MFO Premium

Webinar Briefing
5 January 2021

Morning Session
Guest Lynn Bolin

Agenda

- Lynn Bolin to discuss how he uses MultiSearch tool for fund analysis
  - Maintains risk segmented "buckets" of candidate funds
  - Lynn writes often for MFO and Seeking Alpha
- Review and demo newest metrics, tools, features
- Planned improvements
- Origin and motivation behind MFO Premium search tools
- Site page summaries, underlying database, methodology, and limitations

Highlight unique insights that MFO search tools provide individual investors and financial advisers … and the attendant benefits to themselves and their clients

Zoom Web Conferencing	Session Recorded … Will Post
Host Cam, Participants Voice Only	Questions via Chat
VoIP & Phone Enabled	Participants on Mute Initially

Charles Bolin

Following
(2,064 followers)

I am an individual investor a few years from retirement, an engineer and have an MBA. I worked overseas the majority of the past 10 years and filled most of my travel and spare time reading about investing, finance, economics and forecasting. I vary my asset allocation according to the business cycle.

80 Articles | 3 Author's Picks | 566 Comments | 123 Likes | 2,058 Followers | 49 Following

All (80)
Editors' Picks (2)

Filter By Ticker

ACWV (1) BERIX (1) BTAL (1) DIA (1) DIVO (1) EPS (1) EUSA (1) FFRHX (1) FWRLX (1) IBUY (1) ITOT (1) IVV (1)

Articles

Amplify CWP Enhanced Dividend Income ETF With 5% Distribution

Fri, Jan. 1 • DIVO • 23 Comments

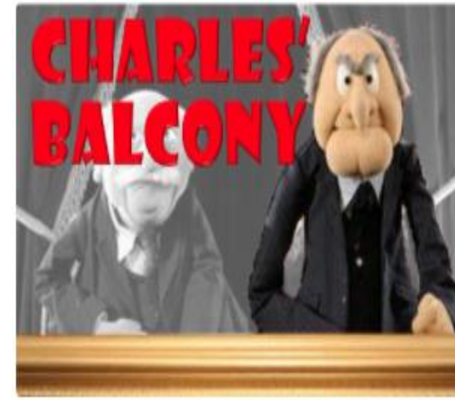
Risk-Adjusted Performance Of U.S. Domestic Stock Funds

Dec. 15, 2020 • CDC, DIVO, EQWL • 6 Comments

Best Funds To Own In 2021

Dec. 13, 2020 • CDC, CRAZX, DIAL • 40 Comments

Building Downside Protection For Retirees

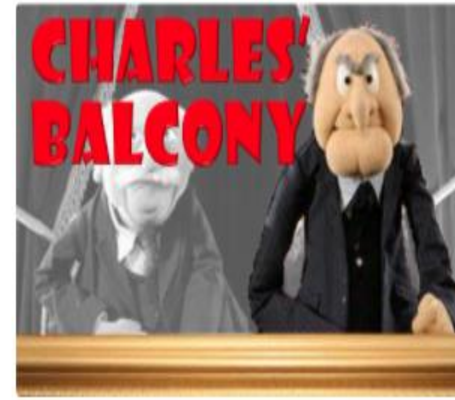


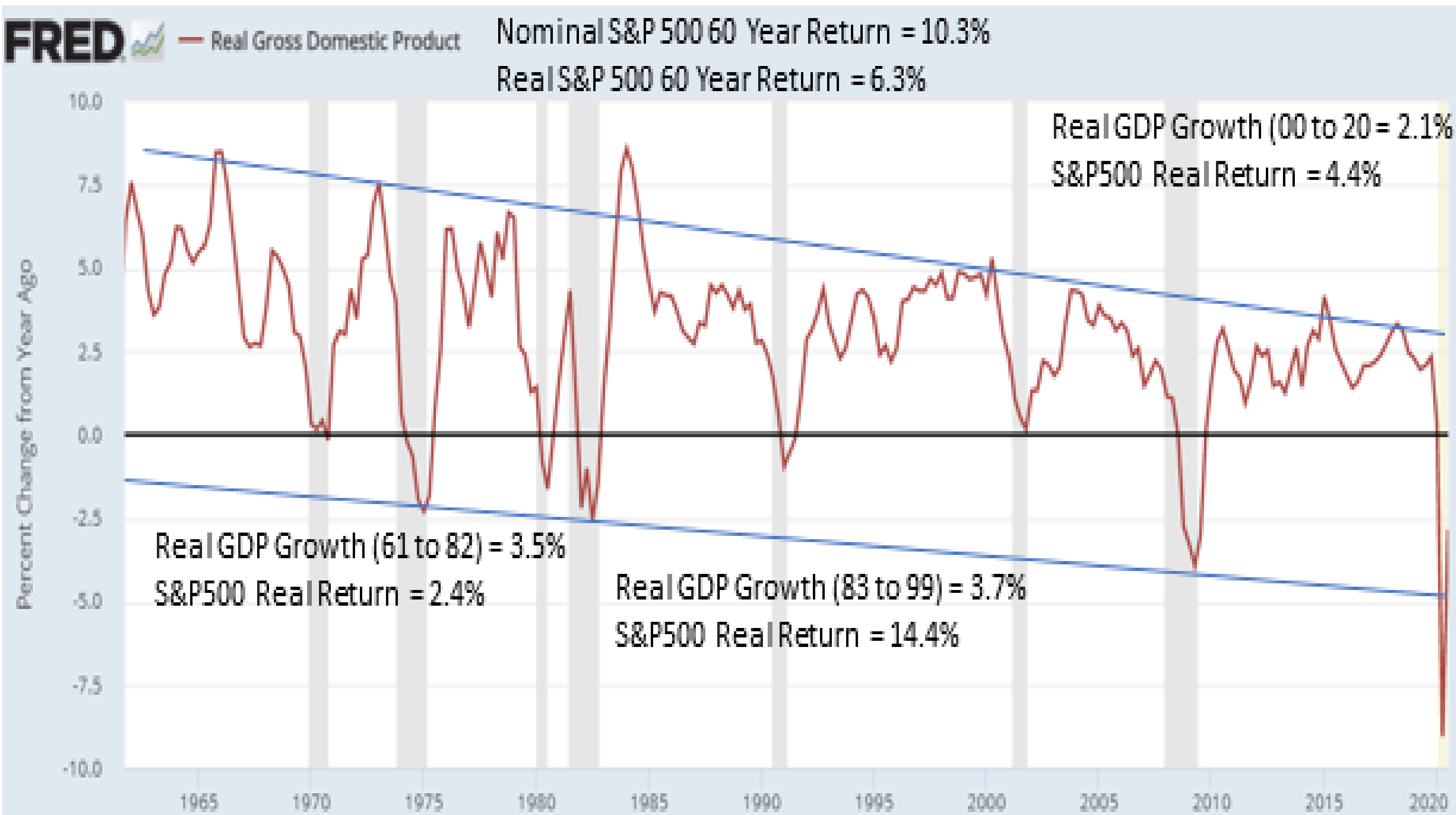
This presentation describes how I use Mutual Fund Observer Multisearch for fund analysis. Results are posted monthly in Seeking Alpha, but December results are glossed over in this presentation.

1. Philosophy
2. Watchlists of Best Funds
3. Two Slides for the Quants
4. Personal Ranking System (Conservative, Retirement)
5. December Results (Four Views of the Same Data)

1. Philosophy

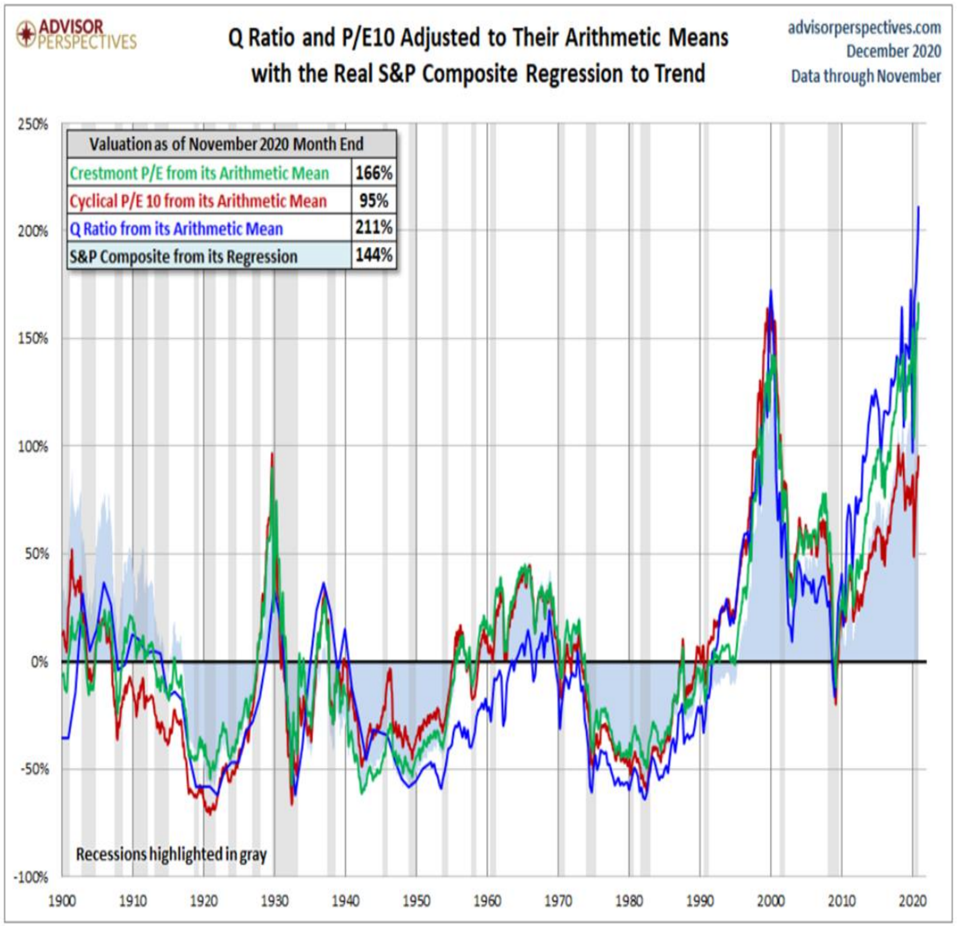
Mutual Fund Observer





Books: Forecasting Financial and Economic Cycles, Niemira, Klein

Mutual Fund Observer



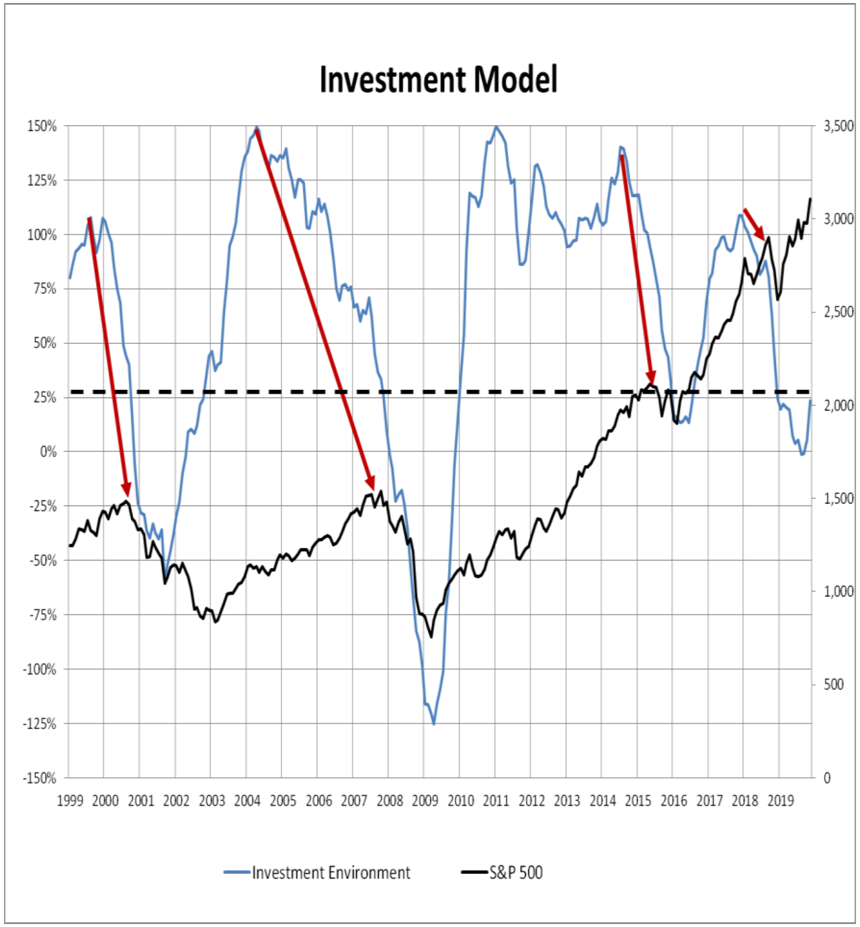
Buy Low Sell High

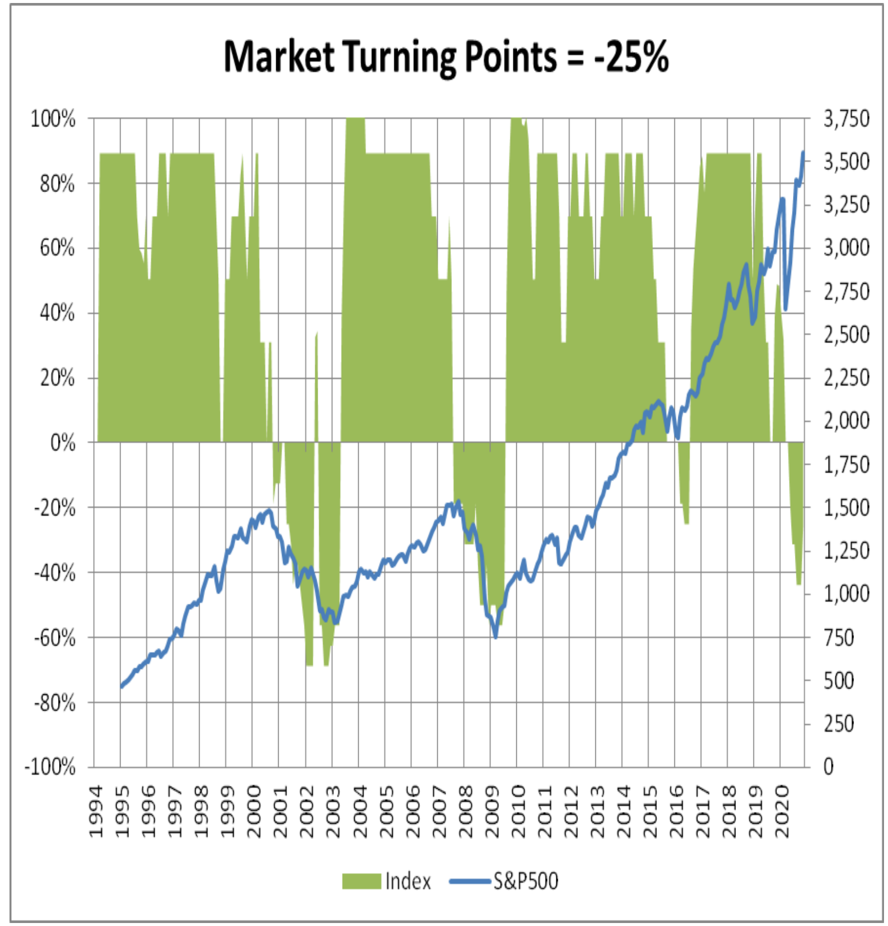
Books: Probable Outcomes and Unexpected Returns by Ed Easterling

Investment Model

Return Model

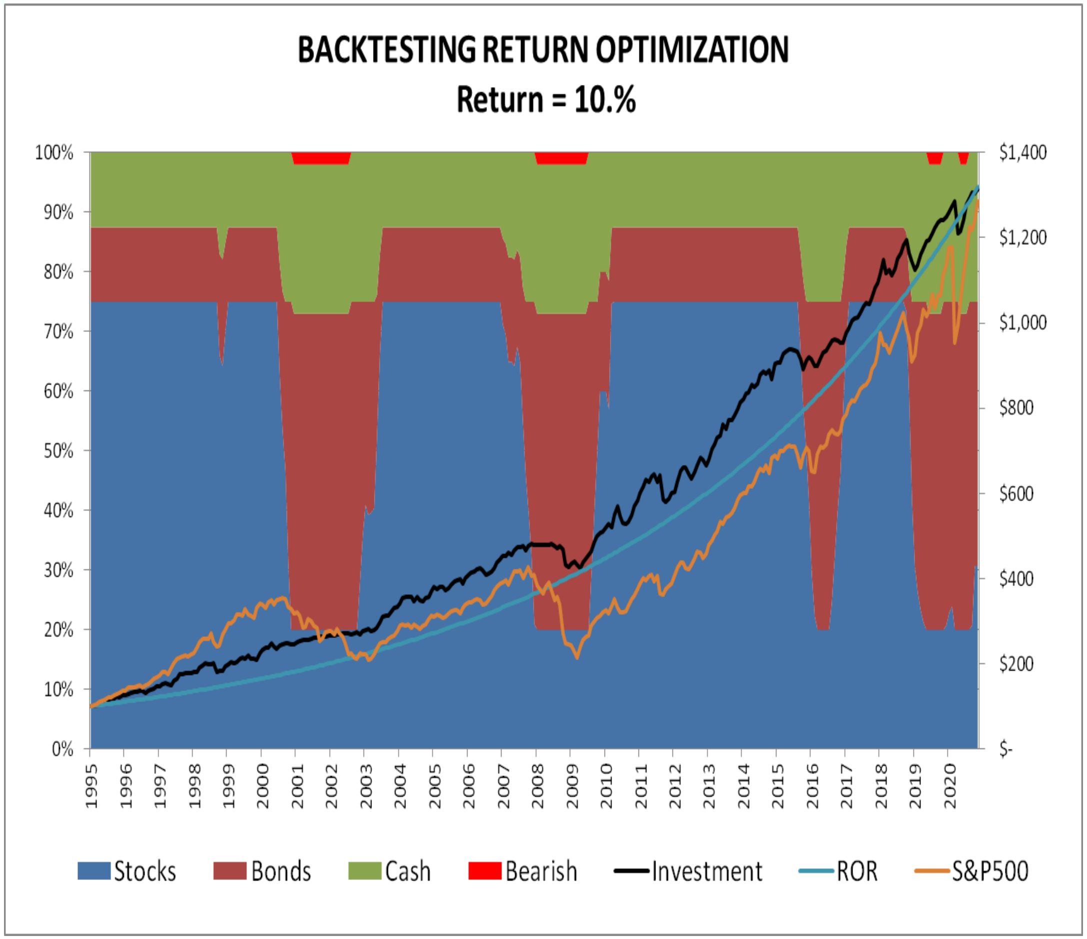
Indicators





Books: Nowcasting The Business Cycle by James Picerno

Minimizing losses requires future lower returns



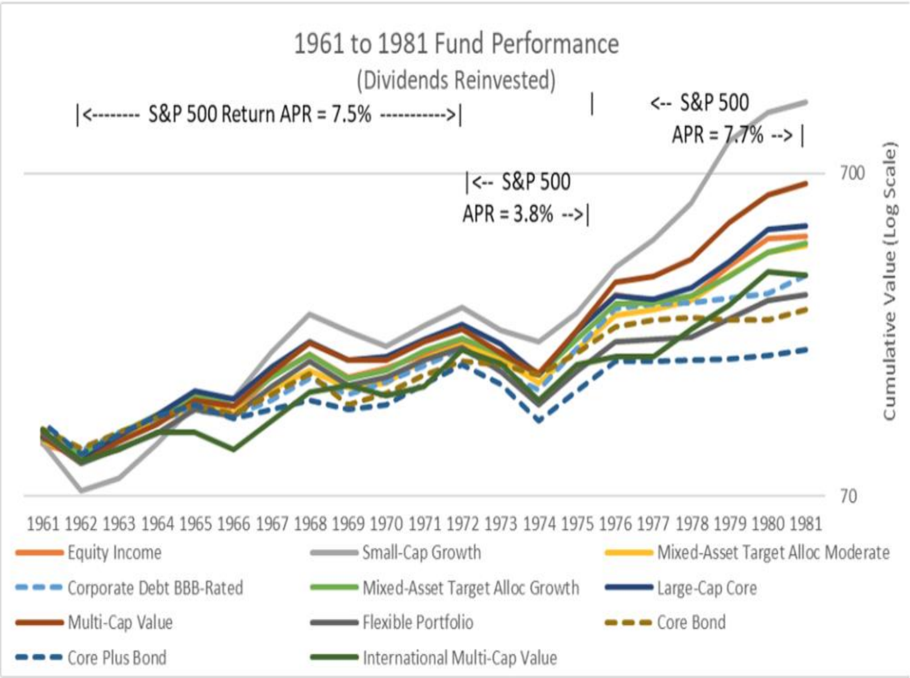
Books: Conquering The Divide by Cornehlsen and Carr

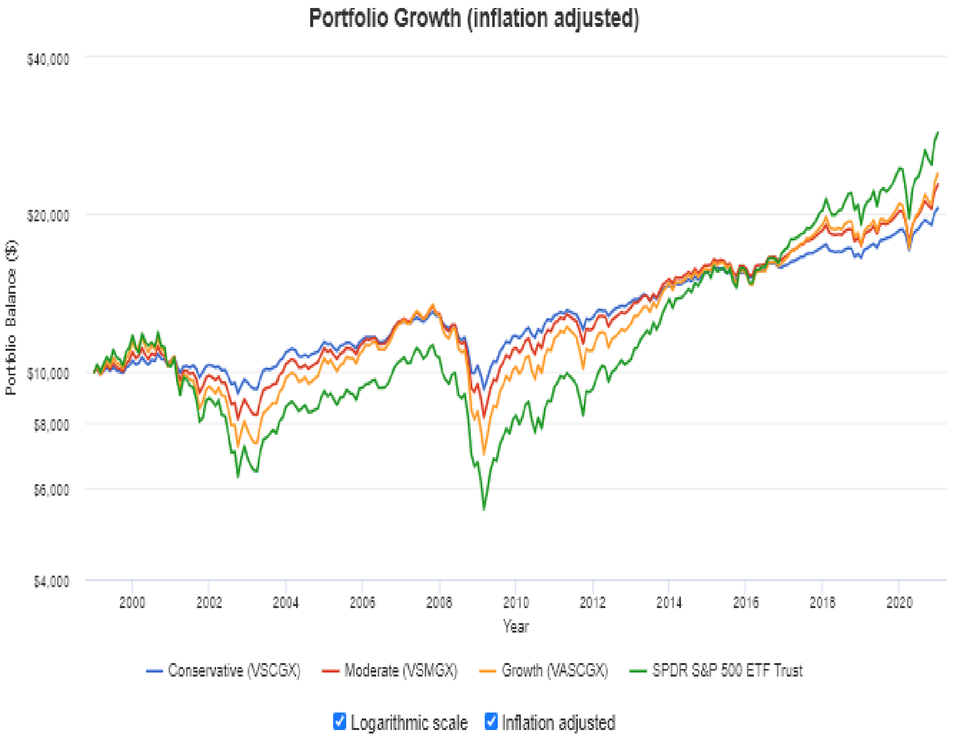
First and last 20 year periods: Offense Sells Tickets but Defense Wins Games

Less Scary Ride

Bonds still have protection in rising rate markets

Ed Easterling: Time to Row Instead of Sail





Books: The Era of Uncertainty by Trahan and Krantz

2. Watchlists of Best Funds

Mutual Fund Observer

Purpose of the Ranking System 15 Buckets

1) Time withdrawals to risk (Buckets 1- 4)
2) Compare risk categories as a group
3) Look for trends.

Lipper_Category_Data	Description
Traditional Buckets	
Bucket 1: Safety	Short term high grade bond funds
Bucket 2: 1 to 2 Years	Riskier bond funds and conservative mixed asset funds
Bucket 3: 3 to 4 Years	Moderate mixed asset funds and risky bond funds
Bucket 4: 4 to 5 Years	Equity funds for Buy and Hold
Specialty Buckets	
Sectors	Equity funds for Rotation
Municipal Bonds	Municipal bond funds
Income with Safety	Mixed Asset Income, moderately risky bonds excl HY
Inflation Resistant	Inflation Protected Bonds, gold and real assets
Global & International Bonds	Separated because of dollar impacts
Global & International Equity	Separated because of dollar impacts
Alternatives	Non traditional funds for safety and/or income.
Trending Buckets (Applicable Trends to Above Buckets)	
Trending	Usually highlights one of the above
Crossing	Trending up but just crossed SMA10
Bottom	Trending up but below SMA10
Downward	Potential sell candidate

Books: Investing with the Trend by Gregory Morris

Data Lists: Universe of 552 Pre-Selected Funds

Fund Selection Criteria	
Assets under Management	Availability
Age	MFO Risk and MaxDD
MFO Rank	Martin Ratio
Great Owls, Positive Profiles	Composite Rating
Expenses, Loads, Minimum	Fund Family Rating
Yield	MFO Articles and Readers

Watch Lists	Count
Retirement	100
Mixed Assets	83
Traditional Bonds	100
Other Bonds	54
Alternatives	36
Equity	93
Global Equity	98
Sector	88
Total	552
Lipper Categories	121
Assets	$ 9,838,239
Top 10 Families	353
Other Families	92
ETFs	218
Mutual Funds	320
Closed End Funds	14

Funds tracked reflect availability and interests:

Mixed-Asset, Flexible Portfolio and income, Multi-Sector, Multi-Strategy

Lipper Category	Count	AUSM ($M)	$M/Fund
Emerging Markets	15	$ 183,515	$ 12,234
Mixed-Asset Target Alloc Moderate	14	$ 62,074	$ 4,434
Mixed-Asset Target Alloc Growth	13	$ 379,604	$ 29,200
Flexible Portfolio	13	$ 32,035	$ 2,464
Equity Income	13	$ 171,937	$ 13,226
Core Bond	12	$ 819,843	$ 68,320
Mixed-Asset Target Alloc Consv	12	$ 84,500	$ 7,042
Multi-Cap Core	11	$ 2,181,959	$ 198,360
Science & Technology	11	$ 141,050	$ 12,823
Flexible Income	11	$ 29,386	$ 2,671
Large-Cap Growth	10	$ 421,074	$ 42,107
Large-Cap Core	10	$ 112,373	$ 11,237
Real Estate	9	$ 81,775	$ 9,086
Large-Cap Value	8	$ 96,774	$ 12,097
International Multi-Cap Core	8	$ 921,565	$ 115,196
Inflation Protected Bond	8	$ 87,320	$ 10,915
Multi-Sector Income	8	$ 35,569	$ 4,446
International Income	7	$ 344,004	$ 49,143
Mid-Cap Core	7	$ 190,231	$ 27,176

3. Two Slides for the Quants

Slide for Quants - Beware

Behind the Curtains – Building A Ranking System

MFO – July Issue

Calculations

Data

AD	AE	AF	AG	AH	AI	EF	EG
		Return	Return	Return	Return		
=MATCH(AD5,6:6,0)	220			139	145		
AssetUniverse	FundFamily	Return Fact	Average	APR	MartinRatio		
_AssetUniverse	_FundFa	_Return F	_Average	_APR	_MartinR	Symbo	Name
=INDIRECT(ADDRESS(ROW($EF8),AD$4))	...enhei	0.83	0.7	9.9	25.0	GIBIX	Guggenheim Total Return Bond Inst
Exchange Traded Funds	Columbia Tl	0.79	0.6	11.0	7.8	DIAL	Columbia Diversified Fixed Income Allocation ETF
Mutual Funds	Vanguard	0.79	0.6	15.6	4.7	VEMBX	Vanguard Emerging Markets Bond Inv
Mutual Funds	PIMCO	0.66	0.6	6.4	25.0	PTRIX	PIMCO Mortgage-Backed Securities Inst
Mutual Funds	Vanguard	0.83	0.7	10.8	11.8	VFICX	Vanguard Intermediate-Term Investment-Grade Inv
Mutual Funds	PIMCO	0.68	0.6	6.7	25.0	PDMIX	PIMCO GNMA and Government Securities Inst
Exchange Traded Funds	Vanguard	0.77	0.6	12.1	6.8	VCIT	Vanguard Intermediate-Term Corporate Bond Index E
Exchange Traded Funds	First Trust	0.83	0.7	9.9	24.2	FIXD	First Trust TCW Opportunistic Fixed Income ETF
Exchange Traded Funds	Janus Henc	0.68	0.6	7.0	21.9	JMBS	Janus Henderson Mortgage-Backed Securities ETF

=PERCENTRANK(AG:AG,AG10,2)

=IF(AO10>15,0,AVERAGE(IFERROR(PERCENTRANK(Clipped_MartinRatio,AI10,2)*1,""),IFERROR(PERCENTRANK(Clipped_APR,AH10,2)*1,"")))

Books: Fundamentals of Forecasting Using Excel by Lawrence, et all

Clipped_MartinRatio and Clipped_APR are Named Ranges

Slide for Quants - Beware

Automating the System

1) Named Ranges
2) Indexes

3) Create Lookup Index

2) Count Ordering

1) Sort By Rank

Family Univer:	Top Objective	Funds_Bucket_Ranke	Top_Buck	Bucket	Ranl	Rank
Other	Multi-Sector Income	1 Income	1	Income	100	0.83
ETF		2 Income	2	Income	100	0.82
Vanguarc	Emerging Mrkts Hard Curre	1 Global Bond	1	Global Bond	100	0.81
Other	U.S. Mortgage	3 Income	3	Income	99	0.81
Vanguarc	Core Bond	1 Bucket #1	1	Bucket #1	99	0.81
Other	GNMA	2 Bucket #1	2	Bucket #1	99	0.80
ETF	Corporate Debt BBB-Rate	4 Income	4	Income	99	0.80
ETF		5 Income	5	Income	99	0.79
ETF		6 Income	6	Income	99	0.79
Other	Short-Intmdt Investment	3 Bucket #1	3	Bucket #1	98	0.78
Vanguarc	International Income	2 Global Bond	2	Global Bond	98	0.78
Fidelity		3 Global Bond	3	Global Bond	98	0.78
ETF		4 Global Bond	4	Global Bond	98	0.77
ETF	Municipal General & Insur	1 Municipal Bond	1	Municipal Bo	98	0.77
Other	Alternative Multi-Strategy	1 Alternatives	1	Alternatives	97	0.77

=IF(ISNUMBER(N7),N7&" "&O7,"")

=IF(COUNTIFS(O$6:O8,O8)<=7,COUNTIFS(O$6:O8,O8),"")

4. Personal Ranking System (Conservative, Retirement)

Equal Weighted Factors

My Ranking System is Oriented Toward People in or Near Retirement

Sentiment	Risk On/Off Based on Category Bull and Bear Market Performance
Return:	MartinRatio, APR%/yr
Risk:	AlarmRating, UlcerIndex, TA Risk, Average Category Down Cycle, SMA10
Momentum:	Trend 3 mo, 3Month Return, Fund Flow%, SMA10 (for clipping outliers)
Quality:	Alpha, MFORank, FamilyRating, ERRating, Ageyr, Composite MFO Rating, Valuation, Kitchen Sink
Income:	Yield%/yr
Consistency:	Percent Yearly (10+ Years) Return Ratings are Average or Better

Resources: Mutual Fund Observer Definitions

5. December Results
View One: Original Method – By Bucket and Lipper Category
Better View of General Trends

December Results By Lipper Category and Bucket

Lipper_Category_Data	Rank	Ulcer	MaxDD	Martin	Yield	RTN 3Mos	APR	10 Yrs	Bear
S&P 500 Index	67	5.3	(19.6)	4.4	1.6	12.1	24.7		(28.6)
Bucket 1: Safety	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. GNMA	92	0.1	(0.2)	25.0	2.0	0.6	5.1	2.4	6.8
2. Short-Intmdt Invst Grade Debt	91	0.4	(1.9)	15.0	2.0	0.8	6.1	2.8	3.0
3. Money Market	89	-	-	15.0	0.5	-	1.4	0.8	2.3
4. U.S. Treasury Short	88	0.1	(0.2)	25.0	1.1	0.1	3.8	1.4	6.4
Bucket 2: 1 to 2 Years	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Core Plus Bond	88	0.5	(2.1)	16.3	2.2	1.2	9.0	3.7	3.4
2. Corp Debt A Rated	77	1.1	(3.7)	9.5	2.3	2.1	11.2	4.2	(0.1)
3. Mxd-Ast Trgt Today	67	1.1	(4.9)	8.6	1.3	4.3	10.3	5.0	(5.6)
4. Mxd-Ast Trgt Alloc Consv	62	1.7	(7.0)	7.2	1.5	5.1	11.9	5.8	(6.5)
5. U.S. Treasury Gen	61	0.6	(1.4)	12.0	1.2	(0.6)	7.6	2.5	8.6
Bucket 3: 3 to 4 Years	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Flexible Portfolio	77	2.8	(10.8)	9.1	1.9	9.2	18.7	9.5	(17.0)
2. Mxd-Ast Trgt Alloc Growth	77	3.2	(12.9)	5.6	1.3	9.4	19.3	10.5	(16.0)
3. Mxd-Ast Trgt 2025	68	3.1	(12.0)	4.9	1.6	8.9	16.2	8.9	(23.0)
Bucket 4: 4 to 5 Years	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Equity Income	75	5.2	(18.1)	3.7	2.7	10.4	19.1	14.3	(18.6)
2. S&P 500 Index	67	5.3	(19.6)	4.4	1.6	12.1	24.7	15.1	(28.6)
3. Multi-Cap Core	62	5.4	(20.5)	4.8	1.2	14.9	27.2	15.3	(29.6)
4. Mid-Cap Core	59	7.2	(25.9)	3.1	1.1	18.3	23.3	13.4	(33.6)
Sectors	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Real Estate	71	5.1	(15.2)	5.0	2.1	5.8	21.6		(12.8)
2. Consumer Goods	60	4.6	(15.6)	4.5	2.1	10.4	22.4	12.5	(13.5)
3. Utility	52	8.2	(18.9)	1.3	2.8	8.5	11.9	10.8	(24.4)

Bucket 1: Safety	Vanguard	Fidelity	Schwab	Other	CEF	ETF
1. GNMA	VFIJX	FGMNX		PDMIX		GNMA
2. Short-Intmdt Invst Grade Debt		FNSOX		BIMIX		ISTB
3. Money Market	VMMXX					
4. U.S. Treasury Short	VFISX	FUMBX				SCHO
Bucket 2: 1 to 2 Years						
1. Core Plus Bond				BCOIX		
2. Corp Debt A Rated						QLTA
3. Mxd-Ast Trgt Today	VTINX	FFFAX		ARTOX		
4. Mxd-Ast Trgt Alloc Consv	VASIX	FASIX		AONIX		AOK
5. U.S. Treasury Gen		FUAMX				SPTI
Bucket 3: 3 to 4 Years						
1. Flexible Portfolio		FMSDX		COTZX		GDMA
2. Mxd-Ast Trgt Alloc Growth	VBIAX	FBALX		PAXWX		AOR
3. Mxd-Ast Trgt 2025	VTTVX	FQIFX	SWYDX			
Bucket 4: 4 to 5 Years						
1. Equity Income				AMANX		CCOR
2. S&P 500 Index	VFIAX	FLCPX				SPY
3. Multi-Cap Core	VDEQX	FDSSX	SWLSX	AMPFX		CFO
4. Mid-Cap Core	VIMAX	FLPSX	SWMCX	NMVLX		IWR
Sectors						
1. Real Estate		FRIFX		BREFX		ICF
2. Consumer Goods						FSTA
3. Utility		FIUIX		MMUFX		FUTY

Books: Business Statistics for Competitive Advantage by Cynthia Frasier

December Results By Lipper Category and Bucket

Municipal Bonds	Rank	Ulcer	MaxDD	Martin	Yield	RTN 3Mos	APR	10 Yrs	Bear
1. Muni General & Insured (Unleverage	89	2.1	(6.8)	3.3	3.2	2.9	8.1	5.2	1.9
2. Muni Gen & Ins Debt	84	1.4	(5.0)	4.9	2.1	1.9	6.9	3.8	3.5
3. Muni Intermediate Debt	81	1.1	(4.0)	4.3	2.1	1.5	5.6	2.9	4.2
Yield	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Corp Debt BBB-Rated (Lvrgd)	94	2.2	(8.9)	6.8	5.0	3.8	16.5	7.0	(7.5)
2. U.S. Mortgage	83	0.2	(0.8)	21.7	2.3	0.7	5.8	2.8	4.9
3. Corp Debt BBB-Rated	82	1.0	(4.3)	10.2	4.2	1.6	9.6	3.8	4.9
4. Gen Bond	82	1.8	(6.3)	7.7	3.7	3.0	12.9	6.3	(1.0)
5. Multi-Sector Income	76	0.8	(3.6)	11.3	2.7	2.2	8.5	5.6	(1.3)
6. Retirement Income	74	0.8	(3.7)	9.6	2.0	3.2	9.0	3.9	(2.6)
Inflation Resistant	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Inflation Protected Bond	92	0.6	(1.6)	14.5	1.2	1.6	9.6	2.2	1.1
2. Commodities Precious Metals	82	2.9	(10.3)	6.9	-	0.2	21.3	1.4	9.5
Global & International Bonds	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Intrntnl Income	81	1.1	(4.2)	6.0	2.1	2.1	7.5	4.8	2.2
2. Emer Mrkts Hard Crncy Debt	77	3.5	(13.1)	2.9	3.8	5.6	11.0	4.3	(11.9)
Global & International Equity	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Intrntnl Large-Cap Growth	61	4.5	(17.1)	5.8	0.2	11.8	27.6	11.7	(31.0)
2. Intrntnl Multi-Cap Value	58	9.0	(24.5)	1.6	2.0	18.3	14.8		(24.5)
3. Global Multi-Cap Value	57	9.0	(26.5)	1.5	2.4	20.2	14.5	12.7	(26.5)
Gold & Alternatives	**Rank**	**Ulcer**	**MaxDD**	**Martin**	**Yield**	**RTN 3Mos**	**APR**	**10 Yrs**	**Bear**
1. Options Arb/Strategies	80	3.2	(10.1)	6.6	7.5	6.7	19.5	11.3	(14.7)
2. Alt Event Driven	75	3.5	(12.4)	6.8	1.5	14.4	20.6	2.8	(10.0)
3. Absolute Return Bond	69	1.0	(4.3)	6.6	3.0	2.9	6.7	2.9	(2.0)
4. Alt Credit Focus	68	1.4	(5.5)	4.6	2.2	3.9	7.4	3.4	(4.9)
5. Absolute Return	67	1.8	(5.7)	3.9	2.3	2.3	8.5	4.4	(1.2)

Municipal Bonds						
1. Muni General & Insured (Unleve					NXP	
2. Muni Gen & Ins Debt		FTABX		NOTEX		HTAB
3. Muni Intermediate Debt	VWITX	FLTMX	SWNTX	BMBIX		
Yield						
1. Corp Debt BBB-Rated (Lvrgd)					BHK	
2. U.S. Mortgage	VMBSX	FMSFX		PTRIX		CMBS
3. Corp Debt BBB-Rated		FCBFX			MGF	GBF
4. Gen Bond				BBNIX	MCR	BAB
5. Multi-Sector Income				AIMNX		BYLD
6. Retirement Income			SWKRX			
Inflation Resistant						
1. Inflation Protected Bond	VAIPX	FIPDX	SWRSX			SCHP
2. Commodities Precious Metals						BAR
Global & International Bonds						
1. Intrntnl Income	VTABX	FCDSX		PFORX		BNDX
2. Emer Mrkts Hard Crncy Debt	VEMBX			AEDVX		CEMB
Global & International Equity						
1. Intrntnl Large-Cap Growth	VWILX	FIVFX		PWJZX		IDHQ
2. Intrntnl Multi-Cap Value				BRXAX		FNDF
3. Global Multi-Cap Value	VGPMX	FDMLX				ACWV
Gold & Alternatives						
1. Options Arb/Strategies				HMXIX	ETJ	
2. Alt Event Driven				AEDNX		YLCO
3. Absolute Return Bond				ATMAX		
4. Alt Credit Focus				BASIX		UCON
5. Absolute Return				ATACX		PHDG

Books: Business Statistics for Competitive Advantage by Cynthia Frasier

Mutual Fund Observer

December Trending Funds By Lipper Category

Ranking System is based on Longer Term Performance, Trends are Shorter Term

Orange = High Moving Average – Maybe Late to Party?

Green - Low Moving Average – Early in the Trend?

Fund Flows	Rank	Flow	Ulcer	MaxDD	Martin	RTN 3Mos	APR	SMA10	Bear
1. Global Large-Cap Growth	55	10.2	3.7	(14.3)	7.9	11.3	30.2	13.5	(13.8)
2. Intrntnl Real Estate	47	10.0	7.2	(20.2)	2.1	11.6	16.3	(2.4)	(38.4)
3. Multi-Cap Value	55	9.1	7.9	(23.4)	2.2	18.7	17.6	6.3	(26.7)
4. Alt Multi-Strategy	59	8.2	1.4	(5.1)	5.2	3.0	7.7	3.0	(4.3)
5. Emer Mrkts Hard Crncy Debt	77	7.9	3.5	(13.1)	2.9	5.6	11.0	(0.9)	(11.9)
6. Financial Services	42	7.8	6.1	(22.8)	4.2	22.0	27.0	8.5	(30.4)
7. Global Multi-Cap Core	54	7.2	6.0	(21.2)	3.4	14.0	21.6	7.4	(21.2)
8. Multi-Cap Core	62	7.0	5.4	(20.5)	4.8	14.9	27.2	11.9	(29.6)
9. Mid-Cap Core	59	6.7	7.2	(25.9)	3.1	18.3	23.3	5.9	(33.6)
10. Retirement Income	74	6.3	0.8	(3.7)	9.6	3.2	9.0	1.9	(2.6)
11. Large-Cap Value	51	6.1	7.4	(24.3)	2.7	16.9	20.5	5.7	(25.0)
12. Emer Mrkts	51	6.0	5.8	(20.0)	5.0	18.1	29.7	12.7	(30.9)
13. Intrntnl Equity Income	67	5.8	6.0	(19.4)	3.4	13.4	20.3	6.0	(19.4)
14. Global Income	65	5.7	1.6	(6.7)	5.8	3.7	9.6	1.7	(5.3)
15. Small-Cap Growth	56	5.5	6.0	(23.2)	5.9	24.5	36.4	12.0	(33.8)
16. Small-Cap Core	52	5.4	9.5	(30.7)	2.4	30.4	23.7	4.8	(29.8)
17. Alt Equity Market Neutral	79	5.4	0.7	(3.1)	9.5	3.0	7.8	3.1	(2.2)
18. Flexible Portfolio	77	4.9	2.8	(10.8)	9.1	9.2	18.7	8.4	(17.0)

Books: Business Statistics for Competitive Advantage by Cynthia Frasier

5. December Results
View Two: Newer Method – By Bucket Only
Better View of Individual Funds

Mutual Fund Observer

December Results By Bucket

	First	Second	Third	Fourth	Fifth
Bucket #1	BIMIX	PDMIX	DODIX	VFICX	SWSBX
Bucket #2	BCOIX	VWIAX	VTINX	PTTRX	MWTRX
Bucket #3	ETIMX	FMSDX	FBALX	VGSTX	PRWCX
Bucket #4	NTSX	VIG	SCHD	PRBLX	DIVO
Sector	INDS	SRVR	IYK	FIUIX	XLU
Global Bond	VEMBX	FCDSX	PFORX	TNIBX	TRECX
Global Equity	VIGI	VIAAX	IQDG	VSGX	GMF
Income	GIBIX	DIAL	PTRIX	JMBS	FIXD
Inflation	SPIP	TIPZ	VAIPX	SCHP	SWRSX
Municipal Bond	MMIN	BMNIX	VWITX	HTAB	NXP
Alternatives	SUBFX	YLCO	QQQX	LASYX	CRAZX
Trending	ICVT	VDEQX	GMF	VIMAX	XSOE
Cross	FCDSX	JPIB	HYXF	BASIX	HYLS
Bottom	VTWV	VGISX	FRIFX	IWN	DBC
Downward	FSTGX	FGOVX	FFXSX	TAIL	

Bucket 1: Safety									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Baird Intermediate Bond Inst	(BIMIX)	100	-1.7	7.2	0.8	0.4	2.7	2.1	2.6
PIMCO GNMA and Government Securities Inst	(PDMIX)	99	-0.1	6.1	1.0	0.4	0.0	2.4	3.3
Dodge & Cox Income	(DODIX)	99	-3.1	9.6	2.5	1.0	1.9	2.4	3.1
Vanguard Intermediate-Term Investment-Grad	(VFICX)	98	-3.8	10.3	1.9	0.9	2.0	2.4	3.2
Schwab Short-Term Bond Index	(SWSBX)	98	-0.1	4.7	0.3	0.2	4.2	1.6	1.8

Bucket 2: 1 to 2 Years									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Baird Core Plus Bond Inst	(BCOIX)	97	-3.3	9.5	1.4	0.7	2.2	2.5	2.4
Vanguard Wellesley Income Admiral	(VWIAX)	93	-8.6	12.4	5.6	2.7	4.5	2.7	3.0
Vanguard Target Retirement Income Inv	(VTINX)	89	-6.6	11.6	5.1	2.6	2.4	1.6	3.7
PIMCO Total Return Inst	(PTTRX)	84	-1.7	8.6	1.0	0.6	0.7	2.4	2.5
TCW MetWest Total Return Bond M	(MWTRX)	84	-1.4	8.9	1.1	0.6	-0.2	1.5	2.9

Books: The Research Driven Investor by Timothy Hayes

December Results By Bucket

Bucket 3: 3 to 4 Years									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Eventide Multi-Asset Income I	(ETIMX)	97	-11.0	19.1	9.6	4.1	5.1	1.9	6.9
Fidelity Multi-Asset Income	(FMSDX)	96	-10.9	19.8	10.5	5.3	16.0	3.3	8.1
Fidelity Balanced	(FBALX)	95	-14.6	23.4	11.4	5.8	4.6	1.2	10.4
Vanguard STAR Inv	(VGSTX)	95	-13.2	21.8	12.6	5.8	6.1	1.4	9.0
T Rowe Price Capital Appreciation	(PRWCX)	94	-13.7	21.3	11.4	4.5	-0.4	1.1	7.6

Bucket 4: 4 to 5 Years									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Baseline Fund: State Street SPDR S&P 500 ETF T	(SPY)	72	-19.5	24.7	12.1	6.3	-1.7	1.5	10.8
WisdomTree 90/60 US Balanced	(NTSX)	92	-14.5	28.2	10.6	5.8	2.3	0.9	13.2
Vanguard Dividend Appreciation Index ETF	(VIG)	87	-17.2	22.4	10.3	5.1	8.4	1.6	9.1
Schwab US Dividend Equity ETF	(SCHD)	85	-21.5	21.0	17.1	6.8	3.9	3.2	9.1
Parnassus Core Equity Inv	(PRBLX)	83	-17.0	25.8	11.1	5.7	1.5	0.6	12.4
Amplify CWP Enhanced Dividend Income ETF	(DIVO)	82	-17.4	18.2	9.0	5.2	33.9	4.9	10.1

Sector									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Pacer Benchmark Industrial Real Estate SCTR ET	(INDS)	87	-17.0	26.5	10.4	5.7	6.3	1.7	4.5
Pacer Benchmark Data & Infrastructure Real Es	(SRVR)	81	-8.3	26.0	2.1	2.5	1.1	1.6	8.3
BlackRock iShares US Consumer Goods ETF	(IYK)	80	-19.0	30.3	16.5	9.0	-1.5	1.4	15.0
Fidelity Telecom & Utilities	(FIUIX)	54	-19.1	11.6	11.2	3.4	3.5	2.3	-2.0
State Street Utilities Select Sector SPDR	(XLU)	53	-18.7	12.5	6.5	0.7	-0.2	3.1	-2.1

Global & International Bonds									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Vanguard Emerging Markets Bond Inv	(VEMBX)	98	-11.8	16.3	6.5	2.9	15.4	3.2	3.1
Fidelity Series International Credit	(FCDSX)	92	-8.0	11.1	3.3	1.2	1.5	4.0	0.1
PIMCO International Bond (US Dollar-Hedged)	(PFORX)	91	-3.7	6.7	2.1	0.7	0.1	2.5	0.9
T Rowe Price International Bond (USD Hedged)	(TNIBX)	89	-4.3	7.3	2.0	0.8	-0.1	1.4	0.7
T Rowe Price Emerging Markets Corporate Bon	(TRECX)	86	-14.4	9.9	5.8	2.3	11.4	4.1	-2.3

Mutual Fund Observer

December Results By Bucket

Global & International Equity									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Vanguard International Dividend Appreciation	(VIGI)	81	-18.8	20.9	13.8	7.4	7.4	1.3	5.3
Vanguard International Dividend Appreciation	(VIAAX)	74	-18.8	20.9	13.8	7.4	7.4	1.3	5.3
WisdomTree International Quality Dividend Gr	(IQDG)	71	-18.6	23.1	12.7	7.8	-0.5	1.7	10.0
Vanguard ESG International Stock ETF	(VSGX)	70	-22.9	18.1	16.1	8.0	11.5	1.7	3.8
State Street SPDR S&P Emerging Asia Pacific ET	(GMF)	67	-18.1	22.2	16.4	6.3	6.9	1.3	10.7

Income with Safety									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Guggenheim Total Return Bond Inst	(GIBIX)	100	-1.1	9.8	2.9	1.4	2.4	2.5	5.9
Columbia Diversified Fixed Income Allocation	(DIAL)	100	-5.5	11.2	3.5	1.6	35.1	2.6	2.2
PIMCO Mortgage-Backed Securities Inst	(PTRIX)	99	-1.0	5.8	1.0	0.4	1.2	2.9	1.8
Janus Henderson Mortgage-Backed Securities I	(JMBS)	99	-1.3	6.5	1.3	0.6	4.0	2.7	2.1
First Trust TCW Opportunistic Fixed Income ETI	(FIXD)	99	-1.1	9.0	1.0	0.5	4.2	2.0	3.2

Inflation Protected Bonds, Gold, Commodities									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Baseline: BlackRock iShares Gold Trust	(IAU)	78	-10.3	21.2	0.2	2.4	-0.5	0.0	12.6
State Street SPDR Portfolio TIPS ETF	(SPIP)	99	-1.8	10	1.6	1.2	2.0	2.0	3.9
PIMCO Broad US TIPS Index Exchange-Traded	(TIPZ)	97	-1.3	9.9	1.6	1.1	8.6	1.5	4.2
Vanguard Inflation-Protected Securities Admir	(VAIPX)	96	-1.3	9.6	1.6	1.1	0.5	1.4	4.1
Schwab US TIPS ETF	(SCHP)	95	-1.8	9.6	1.6	1.1	2.8	1.1	3.7
Schwab Treasury Inflation Protected Securities	(SWRSX)	95	-1.7	9.6	1.6	1.1	5.0	1.3	3.7

Municipal Bond									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
IQ MacKay Municipal Insured ETF	(MMIN)	98	-4.1	7.8	2.1	1.0	31.7	2.2	0.6
Baird Core Intermediate Municipal Bond Inst	(BMNIX)	95	-3.6	6.0	1.5	0.7	5.2	2.0	0.2
Vanguard Intermediate-Term Tax-Exempt Inv	(VWITX)	91	-4.3	6.0	1.7	0.8	1.1	2.3	-0.2
Hartford Schroders Tax-Aware Bond ETF	(HTAB)	90	-2.8	6.7	1.2	0.6	0.5	1.3	1.3
Nuveen Select Tax-Free Income Portfolio	(NXP)	90	-6.7	8.1	3.2	1.6	-0.3	3.3	-2.1

December Results By Bucket

Alternatives									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Carillon Reams Unconstrained Bond I	(SUBFX)	97	-3.0	8.7	3.2	1.3	-1.7	3.0	5.8
Global X YieldCo & Renewable Energy Income	(YLCO)	96	-20.7	30.8	24.6	11.5	2.6	3.0	3.5
Nuveen Nasdaq 100 Dynamic Overwrite	(QQQX)	87	-15.4	22.0	7.7	4.8	-1.5	5.9	12.0
Natixis Loomis Sayles Strategic Alpha Y	(LASYX)	86	-6.2	7.0	4.8	2.0	2.0	2.3	2.5
Columbia Adaptive Risk Allocation Inst	(CRAZX)	85	-7.1	14.1	7.6	3.8	0.7	0.9	5.1

Trending: Funds Trending Up with Money Inflows									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
BlackRock iShares Convertible Bond ETF	(ICVT)	74	-14.5	40.6	23.4	10.9	12.6	1.1	22.1
Vanguard Diversified Equity Inv	(VDEQX)	72	-20.9	30.2	17.8	8.3	9.9	0.7	13.9
State Street SPDR S&P Emerging Asia Pacific ET	(GMF)	67	-18.1	22.2	16.4	6.3	6.9	1.3	10.7
Vanguard Mid-Cap Index Admiral	(VIMAX)	64	-25.7	24.5	18.0	7.6	9.0	1.4	7.2
WisdomTree Emerging Markets ex-State-Owne	(XSOE)	56	-21.3	26.8	19.3	8.4	13.0	1.0	12.3

Cross: Funds that are just above the 10 Month Moving Average and Recovering									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Fidelity Series International Credit	(FCDSX)	92	-8.0	11.1	3.3	1.2	1.5	4.0	0.1
JPMorgan International Bond Opportunities ET	(JPIB)	85	-6.3	8.5	4.0	1.6	29.2	3.2	0.8
BlackRock iShares ESG Advanced High Yield Co	(HYXF)	85	-8.4	10.4	4.6	1.7	14.2	4.6	0.4
BlackRock Strategic Income Opportunities Port	(BASIX)	65	-6.7	7.2	4.0	1.8	1.7	2.4	0.4
First Trust Tactical High Yield ETF	(HYLS)	55	-10.6	9.5	4.8	1.9	0.2	5.1	0.4

Bottom: Funds Below the 10 Month Moving Average and Recovering									
Name	Symbol	Rank	MaxDD	APR	Rtn 3 mo	Trend	Flow	Yield	SMA10
Vanguard Russell 2000 Value Index ETF	(VTWV)	20	-35.6	13.2	33.3	13.2	16.2	1.5	-5.2
Virtus Duff & Phelps Global Real Estate Securit	(VGISX)	16	-25.7	13.3	13.4	6.9	1.5	0.5	-7.9
Fidelity Real Estate Income	(FRIFX)	15	-26.6	8.0	9.0	4.2	3.6	4.8	-10.5
BlackRock iShares Russell 2000 Value ETF	(IWN)	15	-35.7	13.0	33.3	13.2	1.2	1.6	-5.3
Invesco DB Commodity Index Tracking	(DBC)	1	-31.5	1.6	12.0	6.9	16.1	0.0	-6.4

5. December Results
View Three: Better View by Family or Asset Universe

Results By Fund Family and/or Asset Universe

Vanguard								
Symbol	Name	Bucket	Author's Rar	YTD	APR	Ulcer Index	Martin Ratio	Yield
VFICX	Vanguard Intermediate-Term Investment-Grade Inv	Bucket #1	98.3	10.3	10.3	0.8	11.3	2.4
VEMBX	Vanguard Emerging Markets Bond Inv	Global Bond	97.6	15.0	16.3	3.0	5.0	3.2
VAIPX	Vanguard Inflation-Protected Securities Admiral	Inflation	96.1	10.9	9.6	0.5	15.8	1.4
VGSTX	Vanguard STAR Inv	Bucket #3	94.7	21.4	21.8	3.2	6.4	1.4
VWIAX	Vanguard Wellesley Income Admiral	Bucket #2	93.1	8.5	12.4	2.0	5.6	2.7
VWITX	Vanguard Intermediate-Term Tax-Exempt Inv	Municipal Bon	91.4	5.1	6.0	1.1	4.2	2.3
VMBSX	Vanguard Mortgage-Backed Securities Index Admiral	Income	80.0	3.7	4.9	0.1	25.0	1.8
VIAAX	Vanguard International Dividend Appreciation Index A	Global Equity	73.6	15.1	20.9	5.6	3.5	1.3
VDEQX	Vanguard Diversified Equity Inv	Bucket #4	72.2	29.0	30.2	5.3	5.4	0.7
VGHCX	Vanguard Health Care Inv	Sector	31.9	12.6	17.7	3.8	4.3	0.8

Fidelity								
Symbol	Name	Bucket	Author's Rar	YTD	APR	Ulcer Index	Martin Ratio	Yield
FGMNX	Fidelity GNMA	Bucket #1	97.4	3.7	4.7	0.0	25.0	1.6
FMSDX	Fidelity Multi-Asset Income	Bucket #3	95.6	16.6	19.8	2.9	6.5	3.3
FCDSX	Fidelity Series International Credit	Global Bond	92.3	8.3	11.1	1.9	5.1	4.0
FIPDX	Fidelity Inflation-Protected Bond Index	Inflation	92.0	10.9	9.6	0.5	15.8	0.2
FCBFX	Fidelity Corporate Bond	Income	90.0	10.8	12.6	1.7	6.7	2.5
FTABX	Fidelity Tax-Free Bond	Municipal Bon	80.2	5.0	6.8	2.3	2.4	2.6
FTANX	Fidelity Asset Manager 30%	Bucket #2	71.8	11.1	12.3	2.0	5.7	1.4
FITLX	Fidelity US Sustainability Index	Bucket #4	68.9	18.7	24.9	5.1	4.7	1.0
FIVFX	Fidelity International Capital Appreciation	Global Equity	60.6	22.3	27.6	4.5	5.8	0.2
FIUIX	Fidelity Telecom & Utilities	Sector	54.2	2.1	11.6	7.4	1.4	2.3

Mutual Fund Observer

Results By Fund Family and/or Asset Universe

Exchange Traded Funds								
Symbol	Name	Bucket	Author's Rar	YTD	Age	Ulcer Index	Martin Ratio	Yield
DIAL	Columbia Diversified Fixed Income Allocation ETF	Income	99.6	8.8	3.2	1.2	8.0	2.6
SPIP	State Street SPDR Portfolio TIPS ETF	Inflation	98.5	11.5	13.6	0.6	13.7	2.0
MMIN	IQ MacKay Municipal Insured ETF	Municipal Bon	97.8	7.5	3.2	1.0	6.4	2.2
YLCO	Global X YieldCo & Renewable Energy Income ETF	Alternatives	96.0	25.3	5.6	6.0	4.9	3.0
NTSX	WisdomTree 90/60 US Balanced	Bucket #4	91.8	25.0	2.3	3.7	7.2	0.9
HNDL	Strategy Shares Nasdaq 7HANDL Index ETF	Bucket #3	91.1	12.5	2.9	2.2	6.2	6.7
SCHO	Schwab Short-Term US Treasury ETF	Bucket #1	90.9	3.1	10.3	0.0	25.0	1.3
INDS	Pacer Benchmark Industrial Real Estate SCTR ETF	Sector	87.4	12.6	2.6	5.5	4.6	1.7
JPIB	JPMorgan International Bond Opportunities ETF	Global Bond	85.2	6.3	3.7	1.6	4.7	3.2
VIGI	Vanguard International Dividend Appreciation Index E	Global Equity	80.9	15.1	4.8	5.6	3.6	1.3

Other Fund Families								
Symbol	Name	Bucket	Author's Rar	YTD	APR	Ulcer Index	Martin Ratio	Yield
BIMIX	Baird Intermediate Bond Inst	Bucket #1	100.0	7.4	7.2	0.4	16.5	2.1
GIBIX	Guggenheim Total Return Bond Inst	Income	99.8	15.2	9.8	0.3	25.0	2.5
BCOIX	Baird Core Plus Bond Inst	Bucket #2	97.2	8.8	9.5	0.7	11.6	2.5
ETIMX	Eventide Multi-Asset Income I	Bucket #3	97.0	18.4	19.1	2.6	6.9	1.9
SUBFX	Carillon Reams Unconstrained Bond I	Alternatives	96.5	11.2	8.7	0.6	12.0	3.0
BMNIX	Baird Core Intermediate Municipal Bond Inst	Municipal Bon	95.4	5.3	6.0	0.9	5.2	2.0
PFORX	PIMCO International Bond (US Dollar-Hedged) Inst	Global Bond	90.5	6.2	6.7	0.9	6.0	2.5
PRBLX	Parnassus Core Equity Inv	Bucket #4	82.7	21.2	25.8	4.5	5.5	0.6
ARTTX	Artisan Focus Inv	Global Equity	65.6	29.7	31.0	3.7	8.0	0.0
PRHSX	T Rowe Price Health Sciences	Sector	45.1	30.1	29.6	4.0	7.2	0.0

Results By Fund Family and/or Asset Universe

Charles Schwab								
Symbol	Name	Bucket	Author's Ran	YTD	APR	Ulcer Index	Martin Ratio	Yield
SWSBX	Schwab Short-Term Bond Index	Bucket #1	98.1	4.5	4.7	0.0	25.0	1.6
SWRSX	Schwab Treasury Inflation Protected Securities Index	Inflation	94.5	10.9	9.6	0.6	14.4	1.3
SWNTX	Schwab Tax-Free Bond	Municipal Bon	78.7	4.6	5.6	1.4	3.1	2.0
SWLRX	Schwab Monthly Income -- Maximum Payout	Income	74.0	6.9	9.0	0.8	9.6	2.1
SWYDX	Schwab Target 2025 Index	Bucket #3	71.3	12.4	15.6	2.9	5.0	1.7
SWMCX	Schwab US Mid-Cap Index	Bucket #4	66.4	17.0	23.6	7.6	3.0	1.5

Closed End Funds								
Symbol	Name	Bucket	Author's Ran	YTD	APR	Ulcer Index	Martin Ratio	Yield
BHK	BlackRock Core Bond Trust	Income	93.6	13.1	16.5	2.2	6.8	5.0
NXP	Nuveen Select Tax-Free Income Portfolio	Municipal Bon	89.8	6.2	8.1	2.1	3.4	3.3
MIN	MFS Intermediate Income Trust	Income	87.8	8.1	7.8	0.5	14.1	8.6
QQQX	Nuveen Nasdaq 100 Dynamic Overwrite	Alternatives	86.5	16.8	22.0	4.4	4.7	5.9
GOF	Guggenheim Strategic Opportunities	Bucket #3	77.6	14.1	10.9	3.7	2.6	12.8
MCR	MFS Charter Income Trust	Income	69.8	8.2	12.0	2.3	4.6	7.8
NUV	Nuveen Municipal Value	Municipal Bon	61.3	5.4	7.3	2.3	2.6	3.5
MUA	BlackRock MuniAssets	Municipal Bon	44.4	5.1	6.9	4.0	1.4	4.4
HIO	Legg Mason Western Asset Highome Opportunity	Income	44.1	6.6	11.1	3.7	2.7	7.1

5. December Results
View Four: Risk-Adjusted Yields

High Risk-Adjusted Income

(Yield >=3%, & Yield/Ulcer >=1)

Symbol	Name	LipperCategory	Lynn's Rank	APR	MAXDD	Ulcer Index	Yield	Yield/Ulcer
MGF	MFS Government Markets Income Trust	Corporate Debt BBB-Rated	84	7.6	-1.1	0.4	7.4	18.4
MIN	MFS Intermediate Income Trust	Corporate Debt BBB-Rated	88	7.8	-2.3	0.5	8.6	17.2
SUBFX	Carillon Reams Unconstrained Bond I	Absolute Return Bond	97	8.7	-3.0	0.6	3.0	5.0
ETJ	Eaton Vance Risk-Managed Diversified Equity Incom	Options Arbitrage/Strategies	73	16.9	-4.8	1.9	9.1	4.8
HFATX	Janus Henderson Developed World Bond T	Multi-Sector Income	94	9.4	-4.5	1	4.4	4.4
PMZIX	PIMCO Mortgage Opportunities and Bond Inst	Absolute Return	58	5.2	-4.8	1.1	4.0	3.6
GOF	Guggenheim Strategic Opportunities	High Yield (Leveraged)	78	10.9	-12.9	3.7	12.8	3.5
MCR	MFS Charter Income Trust	General Bond	70	12.0	-9.3	2.3	7.8	3.4
HNDL	Strategy Shares Nasdaq 7HANDL Index ETF	Flexible Portfolio	91	14.7	-9.3	2.2	6.7	3.0
BBNIX	BBH Income I	General Bond	86	10.4	-4.8	1.1	3.1	2.8
BYLD	BlackRock iShares Yield Optimized Bond ETF	Multi-Sector Income	76	8.3	-5.5	1.3	3.1	2.4
UCON	First Trust TCW Unconstrained Plus Bond ETF	Alternative Credit Focus	63	6.7	-5.8	1.3	3.0	2.3
BHK	BlackRock Core Bond Trust	Corporate Debt BBB-Rated (Lev	94	16.5	-8.9	2.2	5.0	2.3
QYLD	Global X NASDAQ 100 Covered Call ETF	Alternative Long/Short Equity	73	15.7	-16.6	5.1	11.2	2.2
FCDSX	Fidelity Series International Credit	International Income	92	11.1	-8.0	1.9	4.0	2.1
HYXF	BlackRock iShares ESG Advanced High Yield Corporat	High Yield	85	10.4	-8.4	2.3	4.6	2.0
JPIB	JPMorgan International Bond Opportunities ETF	International Income	85	8.5	-6.3	1.6	3.2	2.0
EPRF	Innovator S&P Investment Grade Preferred ETF	Equity Income	70	13.0	-10.1	2.5	4.9	2.0
PSK	State Street SPDR Wells Fargo Preferred Stock ETF	Flexible Income	72	12.4	-10.9	2.7	5.1	1.9
FDHY	Fidelity High Yield Factor ETF	High Yield	95	14.0	-9.8	2.3	4.3	1.9
VWEHX	Vanguard High-Yield Corporate Inv	High Yield	76	10.4	-10.7	2.9	4.6	1.6
NXP	Nuveen Select Tax-Free Income Portfolio	Muni General & Insured (Unlev	90	8.1	-6.7	2.1	3.3	1.6
NXR	Nuveen Select Tax-Free Income Portfolio 3	Muni General & Insured (Unlev	88	8.0	-6.9	2	3.1	1.5
PFFD	Global X US Preferred ETF	Flexible Income	81	13.2	-13.3	3.4	5.2	1.5

6. Closing

Mutual Fund Observer

2020 Conservative Model Portfolios

Symbol	Name	Lipper Category	Weight %	APR	APR vs Peer	APR Rating	Peer Count	MAXDD %
FUMBX	Fidelity Short-Term Treasury Bond Index	U.S. Treasury Short	10.0%	4.4	+2.3	5	16	-0.2
FTHRX	Fidelity Intermediate Bond	Short-Intmdt Investment Grade Debt	5.0%	7.2	+2.4	5	75	-2.5
FRIFX	Fidelity Real Estate Income	Real Estate	5.0%	-1.1	+3.4	4	131	-26.6
FIKFX	Fidelity Freedom Index Income Inv	Mixed-Asset Target Today	18.0%	8.5	-1.0	2	35	-3.1
FXNAX	Fidelity US Bond Index	Core Bond	5.0%	7.8	-0.4	3	212	-1.5
FGOVX	Fidelity Government Income	U.S. Government General	10.0%	6.8	-0.8	3	34	-1.6
FGBFX	Fidelity Global Credit	Global Income	5.0%	8.3	+1.7	4	95	-9.6
FIPDX	Fidelity Inflation-Protected Bond Index	Inflation Protected Bond	5.0%	10.9	+1.5	3	80	-1.3
FMSDX	Fidelity Multi-Asset Income	Flexible Portfolio	10.0%	16.6	+7.3	4	236	-10.9
FWRLX	Fidelity Select Wireless Portfolio	Telecommunication	5.0%	33.1	+4.8	4	19	-13.1
FIGFX	Fidelity International Growth	International Large-Cap Growth	5.0%	17.0	-3.3	2	95	-17.6
FEMSX	Fidelity Series Emerging Markets Opportunities	Emerging Markets	5.0%	24.7	+7.9	4	337	-24.5
FDEGX	Fidelity Growth Strategies	Multi-Cap Growth	5.0%	29.4	-11.4	2	215	-18.3
IAU	BlackRock iShares Gold Trust	Commodities Precious Metals	5.0%	23.8	-1.9	3	23	-10.3
BTAL	AGFiQ US Market Neutral Anti-Beta	Alternative Equity Market Neutral	2.0%	-13.8	-8.4	2	21	-25.4
PORT1	Fidelity Conservative	-	100.0%	12.1	+0.8	3	-	-5.6

Symbol	Name	Lipper Category	Weight %	APR	APR vs Peer	APR Rating	Peer Count	MAXDD %
VFIJX	Vanguard GNMA Admiral	GNMA	7.0%	3.8	0.0	3	14	-0.3
VFISX	Vanguard Short-Term Treasury Inv	U.S. Treasury Short	11.0%	4.0	+1.9	5	16	-0.1
PRSNX	T Rowe Price Global Multi-Sector Bond Inv	Global Income	5.0%	8.1	+1.6	4	95	-9.8
VBILX	Vanguard Intermediate-Term Bond Index Admiral	Core Bond	12.0%	9.8	+1.6	5	212	-1.4
VEMBX	Vanguard Emerging Markets Bond Inv	Emerging Mrkts Hard Currency Debt	4.0%	15.0	+10.0	5	97	-11.8
VTABX	Vanguard Total International Bond Index Admiral	International Income	5.0%	4.5	-2.0	2	41	-2.5
VWIAX	Vanguard Wellesley Income Admiral	Mixed-Asset Target Alloc Consv	15.0%	8.5	-0.2	3	145	-8.6
VFICX	Vanguard Intermediate-Term Investment-Grade Inv	Core Bond	0.0%	10.3	+2.1	5	212	-3.8
VMVFX	Vanguard Global Minimum Volatility Inv	Global Small-/Mid-Cap	5.0%	-4.0	-26.6	1	48	-21.7
VWELX	Vanguard Wellington Inv	Mixed-Asset Target Alloc Growth	10.0%	10.6	-1.2	3	260	-14.1
VGSTX	Vanguard STAR Inv	Mixed-Asset Target Alloc Growth	3.0%	21.4	+9.6	5	260	-13.2
VGWAX	Vanguard Global Wellington Admiral	Mixed-Asset Target Alloc Growth	5.0%	7.5	-4.4	2	260	-15.6
VPGDX	Vanguard Managed Allocation	Retirement Income	9.0%	6.9	-2.5	1	22	-16.0
IAU	BlackRock iShares Gold Trust	Commodities Precious Metals	5.0%	23.8	-1.9	3	23	-10.3
VEMAX	Vanguard Emerging Markets Stock Index Admiral	Emerging Markets	4.0%	15.2	-1.6	3	337	-24.6
PORT3	Vanguard Conservative	-	100.0%	8.7	-1.0	3	-	-7.5

Personal Investment Improvement

1) More focus on performance and less on searching for funds.
2) More confidence in investment decisions
3) Sleep at Night Portfolio
4) Less time required
5) Lose Weight, Get Taller, More Beautiful, Richer, and Smarter

Thank you Mutual Fund Observer.

Books: Mastering the Market Cycle By Howard Marks

Mutual Fund Observer

Suggestions?

Questions?

Reference Only

Updates (Mostly Small)

- **MultiSeach now has 64 Evaluation Periods**
  - 6 Full Cycle and 10 Unique
  - Plus, past twelve month returns in Trend group
- **Alternative Energy Category**
  - Now at 176 organized into 11 subtypes, like US Equity
- **40 Screenshots & Blog Archival**
- **New MultiSeach Metrics and M* PreSet: Yield, Yield Ratings, ESG Score, Smart Beta, CEF Leverage & Industry**
  - Reference here and here
- **A Much Improved Portfolios Tool**
  - Enter $ weights and substitute category averages for young funds

Planned Improvements

- **Portfolios Tool**
  - Expanded Metrics, inc. % Allocations
- **Custom User Views**
  - Selectable Columns and Column Order Preference
  - Stored To User Profile
- **Premium Risk Profiles**
  - Showing all eval periods
- **Model Portfolios**
- **Mid-Month Update**
- **Exclude Categories Option**
- **MFO Risk & Type Based Ratings**
- **Uncorrelated Funds Finder**
- **Plotting**
- **YouTube Tutorials**

Highly Responsive To Subscriber Suggestions!

Background

- Internal research to identify funds that minimized downside performance across full market cycles
  - MAXDD, Ulcer Index, Martin Ratio, Recovery Time
  - Evaluation periods of interest, like from November 2007 to December 2019 … or from August 2000 to October 2007
- Not readily available from traditional services, like Morningstar
- So, we created the tools ourselves
- Continue to find other metrics/ratings not readily available
  - Three Alarm, Fund Family Scorecard, Correlation, Rolling Averages, Trend, Ferguson Metrics
- Realized such tools may be of interest to other investors and financial advisers
  - Launched MFO Premium November 2015

Premium Only Pages

- **MultiSearch**
  - Main tool with 200 search criteria across 64 evaluation periods
  - ETFs, Mutual & Insurance Funds, CEFs, ETNs, Indices, Averages, Reference
  - All share classes available but defaults to oldest
  - Pre-set Screens, Risk Profiles, Correlation Matrix, Rolling Averages, Trend, Ferguson Metrics, Compare, Calendar Year and Period Performance
  - Equity/Bond Allocations … some back to 1926!
- **Watchlists and Portfolios**
  - Up to 10 with up to 100 funds each
  - Portfolios provides risk and return metrics based on fund weightings
- **Fund Family Score Card**
  - Fund family ratings based on absolute return vs peers
- **Averages**
  - Summary of 176 category risk and return averages across 10 periods
- **Welcome**
  - Downloadable Excel spread sheet of latest ratings

Public Access Pages

- **QuickSearch**
  - MultiSearch “Lite” with 9 search criteria across 5 evaluation periods
  - Risk Profiles
  - ETFs & Mutual Funds … oldest share class only
- **Three Alarm & Great Owls**
  - Three Alarm (& Honor Roll) Ratings based on legacy Fund Alarm site
  - Great Owl Ratings based on Martin Ratio
- **Dashboard**
  - Quick-look performance of 120+ profiled funds (by David mostly)
- **Definitions**
- **Blog**
  - Less formal than Commentary, but more formal than Discussion Board
- **Welcome**
  - Summary of latest updates and **screenshots** of site contents

Implementation

- Lipper Global Data Feed Service (LGDF) for U.S.
  - Pull full data monthly on first Saturday of month
  - Best when falls after 4 business days, else requires 2nd drop
  - 12,320 (32,015 all share class, ASC), including 550 CEFs, 2,350 ETFs, 180 ETNs, 2,100 Insurance Funds, across 176 categories, plus 2,035 indexes
  - Main database begins 1960, surviving only, plus SP500/LGovBnd to 1926
- All performance and risk metrics computed internally from monthly total return data
  - 11,702 parameters for each fund (info parameters 1,013, period ratings 2,951, period metrics 7,738)
- Site maintained using standard web languages
  - DataTables output and Select2 styling (Open source MIT license)
  - WordPress framework with MemberPress as login/account manager
  - DreamHost is web host
  - Optimized for Firefox, but OK on Chrome, Opera, Edge, Safari (macOS, iOS)

Qualifications

- Screeners are quantitative only
  - MultiSearch, ThreeAlarm, HonorRoll, Great Owls, Fund Family Ratings
  - Only "David's Take" from main site profiles are qualitative
- Metrics based strictly on historical fund performance
  - Backward looking, past performance
- No accounting for surviorship bias
- No accounting for style drift
- No accounting for management or strategy changes

The performance data quoted represents past performance and does not guarantee future results.