

# MarketGrader Risk-Managed 100 Index

The MarketGrader Risk-Managed 100 Index combines the MG 100, a flagship MarketGrader core U.S. equity benchmark, with the Kaizen Dynamic Risk Overlay Index. The objective is to provide investors with a measure of the capital appreciation opportunity in the U.S. equity market that minimizes the negative impact of bear markets. During periods of significant downward pressure on U.S. stocks, the Dynamic Risk Overlay aims to preserve MG 100's significant upside capture statistics, enhancing its capital appreciation properties over time.

## Index Rules

### Underlying Universe

MarketGrader North American coverage universe of approximately 4,800 companies, excluding Canada, listed on U.S. exchanges.

### Objective

Designed to serve as the basis of investment funds providing access to investors to some of the most promising stocks in the U.S.

### Weighting

The index is equally weighted.

### Rebalance Frequency

Semi-annually on the third Friday of February and August.

### Selection Criteria

Stocks are selected based on their overall MarketGrader fundamental score on a scale of one hundred (100). Score is calculated based on 24 fundamental factors across Growth, Value, Profitability and Cash Flow.

### Market Cap Requirements

All selections must have a minimum total market cap of USD \$100 million. At least 25 of all index constituents must have a total market cap of at least USD \$10 billion. No more than 25 of all index constituents may have a total market cap below \$1 billion.

### Liquidity Requirements

All selections must have a minimum three month average daily traded dollar volume of \$2 million.

### Sector Limits

No more than 25 index constituents may belong to the same economic sector while no more than 12 may belong to the same sub-industry. REITs and Utilities are altogether ineligible for selection to the index.

### Hedge

When the Kaizen Dynamic Risk Overlay Index (KZTVOL) is on, the MarketGrader Risk-Managed 100 Index allocates 30% to a collection of VIX futures contracts, the value of which are added to the index's overall value.

### Ticker

KZTMGO

### Index Calculation

New York Stock Exchange

### Licensing opportunities

licensing@marketgrader.com

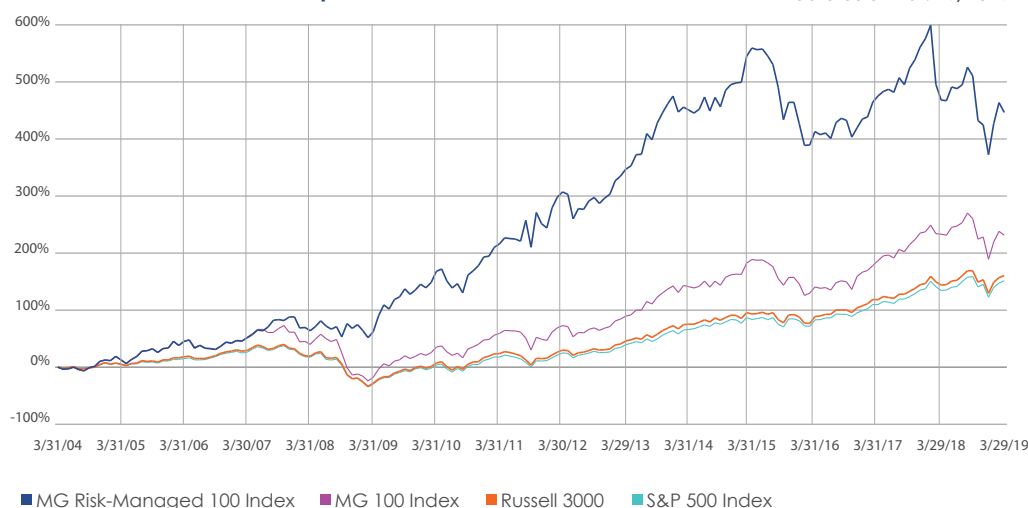
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## Hypothetical Performance

### Cumulative Price Return, Apr. 2004 - Mar. 2019\*

All data as of Mar. 29, 2019



### Calendar Year Returns

	KZTMGO	MG100	R3000	S&P500
2019*	15.63%	14.64%	13.49%	13.07%
2018	-30.07%	-14.31%	-6.99%	-6.24%
2017	26.37%	26.59%	18.85%	19.42%
2016	1.50%	8.33%	10.41%	9.54%
2015	-11.91%	-6.51%	-1.47%	-0.73%
2014	4.00%	8.54%	10.45%	11.39%
2013	42.66%	41.57%	30.95%	29.60%
2012	17.20%	16.60%	13.98%	13.41%
2011	17.40%	-0.59%	-0.92%	0.00%
2010	19.41%	19.16%	14.75%	12.78%
2009	40.51%	40.86%	25.46%	23.45%
2008	-7.23%	-45.53%	-38.70%	-38.49%
2007	32.31%	14.04%	3.30%	3.53%
2006	6.61%	6.15%	13.66%	13.62%
2005	18.50%	18.50%	4.28%	3.00%

YTD values through 03/29/2019  
Sources: Bloomberg, FactSet, MarketGrader.com

### Annualized Returns

	KZTMGO	MG100	R3000	S&P500
3-Years	2.30%	11.50%	11.40%	11.30%
5 -Years	0.10%	6.90%	8.40%	8.80%
Since 04/'04	12.00%	8.30%	6.60%	6.30%

### Cumulative Returns

	KZTMGO	MG100	R3000	S&P500
3-Years	7.20%	38.50%	38.30%	37.90%
5 -Years	0.70%	39.50%	49.90%	52.60%
Since 04/'04	446.50%	231.30%	160.40%	151.70%

### Standard Deviation

	KZTMGO	MG100	R3000	S&P500
3-Years	17.44%	14.88%	11.14%	10.77%
5 -Years	16.45%	14.68%	11.31%	10.99%
Since 04/'04	18.47%	18.67%	14.03%	13.53%

### Sharpe Ratio

	KZTMGO	MG100	R3000	S&P500
3-Years	0.13	0.77	1.02	1.05
5 -Years	0.01	0.47	0.74	0.80
Since 04/'04	0.65	0.44	0.47	0.47

Frequency: Monthly.  
Sources: Bloomberg, FactSet, MarketGrader.com

The Kaizen Dynamic Risk Overlay Index (KZTVOL) was developed by and is the property of Kaizen Advisory, LLC. All rights reserved.

\* The MarketGrader Risk-Managed 100 Index was first published on Oct. 1, 2015. All estimated daily historical closing prices prior to that date are based on back-testing (i.e., calculations of how the index might have performed in the past if it had existed). Back-tested performance information is purely hypothetical and is solely for informational purposes. Backtested performance does not represent actual performance, and should not be interpreted as an indication of actual performance. Past performance is not indicative of future results. The index inception date was April 1, 2004. MarketGrader.com © 2019.

Index composition data as of Mar 29, 2019

## Index Bio

Average Market Cap	\$39,870.78
Median Market Cap	\$6,114.63
Average 3 Mo. Dollar Volume	\$223,290,486.26
Average 3 Mo. Trading Volume	2,249,979.00
Last Rebalance Date	2/18/19
Companies Replaced	87
Biggest Sector Increase	Technology
Biggest Sector Decrease	Industrials
Companies Overlapping S&P 500	38

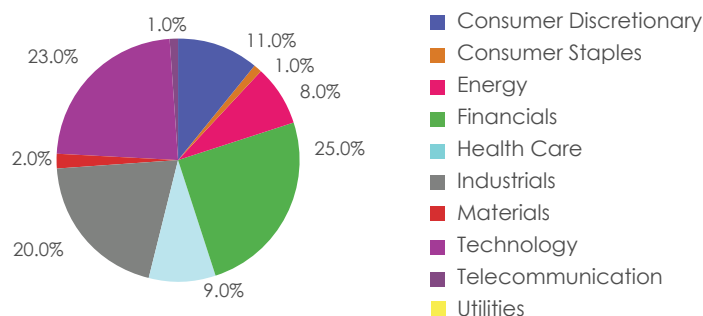
## Fundamental Attributes

	Median
Trailing P/E Ratio	16.2
Forward P/E Ratio	15.8
Earnings Yield	6.5%
Price/Tangible Book Ratio	3.3
Revenue Change - 3 Years	31.3%
Operating Income Change - 3 Years	56.8%
Operating Margin	20.5%
Earnings per Share (EPS) 3-Year Growth	21.9%
Total Debt to Capital	35.3%
Return on Equity	20.7%
Dividend Yield	1.15%
Beta to S&P 500 Index	1.0

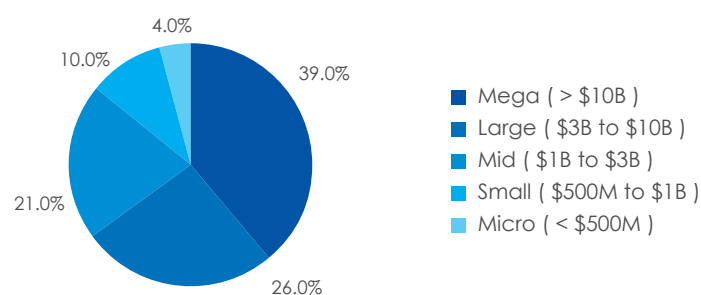
## Median and Average grades

	Median	Average
MarketGrader 100 Index	69.1	67.7
Russell 3000	48.6	47.7
S&P 500	55.2	54.7
Dow Jones Industrial Average	60.5	59.1
NASDAQ Composite	58.5	59.6

## Sector Breakdown



## Market Cap Breakdown



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## Top 20 Stocks by Fundamentals

Ticker	Name	Grade
FB	Facebook, Inc. Class A	● 85.40
NUE	Nucor Corporation	● 83.61
CMA	Comerica Incorporated	● 83.52
REGN	Regeneron Pharmaceuticals, Inc.	● 82.62
HEAR	Turtle Beach Corporation	● 81.75
TER	Teradyne, Inc.	● 81.18
ZION	Zions Bancorporation, N.A.	● 81.06
KLAC	KLA-Tencor Corporation	● 80.35
NBLX	Noble Midstream Partners LP	● 79.28
OXY	Occidental Petroleum Corporation	● 78.58
VSH	Vishay Intertechnology, Inc.	● 78.50
SYF	Synchrony Financial	● 78.26
WAL	Western Alliance Bancorp	● 77.82
CARO	Carolina Financial Corp.	● 77.41
WHD	Cactus, Inc. Class A	● 76.32
WBS	Webster Financial Corporation	● 74.87
CBPX	Continental Building Products, Inc.	● 74.68
FITB	Fifth Third Bancorp	● 74.07
COP	ConocoPhillips	● 74.01
TCF	TCF Financial Corporation	● 73.92

## Most Selections Since Inception

Ticker	Name	Times
AAPL	Apple Inc.	18
MSFT	Microsoft Corporation	13
CACC	Credit Acceptance Corporation	12
ULTA	Ulta Beauty Inc	11
EOG	EOG Resources, Inc.	8
DIS	Walt Disney Company	7
NUE	Nucor Corporation	7
HXL	Hexcel Corporation	6
M	Macy's Inc	6
DLB	Dolby Laboratories, Inc. Class A	6
FB	Facebook, Inc. Class A	5
COP	ConocoPhillips	5
OXY	Occidental Petroleum Corporation	5
TXN	Texas Instruments Incorporated	5
TSCO	Tractor Supply Company	5
TER	Teradyne, Inc.	5
ZAGG	Zagg Inc	5
WIRE	Encore Wire Corporation	4
PAYX	Paychex, Inc.	4
MAIN	Main Street Capital Corporation	4

Sources: FactSet, MarketGrader.com