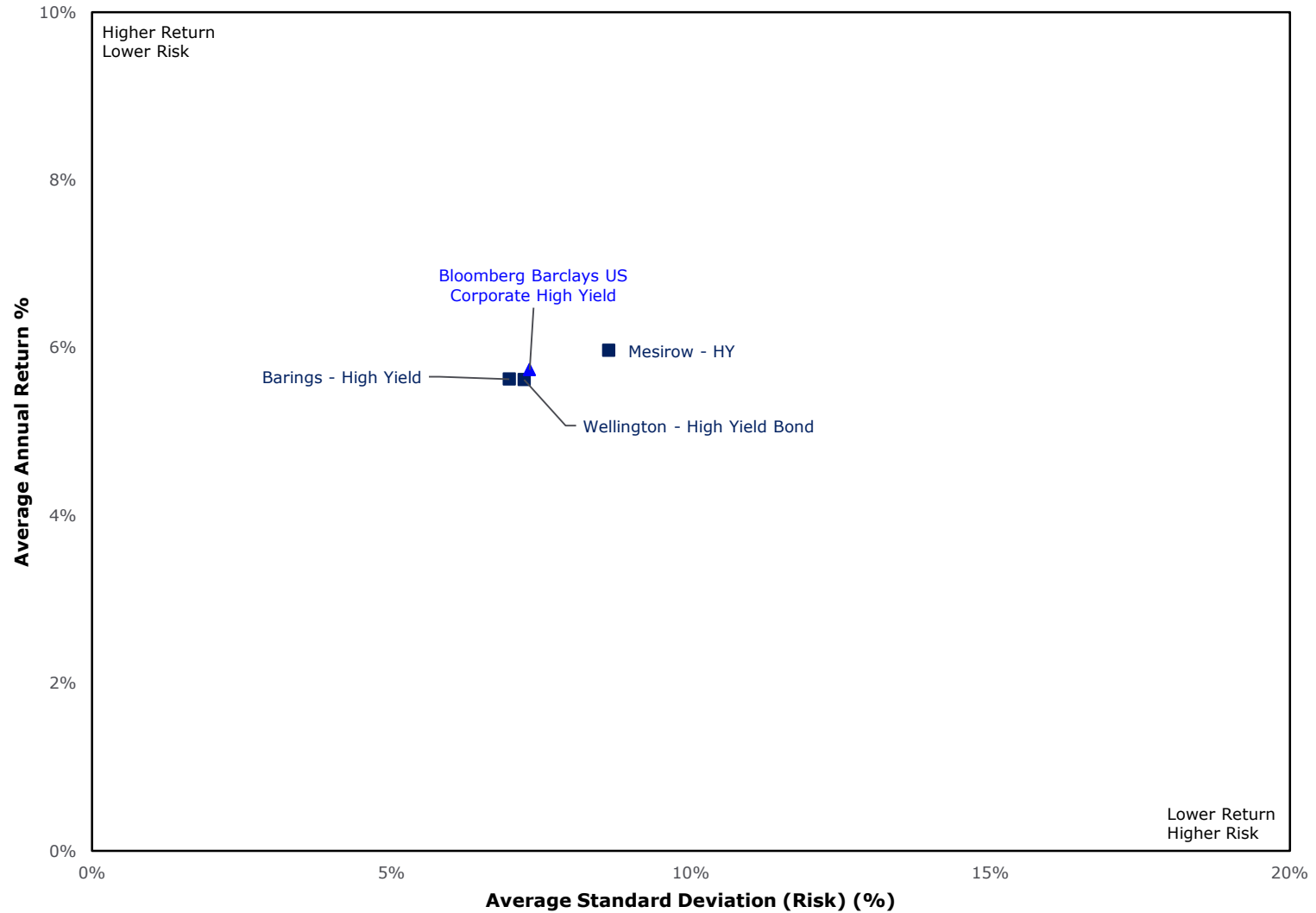
3 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



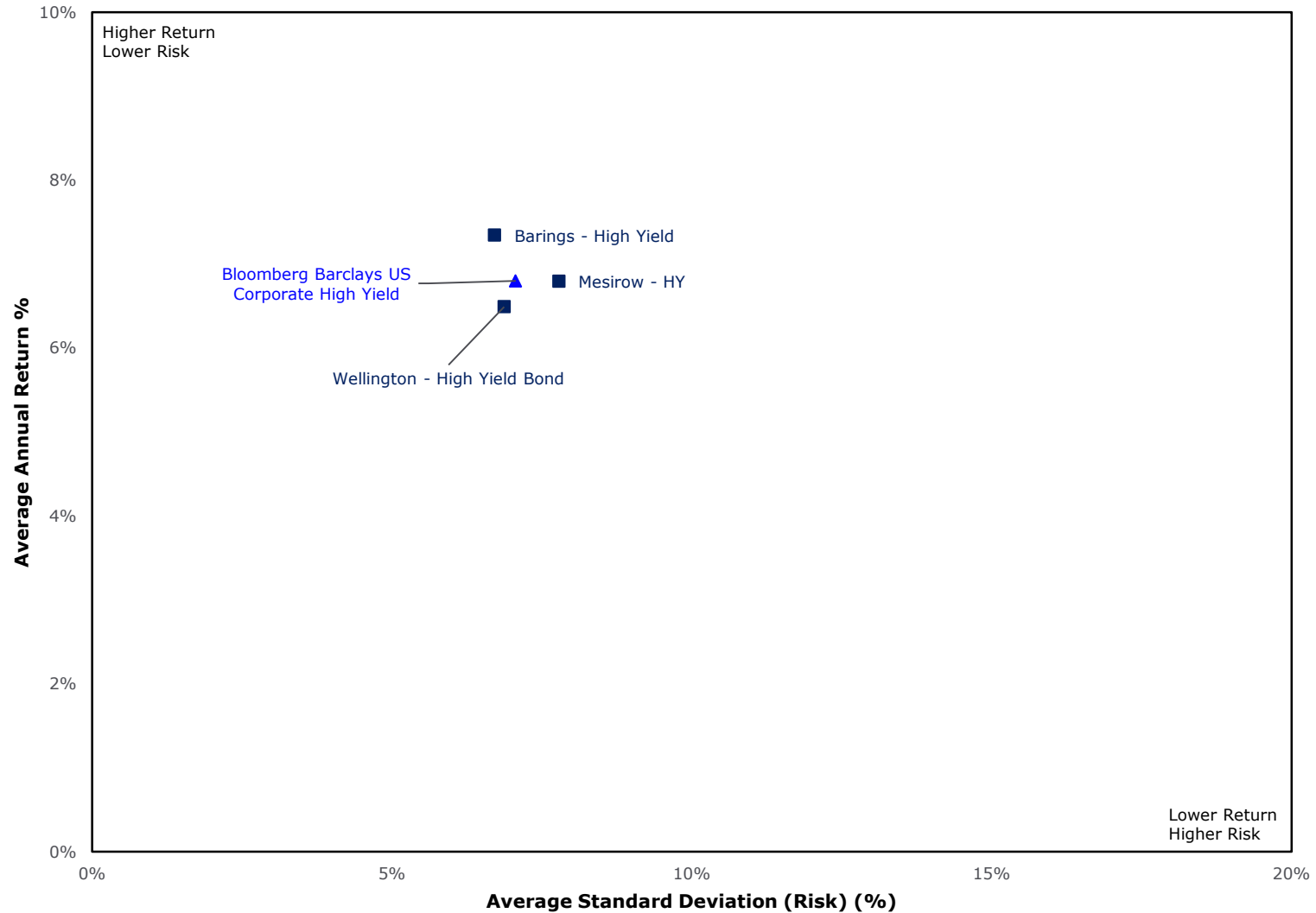
5 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



7 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



10 YEAR TOTAL RISK/RETURNS COMPARISON - (NET OF FEES)



APPENDIX

NEPC, LLC

PROFILES

NEPC, LLC

DESCRIPTION

The following pages contain profile descriptions regarding each Manager Firm and Investment Product including:

- **Firm Description**
- **NEPC Investment Thesis**
- **People**
- **Philosophy**
- **Investment Strategy**
- **Portfolio Structure**
- **Performance Expectations**
- **Biographies**

INVESTMENT FIRM/PRODUCT PROFILE

Artisan Partners Limited Partnership Artisan High Income

Alec Rapaport, Sr. Research Consultant
Source: NEPC and eVestment
August 2019

Firm Description

Artisan Partners Limited Partnership (Artisan) was founded in 1994 by Andrew A. Ziegler, Carlene Murphy Ziegler, and a group of private investors who were led by Hellman & Friedman and Sutter Hill Ventures. The firm has evolved the capital structure of the business to broaden employee ownership. Today Artisan Partners Limited Partnership is a wholly owned operating subsidiary of Artisan Partners Holdings LP, an independent investment firm controlled by its general partner Artisan Partners Asset Management, Inc. [NYSE:APAM]. APAM is a publicly traded company that is controlled by the employee partners of Artisan Partners. As of September 30, 2018, the company's investment professionals, senior management and other employees collectively owned approximately 17% of the economic interests in the company and a Stockholders Committee consisting of three employees possessed approximately 17% of the voting power in APAM. As required by SEC rules, the firm has disclosed in its public filings information about APAM capital stock held by its named executive officers and any holders of more than 5% of any class of APAM equity securities.

NEPC Investment Thesis

Artisan's High Income strategy invest in issuers, primarily within the non-investment grade universe, with high-quality business models that have compelling risk-adjusted return characteristics. The value-add in this strategy is that lead Portfolio manager Bryan Krug is unconstrained in the way he can invest in senior floating rate bank loans when the risk-return characteristics of a company's loan is more attractive than their high yield debt issue. Investors can expect to be invested primarily in high yield bonds, and have opportunistic exposure to loans in some environments. The team believes that market inefficiencies exist at different points along the credit cycle, therefore, allocating a portion of the portfolio away from high yield in favor of loans can be beneficial in some market environments throughout the credit cycle.

People

Artisan's Credit Team manages the High Income strategy and is headed by Bryan Krug. Artisan holds a strong belief in team autonomy. Artisan allows each investment team to have its own unique investment process and maintain its own research capabilities, believing this to be best practice that ultimately leads each group to run successful strategies. The fixed income team, headed by portfolio manager Bryan Krug, is supported by analysts and a trader dedicated solely to one investment philosophy and process.



INVESTMENT FIRM/PRODUCT PROFILE

Artisan Partners Limited Partnership Artisan High Income

Philosophy

The Credit Team's investment philosophy is based on the belief that the non-investment grade credit market has cyclical industry and company dislocations that can be exploited. The team believes that these investment opportunities can be identified through fundamental bottom-up credit research and value identification across the capital structure. Furthermore, the team believes that attractive risk-adjusted returns can consistently be achieved over a full credit cycle through the implementation of a repeatable, high conviction investment process.



INVESTMENT FIRM/PRODUCT PROFILE

Artisan Partners Limited Partnership Artisan High Income

Investment Strategy

While the process is a collaborative effort that allows the team to leverage internal resources and expertise, final decision-making ability lies with Bryan Krug. Together with Bryan, the analysts, as members of the research team, perform bottom-up credit analysis with generalist responsibilities. The Credit Team believes that the having a broader perspective under the generalist model, as posed to sector specific research coverage, helps eliminate missed opportunities. The Credit Team has a daily markets meeting, a daily investment meeting, and adheres to a quarterly re-underwriting of names. The investment process starts through idea generation/sourcing through the use of quantitative screens and non-quantitative sources. Quantitative screens are used to evaluate yield, relative value by sector, and bond and loan outperformers/underperformers. Non-Quantitative sources that are evaluated include credit trends, industry analysis, and security specific characteristics. Business evaluation is done through fundamental credit research. This bottom-up fundamental research process is done to assess business quality, financial strength, a downside analysis, and a target valuation for the credit. The result of this process is a portfolio consisting of 20%-60% Core credits, 10-50% Spread Tightening credits, and 10%-30% Opportunistic credit. Core investments are positions the team views as having stable to improving credit profiles and lower loan to value ratios. Core investments represent the portfolio's stable foundation of income. Spread investments are those where the team has an out-of-consensus view about a company's credit improvement potential. They believe these investments have significant upside potential which the broader market is mispricing. The team looks for scenarios where the potential for financial deleveraging can result in improved credit fundamentals, leading to spread tightening. These investments have unique, idiosyncratic risk profiles. Opportunistic investments are driven by market dislocations that have created a unique investment opportunity in the team's view. These selective opportunities can be driven by technicals in the loan and bond markets, where a short-term tactical scenario creates pricing dislocations. This category can also be a home for catalyst-driven ideas. If the team is comfortable with an underlying credit and think a meaningful catalyst is on the horizon, they may establish an opportunistic position.

Portfolio

The team is not geographically constrained, but their expertise and experience that the team has built over the years has led them to focus primarily on US-based issuers. Occasionally there are attractive investments outside of the US, most commonly in Europe.



INVESTMENT FIRM/PRODUCT PROFILE

Artisan Partners Limited Partnership Artisan High Income

Performance Expectations

Expect good performance in most environments. Downside protection should be expected through the use of senior secured floating rate bank loans when appropriate.



BIOGRAPHIES OF KEY PROFESSIONALS

Artisan Partners Limited Partnership Artisan High Income

Bryan Krug, Managing Director and Portfolio Manager

Bryan C. Krug, is a managing director of Artisan Partners and a portfolio manager on the Credit team. In this role, he is the portfolio manager for the Artisan High Income Strategy. Prior to joining Artisan Partners in December 2013, Mr. Krug was the portfolio manager of Ivy High Income Fund at Waddell & Reed from February 2006 through November 2013. Mr. Krug joined Waddell & Reed in 2001 as a high yield investment analyst and was later promoted to portfolio manager. Earlier in his career, he was affiliated with Pacholder Associates as the primary analyst for a distressed portfolio. Mr. Krug holds a bachelor's degree in finance from Miami University, Richard T. Farmer School of Business.

INVESTMENT FIRM/PRODUCT PROFILE

Barings LLC Barings US High Yield Bonds

Alec Rapaport, Sr. Research Consultant
Source: NEPC and eVestment
March 2021

Firm Description

Barings LLC formerly Cornerstone was founded in 1994 to serve as the investment manager for the MassMutual real estate equity portfolio and with the intent to grow an investment management business for other institutional investors over time. Barings LLC formerly Cornerstone registered with the SEC as an Investment Adviser on April 1, 1996, and Barings formerly Cornerstone has not merged with or acquired another investment manager since its founding. In 2004, the company changed from a C-corp (Inc.) format to a Limited Liability Company (LLC). No other name, ownership or company format changes are contemplated at this time. This change had no impact on company operations and no other name, ownership or company format changes are contemplated at this time. Barings formerly Cornerstone began managing assets for seven tax-exempt institutions in 1997, concurrent with their investment in the Cornerstone Suburban Office L.P., a closed-end, commingled real estate fund formed by Cornerstone that invested in geographically diverse, suburban office properties.

NEPC Investment Thesis

The Barings US High Yield strategy draws upon the firm's well resourced investment platform to construct portfolios focusing on both European high yield markets and domestic U.S. high yield markets. The portfolio is expected to take high conviction positions in European and U.S. high yield bonds, while avoiding emerging markets. The value-add that this strategy brings to investing in the global high yield market is the team's experience in high yield investing, and their time-tested process of successfully targeting high current income, capturing capital appreciation in below investment grade bonds, and the ability to avoid defaults. The Baring's Global Fixed Income and Multi-Asset team is well resourced and incorporates a process that spans across the research platform in a way that researches companies and issues in a way that all identifiable aspects of risk are measured and monitored.

INVESTMENT FIRM/PRODUCT PROFILE

Barings LLC **Barings US High Yield Bonds**

People

Martin Horne is the Head of the Global High Yield Investments group Barings. He oversees over \$60 billion in global high yield assets, and a team of over 80 dedicated global high yield investment professionals. This is a very deep team for a global high yield manager. U.S. High Yield Investments is led by David Mihalick (over \$30 billion, 40+ investment professionals), European High Yield is led by Martin Horne (over \$15 billion, 20+ investment professionals), and Structured Credit is led by Matt Natcharian (over \$13.5 billion, 15+ investment professionals). There are three investment committees that pertain to this strategy; Global High Yield, U.S. high Yield, and European High Yield committees. Each are well staffed with applicable members of the broader platform, and meet daily/weekly to set target geographic and asset class allocations for global strategies.

Philosophy

Barings believes that attractive long-term, risk-adjusted returns can best be achieved through: 1) Strong fundamental credit underwriting with the primary focus on principal preservation, and 2) Active portfolio management aiming to capture the best relative value and identify opportunities for capital appreciation.



INVESTMENT FIRM/PRODUCT PROFILE

Barings LLC Barings US High Yield Bonds

Investment Strategy

The High Yield Investments Group's investment style is fundamental bottom-up analysis with a long-term focus in mind. The key to credit selection is assessing based on the expected long-term success of a company, its ability to service its capital structure, and any mispricing perceived by the market on its securities. Portfolio construction is a three step process. 1) Fundamental Bottom-Up Research and Investment Committee - Internal fundamental bottom-up credit analysis focusing on company financials, management team, industry outlook and company performance. The Investment Committee takes a team-based approach to credit decision making, believing this is the key to unlocking value in the high yield space. 2) Portfolio Construction and Relative Value Decisions - Individual portfolio managers use discretion to construct a portfolio of assets from the buy-list that match the portfolio's investment guidelines and risk / return objective. Analysts make credit recommendations based on a 12-month outlook (i.e. improving credit, stable credit, or declining credit). Security weighting is based upon relative value decisions. Typically hold 0.5% to 1.0% for normal positions and 1.5% to 2.5% for positions with strong conviction. 3) Active Portfolio Monitoring / Sell Discipline - Research analysts monitor credit performance daily and provide updates as events occur. Portfolio managers review performance and market strategy through: daily investment committee meetings, weekly Portfolio Management meetings, and other internal ad-hoc meetings. Decision to sell is based on a research analyst and portfolio manager's current risk assessment, and is weighed against current market prices, as well as client objectives and constraints. The Investment Committee can vote for a mandatory sale in certain situations. Portfolios will be constructed with issues that bear high conviction and the capability of performing in both up and down market environments. The primary universe of the strategy is the Bank of America Merrill Lynch Non-Financial Developed Markets High Yield Constrained Index, but will invest in out of benchmark securities if bottom-up research points to the potential of these securities to add value to the portfolio. The Strategy is benchmark aware, and not benchmark driven, if an investment opportunity does not exemplify the right attributes, then it will not be purchased even though it might be large constituent in the benchmark.

INVESTMENT FIRM/PRODUCT PROFILE

Barings LLC **Barings US High Yield Bonds**

Portfolio

Typically the portfolio will have 125 - 175 issuers in the portfolio over a cycle. At all times, at least 80% of the portfolio will be invested in below investment grade securities. This strategy will use currency forward contracts for the purposes of hedging back to base currency. That said, the High Yield strategy takes a currency agnostic approach to investing by executing a passive currency overlay program that primarily uses foreign exchange forwards to hedge assets back to a base currency. Sector weightings and positions in single names are to be interpreted as the result of bottom-up fundamental research and conviction level.

Performance Expectations

The strategy targets outperformance of 150bps over a full market cycle. Credit selection and avoiding defaults is the focus of firm's approach to high yield investing.



BIOGRAPHIES OF KEY PROFESSIONALS

Barings LLC **U.S. High Yield Bonds**

Michael Freno, Managing Director, Head of U.S. High Yield

Michael Freno is a member of the firm's High Yield Investments Group and is a research analyst in the U.S. Bank Loan Portfolio Management and Research team. He has 10 years of industry experience. Prior to joining Babson Capital in 2005, Michael was a research analyst for Mangan & McColl Partners, LLC, where he focused on equity and credit analysis for special situation and distressed investments for the firm. Prior to that, Michael was a Manager at PricewaterhouseCoopers. He holds a B.A. from Furman University, an M.B.A. from The Wake Forest Babcock School of Business.

Sean Feeley, CFA, CPA, Managing Director, Portfolio Manager

Sean Feeley is Head of High Yield Research and a member of the High Yield Bond and Loan Investment Committees. His team is responsible for the analysis of high yield bonds and loans for various fixed income strategies. He is also a portfolio manager and a team leader for the energy and power sectors. Sean has over 21 years of industry experience. Prior to joining the firm in 2003, he worked at Cigna Investment Management in project finance and at Credit Suisse, where he worked in the leveraged finance group. He holds a B.S. in accounting from Canisius College (Magna Cum Laude) and an M.B.A. from Cornell University. Sean is a Certified Public Account (inactive) and a member of the CFA Institute.

Scott Roth, CFA, Managing Director, Portfolio Manager

Scott Roth is a member of the firm's High Yield Investments Group. He is a portfolio manager and a member of the High Yield Bond Investment Committee. In addition, he is a team leader for the automotive, homebuilding/building materials, aerospace/defense and paper/packaging sectors. Scott has over 17 years of industry experience. Prior to joining Babson Capital in 2002, Scott worked at Webster Bank and was a high yield analyst at Times Square Capital Management. In addition, he spent time as an underwriter at Chubb Insurance Company. He holds a B.B.A. from Western Michigan University and an M.B.A. from the University of Michigan. Scott is a member of the CFA Institute.

INVESTMENT FIRM/PRODUCT PROFILE

Wellington Management Company LLP Wellington Core High Yield

Alec Rapaport, Sr. Consultant
Source: NEPC and eVestment
March 2020

Firm Description

Wellington Management Company was founded in 1928 by Walter Morgan when he established the first balanced mutual fund in the US. In 1967 the firm merged with Thorndike, Doran, Paine & Lewis, an independent investment counseling firm. In 1979, 29 original partners bought back the firm, which then switched to a partnership structure. In 1996 the firm was restructured as a limited liability partnership. Wellington is a full service investment manager focused on institutional clients. The firm's organizational culture is built around research and fosters creativity and independent thinking at all levels of the firm from analysts to portfolio managers. Wellington remains an independent private partnership owned entirely by its active partners.

NEPC Investment Thesis

Wellington's high yield strategy uses research and inputs from both the corporate high yield team and emerging markets debt team, choosing the best ideas from each region. Wellington aims to select amongst the best opportunities in global markets, thus building an efficient portfolio of credit investments. A particular strength at Wellington is emerging markets debt (sovereign and corporate).

People

Wellington's high yield team is managed by Chris Jones. Two other portfolio managers, David Marshak and Michael Hong round out the global high yield portfolio management group. The high yield research team consists of fourteen analysts. The credit research team averages thirteen years of experience. In addition to the high yield corporate team, the global high yield strategy will utilize inputs from Wellington's EMD team (four research analysts). Wellington also has analysts in London covering European issues.

Philosophy

Wellington believes that bottom-up fundamental research is the key to adding value across business cycles. The strategy will invest in US high yield bonds, European high yield and in emerging markets debt. The strategy will also dynamically adjust risk exposures over time to take advantage of spread widening and tightening during global economic cycles. Top down themes will play a role in overall sector and regional allocations.



INVESTMENT FIRM/PRODUCT PROFILE

Wellington Management Company LLP **Wellington Core High Yield**

Investment Strategy

Core High Yield emphasizes three areas to add value: broad macroeconomic strategy, credit research and analysis, and portfolio construction and risk controls. To synthesize macro strategies, the Global High Yield and Bank Loan portfolio managers and a cross-functional team of members from other areas of the firm meet quarterly to systematically assess the environment for high yield bonds. The team is designed to be small enough to facilitate decision making, yet broad enough to have competing points of view and active discussion. The team considers macro and micro factors that are expected to have an impact on the high yield bond market and how these factors might translate into appropriate investment strategy. The objective is to decide on industry weights, quality weights and beta positioning.

Research analysis is the most important step in the process. One analyst is assigned primary research coverage and responsibility for a credit opinion for each corporate bond issuer. Analysts are responsible for maintaining detailed financial models that include a projection of each issuer's future financial performance, including prospective debt servicing capabilities and capital structure composition. They also contact the senior management of each issuer discussing financial developments and industry trends.

High Yield analysts are responsible for assigning an Investment Rating (Strong Buy, Buy, Source of Funds, Sell) to express sector relative return expectations within a 12-month investment horizon. Similarly, analysts are responsible for assigning a Credit Risk Rating (on a numerical scale of 1-5) to express sector relative credit risk for names under their coverage.

Portfolio

The portfolio will be broadly diversified and has flexibility in its ability to allocate away from US high yield bonds. Within emerging markets, the strategy may invest in sovereign or corporate debt. The portfolio targets about 125 issues. Individual position weights are conviction-weighted, ranging from 0.5-3.5%. Oftentimes, larger positions will have several different research channels of support (high yield analyst, equity analysts, commodities, etc) with independently derived theses. Currency positions are not hedged.



INVESTMENT FIRM/PRODUCT PROFILE

Wellington Management Company LLP **Wellington Core High Yield**

Performance Expectations

Wellington's strategy will generally be more conservative than the index. We expect it to outperform in periods when spreads widen. Because Wellington is typically not extremely aggressive at moving down in quality, the strategy will probably not keep up with the market during periods of rapid spread tightening.



BIOGRAPHIES OF KEY PROFESSIONALS

Wellington Management Company LLP Wellington Core High Yield

Christopher Jones, CFA, Vice President and Portfolio Manager

Mr. Jones is a fixed income portfolio manager focusing on the Core High Yield and Core Plus High Yield products. He began his career at Wellington in 1994 as a Research Analyst in fixed income, specializing in the qualitative and quantitative review of high yield bonds. Prior to joining Wellington, Mr. Jones completed research for Foothill Group, an investment management company specializing in distressed debt, and he worked at La Jolla based Multiple Peptide Systems where he marketed custom molecules to research institutions and other end-users. Mr. Jones earned his MBA in Finance from the University of California, Los Angeles, and his BA, cum laude, from the University of California, San Diego. He also holds the Chartered Financial Analyst designation.

Jeffrey Heuer, CFA, Vice President and Fixed Income Credit Analyst

As an analyst in Fixed Income Credit Research, Mr. Heuer is responsible for the analysis of high yield bonds in the retail and supermarket, gaming, lodging, tobacco, textiles, and restaurant sectors. He also participates in the ongoing bond review process, determining where to invest within the fixed income universe and assessing the creditworthiness of individual issues within his sectors. Prior to joining Wellington Management in 2001, Mr. Heuer worked as a leveraged loan analyst at CypressTree Investment Management, where he analyzed credits in the consumer products, textiles, cyclical, and telecommunications industries (1999–2001). Mr. Heuer also held several credit analysis and lending positions at the former Chase Manhattan Bank and its predecessor organizations (1989–1998). Mr. Heuer received his MBA, with distinction, from the University of Pennsylvania (Wharton, 1994) and his BA from Williams College (1989). Additionally, he holds the Chartered Financial Analyst designation.

ESG PRODUCT COMPARISON

Firm/Product	Internal ESG Research Utilized (Y/N)	Third Party ESG Research Utilized (Y/N)	Manager Explanation of Research Methodologies Used
High Yield			
Artisan - Artisan High Income	Yes	No	The autonomous nature of Artisan Partners' investment teams allows each investment team the freedom to manage its process without an overarching corporate framework. As active managers, extensive fundamental research is critical to each of our team's investment processes. Through this fundamental research, each team considers a range of factors to assess the economic return potential of an investment. These considerations can include environmental, social and governance factors that the team believes may impact the investment thesis of a holding.
Barings - High Yield	Yes	Yes	In addition to rigorous in-house work done by Barings' research analysts and portfolio managers to evaluate ESG risks, our team also has access to third-party resources that provide institutional investors issuer-specific ESG data. We use MSCI's ESG ratings product, MSCI Analyst, which is considered one of the leading ESG research products in the industry. MSCI Analyst is a comprehensive web-based platform providing research, ratings, real-time updates, search functionality and analytical tools to help clients assess issuer risk. For companies covered in the MSCI Analyst database, Barings' analysts receive both an overall rating for the selected company and have the ability to research specific ESG factors that may be present. Analysts review the MSCI ratings research material and utilize the information as one of many factors within the underwriting and decision making process. It is the responsibility of each analyst and portfolio manager to ensure that their strategies and analysis include ESG considerations.

ESG PRODUCT COMPARISON

Firm/Product	Internal ESG Research Utilized (Y/N)	Third Party ESG Research Utilized (Y/N)	Manager Explanation of Research Methodologies Used
High Yield			
Mesirow - HY	Yes	Yes	<p>For Mesirow Financial Equity Management: Our fundamental research process identifies companies with attractive relative valuations, strong earnings and cash flow growth prospects, healthy balance sheets, and excess cash flow. Analysts use information obtained from third-party software and vendors to screen the universe for companies that exhibit constructive valuations, prospective growth opportunities, and favorable sustainable investment criteria based on ESG factors. Data related to the sustainable investment criteria is aggregated into a sustainable investment profile which includes an overall composite score based on our proprietary methodology. As a result, we generate a sub-set of companies which are aligned with our relative value philosophy and possess favorable or improving sustainable profiles. Analysts focus on various fundamental factors including a company's ability to drive revenue growth, manage new product cycles, maneuver industry/sector spending dynamics, and deliver incremental margins, margin expansion from internal sources, operating and financial leverage, return-on-capital and earnings growth. Our investment decision-making process is enhanced through the evaluation both qualitatively and quantitatively of the relative capabilities of a company's management team. Company management teams are expected to have a demonstrated record of delivering shareholder value and/or to have an identifiable strategy, with benchmarks and milestones, designed to deliver shareholder value over an investment time horizon. In addition, analysts assess the overall risk and opportunities related the company's sustainable investment profile and actively engage in conversations with management teams about observed deficiencies and disparities along with discussing ways to reduce the risk profile and improve disclosure.</p>

ESG PRODUCT COMPARISON

Firm/Product	Internal ESG Research Utilized (Y/N)	Third Party ESG Research Utilized (Y/N)	Manager Explanation of Research Methodologies Used
High Yield			
Wellington - High Yield Bond	Yes	Yes	<p>In addition to in-depth analysis of ESG factors and company engagement, our ESG team generates tailored, proprietary ESG research, which includes market analysis, and sector and country trends. To augment this research we maintain relationships with over 400 research providers, allowing access to multiple data sets across thousands of securities across every asset class. To help portfolio teams distill this data, our ESG team publishes sector and country guides that highlight key ESG risks. In addition, our ESG team works closely with the investment teams to tailor research and conduct in-depth portfolio reviews that identify holdings with the greatest ESG risks and strengths. We use ESG research from Goldman Sachs, UBS, Bank of America Merrill Lynch, Société Générale, MSCI, Bloomberg, GMI, Sustainalytics, Equilar and FactSet amongst others.</p>

TOTAL FIRM ASSETS

Firm	YTD		2019		2018		2017	
	\$MM	# of accounts	\$MM	# of accounts	\$MM	# of accounts	\$MM	# of accounts
High Yield								
Artisan Partners Limited Partnership	157,776	258	121,016	237	96,224	235	115,494	237
Barings LLC	345,163	2,130	338,663	2,023	303,917	1,846	304,559	1,726
Mesirow Financial Investment Management, Inc.	147,858	10,672	130,690	10,216	115,510	10,433	114,085	10,184
Wellington Management Company LLP	1,291,419	2,383	1,154,735	2,369	1,003,389	2,327	1,080,307	2,193



TOTAL PRODUCT ASSETS

Firm/Product	YTD		2019		2018		2017	
	\$MM	# of accounts	\$MM	# of accounts	\$MM	# of accounts	\$MM	# of accounts
High Yield								
Artisan - Artisan High Income	6,241	4	3,783	1	2,802	1	2,517	1
Barings - High Yield	5,767	57	5,387	53	4,603	48	7,459	38
Mesirow - HY	1,339	4	1,187	4	884	3	512	1
Wellington - High Yield Bond	2,823	11	2,860	13	2,509	15	3,332	16

PRODUCT ASSETS BY VEHICLE TYPE

Firm/Product	Separate Account		Commingled Fund		Inst. Mutual Fund	Retail Mutual Fund
	\$MM	# of accounts	\$MM	# of accounts	\$MM	\$MM
High Yield						
Artisan - Artisan High Income	450	2	171	1	5,337	283
Barings - High Yield	5,406	30	278	16	0	83
Mesirow - HY	1,215	2	69	1	55	0
Wellington - High Yield Bond	2,322	7	501	4	0	0

ACCOUNT MINIMUMS AND FEE SCHEDULES

Firm/Product	Separate Account Min. (\$MM)	Commingled Fund Min. (\$MM)	Mutual Fund Min. (\$MM)	Separate Account Fee Schedule	Commingled Fund Fee Schedule	Mutual Fund Ticker and Fee
High Yield						
Artisan - Artisan High Income	100	0	1	First \$250 million - 0.55% Balance - 0.50%	All Assets at 0.68%	APHFX - 0.73%
Barings - High Yield	100	1	1	First \$100 million - 0.48% Next \$150 million - 0.43% Balance - 0.38%	All Assets at 0.45%	BXHIX - 0.75%
Mesirow - HY	25	1	1	First \$25 million - 0.60% Next \$25 million - 0.55% Next \$50 million - 0.50% Balance - 0.45%	All Assets at 0.40%	MFHIX - 0.75%
Wellington - High Yield Bond	100	1	NA	All Assets at 0.50%	All Assets at 0.40%	Not Available



LITIGATION

Firm	Manager's explanation of Prior or Pending Litigation
High Yield	
Artisan Partners Limited Partnership	Artisan Partners does not publicly comment on legal proceedings or litigation. Information regarding Artisan Partners' required regulatory disclosures can be found under Item 11 - Disclosure Information of Artisan Partners' Form ADV Part 1.
Barings LLC	There is no pending or threatened litigation relating to any Barings entity or employee of any such entity related to investment management which Barings believes could be deemed material by a reasonable investor. A summary of investment-related litigation matters is available upon request.
Mesirow Financial Investment Management, Inc.	There is no prior or pending litigation.
Wellington Management Company LLP	From time to time, Wellington Management is involved in litigation that arises in the ordinary course of its business, none of which is material with respect to the firm's investment management business or its clients.

CONTACT INFORMATION

Manager	Location	U.S. Client Contact	Phone	Email
High Yield				
Artisan Partners Limited Partnership	Milwaukee, Wisconsin	Eileen Kwei, CFA	(415) 283-1087	eileen.kwei@artisanpartners.com
Barings LLC	Charlotte, North Carolina	Jennifer Brown	(212) 973-5127	jennifer.brown@barings.com
Mesirow Financial Investment Management, Inc.	Chicago, Illinois	James Kilbane	(312) 595-6761	jkilbane@mesirowfinancial.com
Wellington Management Company LLP	Boston, Massachusetts	Bridget Olsen	(617) 263-4478	BAOlsen@wellington.com

GLOSSARY OF TERMS

- **Beta:** A measure of volatility, or systematic risk, of a security or a portfolio in comparison to the market as a whole. Beta can be thought of as the tendency of a security's returns to respond to swings in the market. A beta of 1 indicates that the security's price will move with the market.
- **Correlation:** A statistical measure of how two securities move in relation to each other. Correlation is computed into a correlation coefficient which ranges between -1 to +1. A perfect positive correlations (+1) implies that as one security moves either up or down, the other security will move in the same direction. Alternatively, a perfect negative correlation (-1) means that if one security moves in either direction, the security that is perfectly negatively correlated will move by an equal amount in the opposite direction.
- **Information Ratio:** A measure of portfolio management's performance against risk and return relative to a benchmark or alternative measure.
- **Kurtosis:** A statistical measure used to describe the distribution of observed data around the mean. Kurtosis describes trends in charts. A high kurtosis portrays a chart with fat tails and a low, even distribution, whereas a low kurtosis portrays a chart with skinny tails and a distribution concentrated toward the mean.
- **Skewness:** A statistical term used to describe a situation's asymmetry in relation to a normal distribution. A positive skew describes a distribution favoring the right tail, whereas a negative skew describes a distribution favoring the left tail.
- **Tracking Error:** A divergence between the price behavior of a position or a portfolio and the price behavior of a benchmark. Tracking errors are reported as a "standard deviation percentage" difference. It represents the difference between the return of a fund and that of the benchmark the fund was trying to copy.

DISCLAIMER

- **This report contains summary information regarding the investment management approaches described herein but is not a complete description of the investment objectives, policies or portfolio management and research that supports these approaches. This analysis does not constitute a recommendation to implement any of the aforementioned approaches.**
- **Past performance is no guarantee of future results.**
- **Information on market indices was provided by sources external to NEPC, and other data used to prepare this report was obtained directly from the investment manager(s). While NEPC has exercised reasonable professional care in preparing this report, we cannot guarantee the accuracy of all source information contained within.**
- **This report may contain confidential or proprietary information and may not be copied or redistributed to any party not legally entitled to receive it.**