



DISCOUNT STATISTICS OF CLOSED-END FUNDS UPDATE FOR THE 4th QUARTER 2017

This article will update the Highland Global study, “Discount Statistics of Closed-end Funds,” (originally published in November 2005 and updated quarterly) for data relating to the fourth quarter of 2017. The original article with more details regarding discount statistics of closed-end funds is available at www.HighlandGlobal.com. Historic releases of our research can be accessed from our website.

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Google’s Beta Data & Barron’s Closed-End Fund Data

Each quarter, Barron’s Online (www.barrons.com) reports statistics on publicly-traded closed-end funds. The statistics reported include the discount (or premium) of the market price from the fund’s net asset value (NAV), the 52-week average discount or premium, the fund’s objective, and various return measurements, etc. Google (www.google.com/finance) reports various statistics on these funds, including metrics of beta. Highland Global then calculates the discount range, average, median, and standard deviation and reports these figures based on metrics such as the total data population, beta ranges, fund objectives, etc. The following table provides the summary of the analysis of closed-end funds with discounts to NAV during the fourth quarter 2017.

	Discount 12/31/2017	52 Wk Avg Discount	Beta
AVERAGE	7.3%	7.4%	0.49
MEDIAN	7.2%	6.9%	0.48
STANDARD DEVIATION	4.7%	5.2%	0.51
COUNT	431	416	406
MIN	0.0%	0.1%	2.27
MAX	35.6%	58.6%	-0.28

Source: Based on data obtained from www.barrons.com and www.google.com/finance



The following table provides the average and median discounts for the entire population and for those closed-end funds with reported betas for given quarters.

Closed-End Fund Discount Statistics	As of	As of	As of	As of	As of
	12/31/2017	9/30/2017	6/30/2017	3/31/2017	12/31/2016
Average Discount of Entire Population	7.3%	6.5%	6.7%	7.6%	8.5%
Median Discount of Entire Population	7.2%	6.3%	6.7%	7.3%	8.3%
Average Discount of Closed-End Funds with Reported Betas	7.4%	6.7%	6.9%	7.7%	8.6%
Median Discount of Closed-End Funds with Reported Betas	7.5%	6.5%	6.8%	7.5%	8.3%

Based on calculations by Highland Global from data obtained from www.barrons.com and www.google.com/finance

The following table provides average and median discounts for the entire population and for those closed-end funds with reported betas for the fifty-two week periods.

Closed-End Fund Discount Statistics	52-week	52-week	52-week	52-week	52-week
	Average	Average	Average	Average	Average
	12/31/2017	9/30/2017	6/30/2017	3/31/2017	12/31/2016
Average Discount of Entire Population	7.4%	7.6%	7.9%	8.2%	8.7%
Median Discount of Entire Population	6.9%	7.4%	7.5%	7.6%	8.4%
Average Discount of Closed-End Funds with Reported Betas	7.5%	7.8%	7.9%	8.2%	8.7%
Median Discount of Closed-End Funds with Reported Betas	7.0%	7.4%	7.5%	7.5%	8.4%

Based on calculations by Highland Global from data obtained from www.barrons.com and www.google.com/finance

The following table provides the count for the number of funds within each objective.

Closed-End Fund Distribution 12/31/2017		
Fund Objective	Count	%
Capital Appreciation	3	0.7%
Convertible Securities	11	2.5%
Emerging Markets	35	7.8%
Fixed Income	96	21.5%
Global	21	4.7%
Growth	9	2.0%
Growth & Income	12	2.7%
Income & Preferred Stock	22	4.9%
Muni Bonds	142	31.8%
Pacific excluding Japan	4	0.9%
Sector Equities	43	9.6%
World Income	16	3.6%
Uncategorized	33	7.4%
Total	447	100.0%

Based on calculations by Highland Global



The following table illustrates the descriptive statistics for each group of fund objectives.

Average & Median Beta & Discounts by Objective						
Objective	Average	Average	Average	Median	Median	Median
	Discount	Discount	Beta	Discount	Discount	Beta
	12/31/2017	52-week		12/31/2017	52-week	
Capital Appreciation	17.8%	14.2%	1.42	16.6%	17.5%	1.04
Convertible Securities	7.4%	6.3%	0.90	8.7%	7.2%	0.93
Emerging Markets	12.2%	12.9%	0.91	11.2%	11.4%	0.91
Fixed Income	6.5%	6.1%	0.43	7.1%	6.5%	0.46
Global	7.1%	8.8%	0.94	7.8%	8.8%	1.00
Growth	12.1%	14.5%	0.98	10.6%	12.0%	1.17
Growth & Income	8.0%	9.4%	0.96	8.9%	9.2%	0.96
Income & Preferred Stock	4.7%	5.1%	0.54	2.7%	3.5%	0.31
Muni Bonds	7.1%	5.8%	-0.04	7.2%	5.7%	-0.05
Pacific excluding Japan	7.0%	9.8%	0.75	7.1%	10.1%	0.78
Sector Equities	6.1%	8.3%	0.85	5.4%	7.1%	0.90
World Income	8.3%	8.4%	0.60	9.2%	8.9%	0.60
Uncategorized	5.9%	7.4%	1.23	5.9%	7.9%	1.19

Based on calculations by Highland Global from data obtained from www.barrons.com and www.google.com/finance

The descriptive statistics presented in the previous tables may be useful in helping the analyst determine an appropriate baseline discount from which adjustments may be made to determine the final discount applicable to the minority interest being valued. In the end, however, the analyst always must use reasoned and informed judgment in determining the appropriate baseline discount and the adjustment from that baseline to reflect the particular risk characteristics of the minority interest being valued.



Barron's Closed-End Fund Data

Barron's Closed-end Fund Data					
Fund Name	Ticker	Objective	Discount 12/31/2017	52 Wk Avg Discount	Beta
Engex (x)	EXGI	Capital Appreciation	-35.6	-21.2	0.95
Central Secs (x)	CET	Capital Appreciation	-16.6	-17.5	2.27
GuggenEnhEq	GPM	Capital Appreciation	-1.3	-3.9	1.04
Ellsworth G&I Fund Ltd	ECF	Convertible Securities	-8.8	-10.8	0.87
AGI Eqty & Conv Inc	NIE	Convertible Securities	-8.7	-9.9	0.99
Bancroft Fund Ltd	BCV	Convertible Securities	-9.8	-9.0	0.70
AdvntClymrFd	AVK	Convertible Securities	-9.3	-8.3	1.03
Advent Clay Conv Secs	AGC	Convertible Securities	-10.1	-8.1	1.03
PutnamHilncBd	PCF	Convertible Securities	-6.9	-7.2	0.71
AGI Dvs Inc & Conv	ACV	Convertible Securities	-4.1	-5.5	
Gabelli Conv Sec (x)	GCV	Convertible Securities		-4.6	0.81
Calmos Dyn Conv and Inc	CCD	Convertible Securities	-2.3	-3.3	
AllianzGI Con & Inc 2024	CBH	Convertible Securities	-7.0	-1.1	
CalamosConvHi	CHY	Convertible Securities		-1.1	1.07
Cdn Wrld Fd Ltd (y)	T.CWF	Emerging Markets	-31.5	-37.3	
Cdn Genl Inv (y)	CGI	Emerging Markets	-28.4	-28.5	1.88
United Corps Ltd (xy)	UNC.TO	Emerging Markets	-27.0	-25.6	0.37
Economic Inv Tr (xy)	EVT.TO	Emerging Markets		-24.3	0.49
MS ChinaShrFd (J)	CAF	Emerging Markets	-16.9	-14.8	0.89
Herzfeld Caribb	CUBA	Emerging Markets	-14.3	-13.1	1.28
MS Asia	APF	Emerging Markets	-12.4	-12.8	0.94
MexicoEqandIncmFd	MXE	Emerging Markets	-13.3	-12.7	0.83
ISL	ISL	Emerging Markets	-13.9	-12.1	0.59
Aberdeen Chile	CH	Emerging Markets	-9.2	-12.1	-0.35
LatAmDiscy	LDF	Emerging Markets	-11.9	-12.0	1.02
MS EmgMkt	MSF	Emerging Markets	-12.3	-11.8	0.96
Templeton Dragon	TDF	Emerging Markets	-12.3	-11.8	0.95
Central and Eastern Euro (x)	CEE	Emerging Markets	-11.1	-11.8	1.03
Aberdeen Singapore	SGF	Emerging Markets	-8.9	-11.7	0.91
Mexico	MXF	Emerging Markets	-12.9	-11.6	0.88
Aberdeen Japan Equity	JEQ	Emerging Markets	-11.1	-11.5	0.77
Japan Smaller Cap	JOF	Emerging Markets	-12.1	-11.4	0.76
Taiwan	TWN	Emerging Markets	-10.0	-11.4	0.66
India Fund	IFN	Emerging Markets	-11.5	-11.0	1.00
Templeton Em Mkt	EMF	Emerging Markets	-11.2	-10.9	1.07
MS India	IIF	Emerging Markets	-11.2	-10.8	0.93
New Germany (x)	GF	Emerging Markets	-9.5	-10.6	1.11
New Ireland	IRL	Emerging Markets	-12.7	-10.5	0.67
Aberdeen Indonesia	IF	Emerging Markets	-9.6	-10.5	0.85
AberdeenGreaterChina	GCH	Emerging Markets	-9.2	-10.5	0.92
China	CHN	Emerging Markets	-7.6	-10.5	0.95
Aberdeen EM SmCo Opptys	ABE	Emerging Markets	-9.6	-10.4	-7.21
Aberdeen Latin Amer Eq (x)	LAQ	Emerging Markets	-8.4	-10.4	1.06
European Equity Fund Inc (x)	EEA	Emerging Markets	-10.0	-10.3	0.81
Swiss Helvetia	SWZ	Emerging Markets	-9.5	-9.8	0.68
FirstTrAbEmergOp	FEO	Emerging Markets	-8.8	-9.1	0.83



Voya Em Mkts Hi Div Eqty	IHD	Emerging Markets	-8.9	-7.8	1.12
FirstTr Dyn Euro Eq Inc	FDEU	Emerging Markets	-5.2	-5.8	
AbrdnAusEq	IAF	Emerging Markets	-2.3	-4.7	0.86
Franklin Univ (x)	FT	Fixed Income	-12.0	-12.1	0.58
InfLnkOpp&Income	WIW	Fixed Income	-11.5	-11.3	0.25
InfLnkSec&Income	WIA	Fixed Income	-10.8	-11.2	0.30
NeubHgYldStrt	NHS	Fixed Income	-10.9	-10.9	0.65
WstAstGIHilnco	EHI	Fixed Income	-9.2	-9.9	0.68
Prudential GI Sht Dur HY	GHY	Fixed Income	-11.3	-9.8	0.37
BR Credit Alloc Inc	BTZ	Fixed Income	-9.7	-9.6	0.32
InvHighIncTrll (x)	VLT	Fixed Income	-9.6	-9.6	0.58
Ares Dynamic Crdt Alloc	ARDC	Fixed Income	-9.0	-9.6	0.51
Western Asset Hi Inc Opp	HIO	Fixed Income	-9.6	-9.5	0.45
NexPointCreditStrat	NHF	Fixed Income	-4.0	-9.1	0.86
BR Corporate HY	HYT	Fixed Income	-10.2	-9.0	0.60
FirstTrStrHilnc2	FHY	Fixed Income	-11.2	-8.8	0.71
Western Asset Hi Yld D O	HYI	Fixed Income	-9.8	-8.8	0.48
Nuveen Global High Inc	JGH	Fixed Income	-8.6	-8.8	0.91
First Trust Mtge Inc	FMY	Fixed Income	-7.5	-8.6	0.15
Prudential Sht Dur HY	ISD	Fixed Income	-10.0	-8.5	0.37
BR Debt Strategy (x)	DSU	Fixed Income	-7.4	-8.4	0.47
InvDYCrOpp	VTA	Fixed Income	-10.5	-8.2	0.58
Wells Fargo Income Oppty	EAD	Fixed Income	-9.5	-8.1	0.64
MFS Charter (x)	MCR	Fixed Income	-7.9	-8.1	0.46
MFS Multimkt (x)	MMT	Fixed Income	-7.9	-8.1	0.52
Nuveen Multi-Market Inc (x)	JMM	Fixed Income	-6.3	-8.1	0.37
EVLmtDurlncm	EVV	Fixed Income	-9.1	-8.0	0.49
AllianceBernGIHilncm	AWF	Fixed Income	-8.4	-8.0	0.32
BlackRock Mlt-Sctr Inc	BIT	Fixed Income	-8.0	-7.9	0.41
PioneerHilncmTr	PHT	Fixed Income	-9.6	-7.8	0.50
Wells Fargo Multi-Sector	ERC	Fixed Income	-8.4	-7.8	0.31
Nuveen Credit Strat Inc	JQC	Fixed Income	-9.3	-7.6	0.54
Apollo Tactical Income	AIF	Fixed Income	-9.7	-7.5	0.41
Brookfield Real Asst Inc	RA	Fixed Income	-7.1	-7.5	
PionrDivHilncTr	HNW	Fixed Income	-9.2	-7.2	0.56
WstAstHIF II	HIX	Fixed Income	-9.5	-7.1	0.66
InvSnrlncTr (x)	VVR	Fixed Income	-9.9	-7.0	0.48
First Tr Hi Inc Lng/Shrt	FSD	Fixed Income	-8.1	-7.0	0.52
Aberdeen Inc Credit Str	ACP	Fixed Income	-6.4	-7.0	0.83
Voya Prime Rate Trust (x)	PPR	Fixed Income	-9.9	-6.9	0.35
CSAM Income Fd	CIK	Fixed Income	-7.5	-6.9	0.54
BlackRock Ltd Dur Inc	BLW	Fixed Income	-6.3	-6.8	0.40
BlckRk Income (x)	BKT	Fixed Income	-6.1	-6.8	0.07
EVSnlncm (x)	EVF	Fixed Income	-8.6	-6.7	0.48
KKR Income Opportunities	KIO	Fixed Income	-7.0	-6.7	0.68
Blackstone / GSO Strat	BGB	Fixed Income	-7.1	-6.6	0.60
Franklin Ltd Dur Income	FTF	Fixed Income	-4.0	-6.6	
Duff&Ph Util Cor (x)	DUC	Fixed Income	-8.1	-6.5	0.07
New Amer Hi Inc (h)	HYB	Fixed Income	-7.8	-6.4	0.62
MS Income Secs	ICB	Fixed Income	-6.3	-6.4	0.22



BIRck Core Bond	BHK	Fixed Income	-5.5	-6.4	0.15
EtnVncFltRtelncPlus	EFF	Fixed Income	-8.9	-6.3	0.46
Insight Select Income	INSI	Fixed Income	-5.0	-6.3	0.24
Blackstone/GSO LS Cr Inc	BGX	Fixed Income	-6.9	-6.1	0.41
Putnam Mas Int	PIM	Fixed Income	-5.0	-6.0	0.42
Apollo Senior Floating	AFT	Fixed Income	-9.2	-5.8	0.48
MFS Intmdt	MIN	Fixed Income	-5.5	-5.8	-0.06
J Han Income	JHS	Fixed Income	-3.4	-5.6	0.17
FT/Sr Fltg Rte Inc 2	FCT	Fixed Income	-8.3	-5.3	0.42
Barings Glb SD HY Bd	BGH	Fixed Income	-7.5	-5.3	0.58
Deutsche Multi Mkt Inc	KMM	Fixed Income	-4.6	-5.2	0.43
MFS Govt Mkts	MGF	Fixed Income	-5.5	-5.1	0.06
J Han Investors	JHI	Fixed Income	-4.7	-5.0	0.57
Putnam Prem Inc	PPT	Fixed Income	-4.5	-5.0	0.37
Deutsche Strat Inc (x)	KST	Fixed Income	-3.9	-4.9	0.49
THL Credit Senior Loan	TSLF	Fixed Income	-8.2	-4.8	0.48
BR F/R Inc Str	FRA	Fixed Income	-7.3	-4.8	0.38
BR Enhcd Govt	EGF	Fixed Income	-4.0	-4.8	0.03
DoubleLine Inc Sol	DSL	Fixed Income	-6.5	-4.7	0.58
PionrFltRate Tr	PHD	Fixed Income	-7.1	-4.5	0.33
WesternAssetPremBd	WEA	Fixed Income	-4.8	-4.3	0.49
InvescoBond	VBF	Fixed Income	-1.6	-4.3	0.20
Nuveen Bld Amer Bd Oppty	NBD	Fixed Income	-3.4	-4.1	0.14
EtnVncFltRtelnc	EFT	Fixed Income	-7.2	-4.0	0.39
Nuveen Mtge Oppty Term 2	JMT	Fixed Income	-0.6	-3.9	0.20
Nuveen Mtge Oppty Term	JLS	Fixed Income	0.0	-3.6	0.13
WA Corporate Loan	TLI	Fixed Income	-7.6	-3.5	0.41
Nuveen Build Amer Bond	NBB	Fixed Income	-2.5	-3.5	0.00
Dryfs Hi Yld Str (x)	DHF	Fixed Income	-5.1	-3.2	0.77
Guggenheim Tx Mun Mgd Dr	GBAB	Fixed Income	-2.6	-3.1	0.02
Deutsche High Inc Opps	DHG	Fixed Income	-1.5	-3.1	0.49
MFS IntmdHglnc (x)	CIF	Fixed Income		-2.6	0.73
EV SenFIRtTr	EFR	Fixed Income	-4.4	-2.4	0.34
Nuveen Sht Dur Crdt Opp	JSD	Fixed Income	-5.8	-2.3	0.47
BlackRock Floating Rt Inc	BGT	Fixed Income	-3.0	-2.3	0.36
Nuveen Senior Income (x)	NSL	Fixed Income	-4.5	-2.2	0.48
EVHiInc2021	EHT	Fixed Income	-1.6	-2.0	
BlackRock Tax Muni Bd	BBN	Fixed Income	-2.8	-1.8	-0.05
Nuveen HI Dec 2019 Tgt	JHD	Fixed Income	-1.6	-0.8	
Nuveen HI Nov 2021 Tgt	JHB	Fixed Income	-1.6	-0.6	
Nuveen HI Dec 2018 Tgt	JHA	Fixed Income	-1.4	-0.5	
NuvFloatRateIncFd	JFR	Fixed Income	-2.6	-0.2	0.44
Invesco HI 2023 Tgt Term	IHIT	Fixed Income	-2.7	-0.1	
FT/Sr Fltg Rte 2022 TgTr	FIV	Fixed Income	-5.8		
Nuveen Crdt Opps 2022 TT	JCO	Fixed Income	-4.4		
Dreyfus Alcncr GCI 2024	DCF	Fixed Income	-4.0		
NuvFloatRtelncOppty	JRO	Fixed Income	-0.2		0.51
Guggenheim Credit Alloc	GGM	Fixed Income	-2.0		0.45
MFS Special Value	MFV	Fixed Income	-1.0		0.66
GDL Fund	GDL	Global	-16.0	-14.5	0.26



Royce Global Value Trust	RGT	Global	-13.3	-14.5	1.00
Gabelli GI Sm&Mid Cp Val	GGZ	Global	-12.9	-14.5	0.75
AlpineTotalDynDivFun	AOD	Global	-7.7	-10.8	0.99
RENN Fund	RCG	Global		-10.8	-0.19
LazardGlbTotRetInc	LGI	Global	-9.1	-10.7	1.26
Delaware Enh GI Div & In	DEX	Global	-7.8	-9.9	1.07
LazardWorldDiv&IncFd	LOR	Global	-8.4	-9.4	1.36
AlpineGlobDynamicDiv	AGD	Global	-8.8	-8.9	0.96
CloughGlobalOpprty	GLO	Global	-10.2	-8.8	1.04
Wells Fargo GI Div Oppty	EOD	Global	-7.8	-8.2	0.73
CloughGlobalEquity	GLQ	Global	-8.4	-7.4	1.05
VirtusTotalRetFd	ZF	Global	-4.4	-7.2	0.99
CloughGlobDivandInc	GLV	Global	-8.5	-6.8	
EV TxAdvGlbDivInc	ETG	Global	-6.6	-6.1	1.28
Voya Infr Indus & Matr	IDE	Global		-5.6	0.93
Gabelli Multimedia (x)	GGT	Global	-1.5	-4.9	1.45
Calamos GloDynInc	CHW	Global	-0.9	-4.9	1.28
J Han Hdgd Ety & Inc	HEQ	Global	-1.3	-2.6	0.64
Miller/Howard High Inc E	HIE	Global	-0.8		1.35
JHancockTaxAdv GI Sh Yld	HTY	Global	-0.3		0.52
Foxby Corp	FXBY	Growth	-33.2	-31.4	0.78
Equus II (x)	EQS	Growth		-26.3	0.12
GeneralAmer	GAM	Growth	-14.8	-15.7	1.20
Sprott Focus Trust (x)	FUND	Growth	-11.3	-12.0	1.05
Royce Micro-Cap Tr (x)	RMT	Growth	-9.9	-12.0	1.17
Eagle Capital Growth	GRF	Growth	-13.3	-11.9	0.63
Royce Value Trust (x)	RVT	Growth	-7.6	-11.1	1.19
Librty AllStr Gr	ASG	Growth	-2.3	-7.8	1.31
Gabelli Equity Tr (h)	GAB	Growth	-4.3	-2.4	1.41
Boulder Growth & Income	BIF	Growth & Income	-14.8	-16.8	1.09
Adams Diversified Equity	ADX	Growth & Income	-14.4	-15.1	1.08
Tri-Continental (x)	TY	Growth & Income	-9.8	-12.5	0.93
Librty AllStr Eq	USA	Growth & Income	-8.3	-12.5	1.23
Source Capital (x)	SOR	Growth & Income	-9.5	-10.7	0.86
Special Opportunities (x)	SPE	Growth & Income	-10.9	-10.0	0.79
AdvntClymrEnhG&I	LCM	Growth & Income	-9.8	-8.4	0.83
GabelliDiv&IncTr	GDV	Growth & Income	-6.8	-7.4	1.37
CohenStrsCEOppFd	FOF	Growth & Income	-5.1	-6.6	0.67
NuvTaxAdvTRStrat	JTA	Growth & Income	-1.8	-6.4	1.18
JHancockTaxAdvDiv	HTD	Growth & Income	-2.3	-3.2	0.52
EVTxAdvDivIncm	EVT	Growth & Income	-2.5	-3.0	0.99
Dividend & Income	DNI	Income & Preferred Stock	-20.0	-17.4	1.23
Eagle Gr and Inc Opps	EGIF	Income & Preferred Stock	-15.6	-13.5	
Del Div & Inc (x)	DDF	Income & Preferred Stock	-10.0	-9.8	1.07
LMP CapInco	SCD	Income & Preferred Stock	-8.8	-9.4	1.13
Gabelli Go Anywhere Tr	GGO	Income & Preferred Stock		-7.7	
Nuveen TxAdvDivGr	JTD	Income & Preferred Stock	-2.7	-6.4	0.92
TCW Strat Income	TSI	Income & Preferred Stock	-0.7	-6.3	0.22
CalamosStratTot	CSQ	Income & Preferred Stock	-6.3	-5.5	1.18
RiverNorth DL Str Oppty	OPP	Income & Preferred Stock	-7.1	-5.2	



Nuveen Pref & Inc Opp	JPC	Income & Preferred Stock	-3.7	-3.8	0.32
Nuveen Pref & Inc Term	JPI	Income & Preferred Stock	-4.6	-3.2	0.23
CohenStrsLtdDurPref&Inc	LDP	Income & Preferred Stock	-4.0	-2.8	0.30
HnckJPfdInco III	HPS	Income & Preferred Stock	-1.1	-2.2	0.23
RiverNorth Opportunities	RIV	Income & Preferred Stock	-0.1	-2.2	
FirstTrIntDurPref&Inc	FPF	Income & Preferred Stock	-2.0	-1.9	0.21
Virtus Global Div & Inc	ZTR	Income & Preferred Stock		-1.8	0.75
Nuveen Fd	JPS	Income & Preferred Stock	-1.4	-1.4	0.22
Flrty&CrmneDynPfd&Inc	DFP	Income & Preferred Stock		-1.3	0.07
JHanPrefInc	HPI	Income & Preferred Stock	-0.5	-0.3	0.31
Flrty&CrmneTotRet	FLC	Income & Preferred Stock	-0.2	-0.3	0.18
Nuveen Pref & I 2022 Trm	JPT	Income & Preferred Stock	-0.3		
FFlrtyPfdIncomeOp (x)	PFO	Income & Preferred Stock	-1.0		
NuvNJ Qual Muni Inc	NXJ	Muni Bond	-13.9	-12.5	-0.03
InvPAValMulncTr (x)	VPV	Muni Bond	-13.5	-12.1	-0.10
Nuveen CT Qual Muni Inc (x)	NTC	Muni Bond	-15.1	-12.0	-0.02
Nuveen MI Qual Muni Inc (x)	NUM	Muni Bond	-14.0	-11.6	
Nuveen MD Qual Muni Inc (x)	NMY	Muni Bond	-14.0	-11.4	0.00
EVNJMuniIncm	EVJ	Muni Bond	-13.8	-11.4	0.32
EV PA Muni Inc	EVP	Muni Bond	-10.4	-11.4	0.01
Nuveen PA Qual Muni Inc (x)	NQP	Muni Bond	-13.9	-11.3	-0.08
EV MI Muni Inc	EMI	Muni Bond	-13.8	-11.2	
Nuveen NC Qual Muni Inc (x)	NNC	Muni Bond	-13.4	-11.2	-0.05
EVCAMuniIncm	CEV	Muni Bond	-12.6	-10.7	-0.17
Eaton Vance MI Muni Bd	MIW	Muni Bond	-11.9	-10.7	0.05
NeubrgeBrmNY	NBO	Muni Bond	-13.3	-10.5	-0.14
Eaton Vance NJ Muni Bd	EMJ	Muni Bond	-13.7	-10.4	0.27
BlckRk NY Muni Inc Qly	BSE	Muni Bond	-11.6	-10.4	-0.08
AlICAMuniInc	AKP	Muni Bond	-11.4	-10.4	-0.14
EV MA Muni Inc	MMV	Muni Bond	-13.3	-10.3	-1.48
BR MuniNY IntDu	MNE	Muni Bond	-11.4	-10.1	-0.07
Nuveen OH Qual Muni Inc (x)	NUO	Muni Bond	-12.1	-9.8	-0.02
Eaton Vance PA Muni Bd	EIP	Muni Bond	-11.6	-9.6	-0.01
BR MuniYld MI Qly (x)	MIY	Muni Bond	-9.6	-9.6	0.00
EVNYMuniIncm	EVY	Muni Bond	-11.4	-9.5	-0.04
EV OH Muni Inc	EVO	Muni Bond	-13.0	-9.4	0.05
Eaton Vance NY Muni Bd 2	NYH	Muni Bond	-11.2	-9.4	-0.02
Eaton Vance MA Muni Bd	MAB	Muni Bond	-12.9	-9.3	
Nuveen NY AMT/Fr Qual MI	NRK	Muni Bond	-9.9	-9.3	-0.03
BlackRock NY Mun Bd	BQH	Muni Bond	-8.0	-9.0	-0.08
Nuveen AMT-Fr Qlty Mun I	NEA	Muni Bond	-9.4	-8.6	-0.07
Nuveen VA Qlty Mun Inc (x)	NPV	Muni Bond	-11.6	-8.5	-0.13
Del Inv Natl Muni Income (x)	VFL	Muni Bond	-9.9	-8.5	-0.07
Eaton Vance Tx-Ad Bd&Opt	EXD	Muni Bond	-10.5	-8.4	-0.04
BR Mu InDur	MUI	Muni Bond	-10.0	-8.4	-0.13
Nuveen Quality Muni Inc	NAD	Muni Bond	-9.3	-8.2	-0.08
EVMuniBdlI	EIV	Muni Bond	-8.2	-8.0	-0.06
AlIBerNatlMunInc	AFB	Muni Bond	-10.2	-7.9	0.01
Eaton Vance CA Muni Bd 2	EIA	Muni Bond	-9.9	-7.9	-0.18
BR MuniYld PA Qly (x)	MPA	Muni Bond	-8.8	-7.8	-0.10



Eaton Vance NY Muni Bd	ENX	Muni Bond	-8.2	-7.8	-0.04
InvescoValMunInc (x)	IIM	Muni Bond	-8.5	-7.7	-0.16
BR MuniYld NY Qly (x)	MYN	Muni Bond	-9.1	-7.6	-0.18
EVMuniBd	EIM	Muni Bond	-8.4	-7.6	-0.07
Nuveen NY Qual Muni Inc	NAN	Muni Bond	-8.0	-7.4	0.01
InvescoQual Inc (x)	IQI	Muni Bond	-8.1	-7.3	-0.08
Mgd Dur Inv Grade Muni	MZF	Muni Bond	-10.2	-7.1	-0.04
PioneerMunHilcmT	MHI	Muni Bond	-7.9	-7.0	0.05
Dreyfus Muni Bd Infra	DMB	Muni Bond	-9.2	-6.9	0.02
Eaton Vance OH Muni Bd	EIO	Muni Bond	-8.8	-6.8	-0.19
BR MH NJ Qly (x)	MUJ	Muni Bond	-7.8	-6.7	-0.02
MFS Inv Gr	CXH	Muni Bond	-8.2	-6.4	-0.12
Nuveen TX Qual Mun Inc (x)	NTX	Muni Bond	-6.8	-6.4	0.07
Nuveen AMT-Fr Mu CI	NVG	Muni Bond	-6.8	-6.4	-0.03
InvescoMuTr (x)	VKQ	Muni Bond	-7.4	-6.3	-0.07
InvTrInvGrNYMu (x)	VTN	Muni Bond	-5.6	-6.3	-0.12
DTF Tax-Free Income (x)	DTF	Muni Bond	-10.4	-6.2	0.22
Nuveen Int Dur Qlty Mun	NIQ	Muni Bond	-7.6	-6.2	-0.13
NeubrgrBrmCA	NBW	Muni Bond	-10.3	-6.1	0.02
BR MH CA Qly Fd Inc (x)	MUC	Muni Bond	-8.4	-6.1	-0.07
BR MH NY Qly (x)	MHN	Muni Bond	-9.7	-6.0	-0.02
MFS CA Muni	CCA	Muni Bond	-8.4	-6.0	0.71
Western Asset Mun Hi Inc	MHF	Muni Bond	-6.9	-6.0	0.12
Nuveen Sel TF 2	NXQ	Muni Bond	-6.1	-6.0	0.04
InvAdvMulncTrII (x)	VKI	Muni Bond	-6.2	-5.9	-0.14
BlackRock MD Mun Bd	BZM	Muni Bond	-11.0	-5.8	
Putnam Muni Opp (x)	PMO	Muni Bond	-7.6	-5.7	-0.08
InvCaValMulncTr (x)	VCV	Muni Bond	-6.1	-5.7	-0.12
Nuv Enh Muni Cr Inc	NZF	Muni Bond	-5.5	-5.7	-0.04
WstAstMuniPrtncs (x)	MNP	Muni Bond	-8.0	-5.6	0.06
EVCAMuniBd	EVM	Muni Bond	-6.3	-5.6	-1.47
Nuveen Sel TF 3	NXR	Muni Bond	-3.5	-5.6	0.06
Putnam Mgd Inc (x)	PMM	Muni Bond	-7.1	-5.5	-0.04
BlckRk Muni Inc Qly	BYM	Muni Bond	-7.0	-5.4	-0.08
InvTrInvGrMu (x)	VGM	Muni Bond	-5.8	-5.4	-0.09
BlackRock CA Mun	BFZ	Muni Bond	-9.6	-5.3	-0.09
BlckRk Inv Q Mun (x)	BKN	Muni Bond	-6.1	-5.2	-0.06
Nuveen Sel TF	NXP	Muni Bond	-5.5	-5.2	0.06
NuveenCAQtyMulnc	NAC	Muni Bond	-8.7	-5.1	-0.10
BR MuniYld Qlty2 (x)	MQT	Muni Bond	-6.0	-5.1	-0.05
NuvGA Qual Muni Inc	NKG	Muni Bond	-8.4	-4.9	-0.12
Western Asset Int Muni	SBI	Muni Bond	-8.1	-4.9	-0.10
FedPremMulnc	FMN	Muni Bond	-7.4	-4.7	-0.04
BlackRock NJ Muni Bond	BLJ	Muni Bond	-6.9	-4.7	-0.06
BlckRk L-T Muni Adv	BTA	Muni Bond	-4.8	-4.7	-0.05
PioneerHilncAdv	MAV	Muni Bond	-4.5	-4.4	0.07
Nuveen NJ Muni Value	NJV	Muni Bond	-9.3	-4.3	-0.05
BR MuniYld CA Qly (x)	MCA	Muni Bond	-6.9	-4.3	-0.15
BlckRk Muni Inc Inv Qly	BAF	Muni Bond	-4.1	-4.2	-0.07
InvescoMuOppTr (x)	VMO	Muni Bond	-8.2	-4.1	-0.06



Nuveen MA Qual Muni Inc (x)	NMT	Muni Bond	-3.2	-4.1	-0.04
MFS Muni Inco	MFM	Muni Bond	-6.7	-4.0	-0.03
Nuveen Enh Muni Val	NEV	Muni Bond	-5.5	-4.0	0.05
BlackRock Muni 2030 Tgt	BTT	Muni Bond	-8.2	-3.9	-0.05
Nuveen NY Muni Value 2	NYV	Muni Bond	-7.5	-3.9	-0.07
EVMuniIncm	EVN	Muni Bond	-7.5	-3.8	-0.04
BlackRock Mun Bd	BBK	Muni Bond	-7.2	-3.8	-0.09
Dreyfus Income	DMF	Muni Bond	-4.3	-3.5	-0.04
Nuveen Sel Mat	NIM	Muni Bond	-5.2	-3.3	-0.05
BlackRock NY Mun II	BFY	Muni Bond	-4.7	-3.3	-0.10
MFS HgIncMuniTr	CXE	Muni Bond	-2.4	-3.3	0.07
Nuveen Int Dur Mun Term	NID	Muni Bond	-5.7	-3.1	-0.12
BlckRk Str Muni	BSD	Muni Bond	-5.5	-3.0	-0.15
BR MH Qly (x)	MUS	Muni Bond	-3.8	-3.0	
MFS HgYldMuniTr	CMU	Muni Bond	-4.5	-2.9	-0.09
Nuveen NY Sel Tx-Free	NXN	Muni Bond	-4.1	-2.8	-0.13
BR MH Qly 2	MUE	Muni Bond	-0.9	-2.8	-0.11
BR MuniYield Qlty (x)	MQY	Muni Bond	-4.6	-2.5	-0.01
EVMuniInc2028	ETX	Muni Bond	-0.8	-2.5	-0.28
Nuveen CA AMT-F Qual MI	NKX	Muni Bond	-3.2	-2.3	-0.14
Del MN II (x)	VMM	Muni Bond	-7.9	-2.2	-0.03
Nuveen Muni Val	NUV	Muni Bond	-1.7	-2.1	-0.03
BR MuniYld Invest Qly (x)	MFT	Muni Bond	-3.4	-1.8	-0.09
BR MuniYld Qly 3 (x)	MYI	Muni Bond	-4.7	-1.5	-0.08
BR MuniYld CA (x)	MYC	Muni Bond	-4.6	-1.4	-0.19
BR MuniHoldng2 (x)	MUH	Muni Bond	-5.4	-1.3	-0.03
BlackRock NY Mun	BNY	Muni Bond	-4.4	-1.3	-0.13
BlackRock Muni	BFK	Muni Bond	-2.6	-1.3	-0.04
NeubrgrBrm	NBH	Muni Bond	-4.3	-1.2	-0.09
Deutsche Strat Mun	KSM	Muni Bond	-6.1	-0.8	0.03
Nuveen AZ Qual Muni Inc (x)	NAZ	Muni Bond	-3.1	-0.6	-0.08
Nuveen NY Val	NNY	Muni Bond	-4.6	-0.5	-0.03
BlackRock NJ Muni Income	BNJ	Muni Bond	-3.3	-0.5	0.16
BR MuniEnhanced (x)	MEN	Muni Bond	-2.6	-0.5	-0.06
BR MuniYield Fd (x)	MYD	Muni Bond	-2.4	-0.4	-0.01
BlckRk Muni 2018	BPK	Muni Bond	-1.6	-0.4	-0.07
BlckRk NY 2018	BLH	Muni Bond	-1.1	-0.4	0.05
Del CO Muni Inc (x)	VCF	Muni Bond		-0.4	0.03
BlackRock Muni II	BLE	Muni Bond	-4.0	-0.3	-0.03
Nuveen CA Val	NCA	Muni Bond	-2.8	-0.1	-0.04
BlckRk FL Muni 20	BFO	Muni Bond	-2.6	-0.1	-0.04
BR MuniHoldings Qly (x)	MFL	Muni Bond	-0.5	-0.1	-0.18
BR MuniHoldngs (x)	MHD	Muni Bond	-2.8		-0.02
BlackRock Muni 2020	BKK	Muni Bond	-2.6		-0.05
BR MuniYld NJ (x)	MYJ	Muni Bond	-1.3		0.05
Nuveen CA Sel Tx-Free	NXC	Muni Bond	-3.0		0.11
BlckRk CA 2018	BJZ	Muni Bond	-2.0		-0.09
BR MuniVest Fd (x)	MVF	Muni Bond	-0.5		-0.02
NuvMuniHilncOpp	NMZ	Muni Bond	-0.1		-0.07
NuvMuni2021TgtTerm	NHA	Muni Bond	-3.0		



BlckRk Mun Inc Inv	BBF	Muni Bond	-1.8		-0.10
Nuveen PA Muni Value	NPN	Muni Bond	-2.0		-0.10
Deutsche Muni Inc (x)	KTF	Muni Bond	-5.7		-0.09
Westn Asst Mu Def Opp Tr	MTT	Muni Bond	-1.4		-0.04
Nuveen Minn Qual Mun Inc (x)	NMS	Muni Bond	-2.7		-0.20
Korea	KF	Pacific Ex Japan	-11.5	-11.0	0.59
ThaiFd	TTF	Pacific Ex Japan	-2.1	-10.6	0.73
Asia Tigers	GRR	Pacific Ex Japan	-9.3	-9.5	0.83
AsiaPacFd	APB	Pacific Ex Japan	-4.9	-8.1	0.86
Firsthand Technology Val	SVVC	Sector Equities		-58.6	1.03
RMRRealEstInc	RIF	Sector Equities	-18.0	-17.9	0.81
CBRE ClnGlbRIEst	IGR	Sector Equities	-11.9	-12.3	0.79
ASA Gold & Prec Met Ltd (v)	ASA	Sector Equities	-14.1	-12.0	-0.18
Gabelli Healthcare (h)	GRX	Sector Equities	-12.2	-12.0	0.90
AlpineGlbPremProp	AWP	Sector Equities	-9.2	-12.0	1.21
Voya Asia Pac Hi Div Eq	IAE	Sector Equities	-10.8	-10.4	0.97
GI NFJ Divmt&PremStr	NFJ	Sector Equities	-11.5	-9.7	0.72
Principal Real Est Inc	PGZ	Sector Equities	-12.9	-9.5	0.51
CohenStrsREITPref	RNP	Sector Equities	-6.7	-9.4	0.59
Nuveen RI Asst Inc & Gro	JRI	Sector Equities	-9.2	-9.2	1.01
ChnStrGblncBldr	INB	Sector Equities	-8.1	-8.7	0.94
Voya GI Adv & Prem Opp	IGA	Sector Equities	-6.5	-8.7	
BlackRock Enh Gbl Div	BOE	Sector Equities	-5.4	-8.6	1.04
Tekla Healthcare Opps	THQ	Sector Equities	-9.1	-8.3	1.08
BlackRock Enh Intl Div	BGY	Sector Equities	-7.6	-8.3	1.04
BlackRock Eq Enh Div	BDJ	Sector Equities	-7.3	-8.2	0.84
First Tr Enhanced Eq	FFA	Sector Equities	-1.9	-8.1	0.94
NubrgrRIEstSec	NRO	Sector Equities	-3.8	-8.0	0.74
Voya GI Eq Div & Prem Op	IGD	Sector Equities	-5.9	-7.2	1.01
BlackRock Sci&Tech Trust	BST	Sector Equities	-3.8	-7.2	0.96
BR Enh C&I	CII	Sector Equities	-4.7	-6.9	1.07
EVRskMnDvsEqInc	ETJ	Sector Equities	-4.5	-6.8	0.56
Cohen&SteersQualInc	RQI	Sector Equities	-6.9	-6.7	0.64
Cohen&Steers TotRet (x)	RFI	Sector Equities	-4.8	-6.5	0.57
Tekla World Healthcare	THW	Sector Equities	-7.2	-6.1	
Madison CovCall & Eq Str	MCN	Sector Equities	-6.7	-6.1	0.77
Nuv Dow 30 Dyn Overwrite	DIAX	Sector Equities	-1.1	-5.7	0.86
Centrl Fd Canada	CEF	Sector Equities	-1.6	-5.6	-0.25
EtnVncEqtyInc	EOI	Sector Equities	-3.9	-5.5	0.98
MdsnStrSectPrem	MSP	Sector Equities	-5.2	-4.5	0.61
NuvCorEqAlpha	JCE	Sector Equities	-1.1	-4.5	1.02
EvTxMnDvsEqInc	ETY	Sector Equities	-1.3	-4.2	1.01
NuveenDiversDiv&Inc	JDD	Sector Equities	-3.2	-3.9	0.89
EtnVncEqtyIncoll	EOS	Sector Equities	-3.5	-3.7	0.97
EVTxMnGblDvEqInc	EXG	Sector Equities	-1.1	-3.3	1.12
Tekla Health Inv	HQH	Sector Equities	-6.7	-3.1	1.73
Tekla Life Sciences Inv	HQL	Sector Equities	-1.5	-2.2	1.68
NuvSP500BuyIncFd	BXMX	Sector Equities	-0.7	-2.2	0.59
Nuv Real Est	JRS	Sector Equities	-0.8	-2.0	0.83
NuvS&P500DynOvFd	SPXX	Sector Equities		-2.0	0.76



GAMCOIGold&NatRes	GGN	Sector Equities	-4.6	-0.7	
First Tr Specialty Fn	FGB	Sector Equities	-2.7		0.79
BrndywnGLB Glb Inc Oppts	BWG	World Income	-13.8	-13.0	0.89
WstAstEmergDebt	EMD	World Income	-11.6	-12.0	0.76
Templeton Em Inc	TEI	World Income	-12.4	-11.3	0.61
Templtn Gbl Inc	GIM	World Income	-10.9	-11.0	0.61
MS EmMktDomDebt	EDD	World Income	-13.5	-10.8	0.92
Ms EmMktDebtFd (x)	MSD	World Income	-9.2	-10.6	0.49
Abrdn AP IncFd (x)	FAX	World Income	-10.6	-8.9	0.51
First Tr/Ab Gbl Inc	FAM	World Income	-10.0	-8.8	0.59
EtnVncStDivInc	EVG	World Income	-5.9	-7.7	
WstAstVarRte	GFY	World Income	-5.3	-6.7	0.37
Western Asset GI Cr D Op	GDO	World Income	-5.7	-6.4	0.45
Aberdeen Global Income (x)	FCO	World Income	-4.0	-5.4	0.60
PIMCO Dyn Crd & Mrt Inc	PCI	World Income	-4.8	-3.1	0.40
Virtus GI MSec Inc	VGI	World Income		-1.3	0.66
BlackRock 2022 GI Inc Op	BGIO	World Income	-1.9		
Nuveen EM Dbt 2022 Tg Tr	JEMD	World Income	-4.5		
Cushing Energy Income	SRF		-13.2	-14.6	1.70
Adams Natural Resources	PEO		-14.7	-14.4	1.10
BlackRock Res & Comm	BCX		-8.0	-12.3	0.87
Duff&Ph Gbl Util Inc Fd	DPG		-11.7	-11.2	1.08
MacquarieGblInfraTR	MGU		-6.9	-11.0	1.07
CushingMLPTotRet	SRV		-6.6	-10.9	1.49
Brookfield GI Lsd Infr	INF		-12.6	-10.4	1.53
Gab GI Util & Inc (h)	GLU		-5.0	-10.0	0.92
BlackRock Energy & Res	BGR		-10.3	-9.4	0.99
ChnStrInfr	UTF		-6.0	-9.1	0.86
Salient Midstream & MLP	SMM		-8.0	-8.4	1.54
Neuberger Berman MLP Inc	NML		-3.7	-8.3	1.20
Tortoise Pipelne & Enrgy	TTP		-6.7	-8.2	1.48
ClearBridge Amer Engy ML	CBA		-4.4	-7.9	1.60
Tortoise Pwr & Enrgy Infr	TPZ		-5.9	-7.8	1.19
KayneMidstream/Energy	KMF		-6.9	-7.2	1.94
Cushing Renaissance	SZC		-2.4	-7.1	1.28
KayneEngyTotRtn	KYE		-8.0	-5.9	1.78
Macquarie/FirstTr GI	MFD		-6.3	-5.8	0.90
Goldman Sachs MLP IncOpp	GMZ		-5.4	-5.3	1.56
FirstTrEnergyInfra	FIF		-4.7	-4.7	1.00
Kayne Anderson Enrgy Dev	KED		-3.3	-3.7	1.27
Voya Nat Res Eq Inc	IRR		-3.2	-3.5	0.68
ClearBridge Energy MLP	CEM		-1.3	-3.3	1.27
Goldman Sachs MLP&En Ren	GER		-5.1	-3.1	1.53
ReavesUtilityIncome	UTG		-7.4	-1.9	
BlackRock Utl Inf & Pwr	BUI			-0.9	0.77
Wells Fargo Ut & Hi Inc	ERH			-0.8	0.56
Tortoise MLP	NTG		-1.4		0.79
Nuv AC Engy MLP Opps	JMLP		-0.9		1.58
Nuveen Engy MLP Tot Rtn	JMF		-2.1		1.18
FiducClayMLPOppty	FMO		-0.1		1.15
Tortoise Energy Ind	NDP		-1.6		1.46



	Discount 12/31/2017	52 Wk Avg Discount	Beta
AVERAGE	7.3%	7.4%	0.49
MEDIAN	7.2%	6.9%	0.48
STANDARD DEVIATION	4.7%	5.2%	0.51
COUNT	431	416	406
MIN	0.0%	0.1%	2.27
MAX	35.6%	58.6%	-0.28