

# **Dynamic Model Portfolios**



1Q 2016





#### Firm Overview:

ETF Global® (ETFG®) is a leading provider of data, research, investment decision support applications, proprietary risk analytics, educational offerings and investment solutions for Exchange-Traded-Products. ETF Global offers its Dynamic ETF Model Portfolios using ETF Global quantitative research. The firm provides four risk-based portfolios with the ability to tailor these portfolios to meet client needs.

### ETFG Dynamic Model Portfolio Program:

Each ETFG Dynamic Portfolio is comprised of the top ETFs ranked by the ETF Global Quant model and the firm's Research Advisory Board.

The universe of U.S. Listed, equity ETFs is reviewed by the ETFG Quant model and the RAB and represents the broadest range of industry groups, sectors and geographic regions.

### **Key Factors:**

- > Dynamic Selection Process
- ➤ Algorithm Generated Smart Beta Models
- Risk-Adjusted Portfolios
- > Portfolio Flexibility to Meet Client Needs

### Portfolios to Meet Client Needs:



### The ETFG® Quant Research Model:

The ETFG Quant model assigns a daily ranking to all relevant products using proprietary algorithms and employing dozens of industry metrics to gauge how likely an ETF will outperform the market in the foreseeable future. The selection pool includes all U.S. Listed, equity Exchange-Traded-Funds and excludes all levered and inverse funds.

With roots in Machine Learning, 2016 marks a quantum leap for the firm as it deploys its first elements of Deep Learning Artificial Neural Networks within the ETFG® Ouant Model.

The ETFG Quant model has four primary drivers:

#### I. Behavioral

<u>Technical</u> – We look at a broad spectrum of technical indicators and each factor is evaluated on a short, intermediate and long-term basis:

- Momentum: Captures the speed of price changes. This is the "wind at your back" factor. It captures the tendency for rising prices to persist in the future.
- Over/Under Bought: Measures how far "stretched" a product's move is and is based on the "regression to the mean" theory.
- <u>Strength</u>: Determines if there is a higher likelihood of persistence in a price move.

<u>Sentiment</u> – This uses market based data to quantify how investors view or feel about the market. Each factor is measured and then weighted to get a single ranking value.

- Put/Call Ratio: This is the ratio of Puts to Calls using opening transactions. As the number of puts increases relative to calls, investors are saying that they think the market will decrease in value.
- Short Interest: When a stock is shorted, the investor borrows stock that they do not own and sells it in the market. The investor hopes to buy it back at a lower price to repay the loan thereby wagering that the stock will decrease in value. Contrarian in nature, the higher the Short Interest the more unlocked, upside may exist.

## ETF GLOBAL® DYNAMIC MODEL PORTFOLIOS

### **Investment Process - continued:**

#### The ETFG Quant Model - continued:

Implied Volatility: This is a proprietary model that estimates the future volatility of the product. The process first employs a model free formula to extract what investors think the future volatility of a security will be. This data is primarily driven by current option prices. If satisfactory option data is unavailable or products do not offer options, a number of statistical processes are used to compute future volatility from additional data points.

#### II. Fundamental

The fundamental score consists of 4 primary factors. We are able to aggregate these ratios for the underlying equity holdings of the ETF and roll those up to generate the ETF level data point. These weighted data points are then scored and ranked based on short and long term views.

- Price/Earnings
- Price/Cash Flow
- Price/Book Value
- > Yield

### **III. Global Themes**

This is a qualitative rank that ETFG assigns to sectors and a number of countries based on a general "Global Macro" view. This ranking allows ETFG to over/under weight specific areas based on a few global themes that ETFG views as having significant long-term impact on the markets. The Global Macro view includes:

- Debt/GDP Ratio
- Inflation Expectations
- Unemployment
- Business Cycle Evaluation

### IV. Quality

This ranking reflects both the efficiency and quality of the ETF in question and is based upon 3 factors:

- Liquidity: This is a measure of implicit and explicit liquidity and includes both Bid/Ask spread and volume of the ETF. This measure also allows investors to gauge how their trading might impact the price of the specific ETF. The higher the rank, the easier it should be for an investor to trade the security and to lower any implicit costs.
- Diversification: This measures how diversified an ETF is and the overall variance of the constituents. The diversification impacts the volatility of the ETF and reduces potential unwanted, hidden exposures. Although not always the case, the general view is that the greater the diversification the better the ETF is structured and the smoother the path of returns.
- Sponsor Firm: This is a qualitative gauge of the quality of the sponsor of the ETF. Factors considered in this ranking include market position of the firm, size of the firm, ability to support losses and firm history. A wellfunded, established firm will rank higher than a startup firm just getting into the industry.

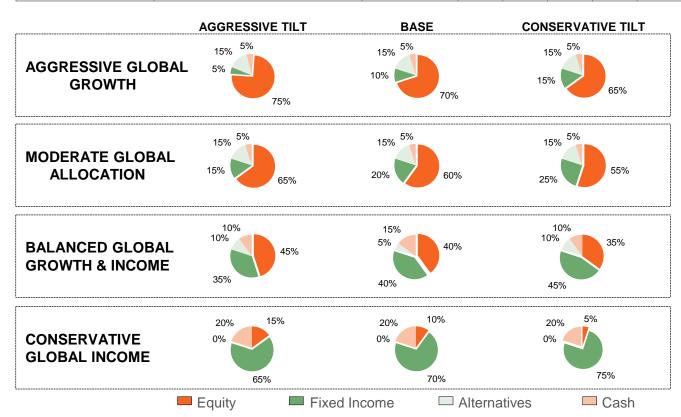






### Model Portfolio Profiles:

Portfolio	Investment	Time	Asset Allocation					
Portiono	Objective	Horizon	Equity	Bonds	Alts	Cash	Total	
Aggressive Global Growth	Provide Long Term Growth	10-15 Years	70%	10%	15%	5%	100%	
Moderate Global Allocation	Provide High Total Return	7-9 Years	60%	20%	15%	5%	100%	
Balanced Global Growth & Income	Provide Balance of Growth and Income	5-7 years	40%	40%	5%	15%	100%	
Conservative Global Income	Provide Primarily Current Income	3-5 Years	10%	70%	0%	20%	100%	



#### Portfolio Construction:

- Portfolio strategy allows for a tilt to fine tune client needs
- ➤ 12 Unique Portfolios: 4 Base Portfolios and 8 Additional Asset Allocation "Tilts"
  - Aggressive or Conservative Tilt via 5% Increase or Decrease from Equities to Fixed Income
- ➤ Each portfolio may include securities in four Asset Classes (Equities, Fixed Income, Alternatives & Cash)
- Portfolios target 10-15 holdings
- Revised and rebalanced quarterly
- > Rebalance holdings to correct asset allocation
- ➤ Rebalance existing positions to return to "Target" weights

### **Portfolio Constraints:**

- All selected ETFs must have \$25M in AUM.
- Not more than 10% in any one product
- Not more than 20% in any one Sector
- ➤ Not more than 60% in foreign investments
- > Other than U.S., not more than 15% in one country
- ➤ Not more than 2 single country products
- At least one multi-country product in Non-US sleeves



**Current Four "Base" Portfolios:** Rebalanced 1/7/16

Ag	Aggressive Global Growth - 1Q 2016				Tilt: Base				
Ticker	Exchange Traded Fund	Weighting	Asset Class	Region	ETFG Risk	ETFG Reward	ETFG Quant		
EEM	iShares MSCI Emerging Markets	7.0	Equity	Emerging Markets	4.88	7.76	65.60		
EPP	iShares MSCI Pacific ex-Japan	10.0	Equity	Asia-Pacific	4.70	7.71	65.20		
EWA	iShares MSCI Australia	6.0	Equity	Asia-Pacific	4.08	8.41	69.80		
EWY	iShares MSCI South Korea	5.5	Equity	Asia-Pacific	4.18	8.37	68.90		
FNK	First Trust Mid Cap Value AlphaDEX	7.5	Equity	North America	3.66	7.44	64.90		
FYT	First Trust Small Cap Value AlphaDEX	8.0	Equity	North America	3.46	8.07	68.20		
IDLV	PowerShares S&P International Developed Low Volatility	10.0	Equity	Developed Markets	3.03	7.46	65.40		
PXSV	PowerShares Fundamental Pure Small Value	8.0	Equity	North America	3.47	8.45	67.30		
SCHA	Schwab U.S. Small-Cap	8.0	Equity	North America	2.60	7.91	67.30		
BNDX	Vanguard Total International Bond Index ETF	2.0	Fixed Income	Global Ex-U.S.	2.09	0.00	0.00		
IEF	iShares Barclays 7-10 Year Treasury Bond	5.0	Fixed Income	North America	3.35	0.00	0.00		
LQD	iShares iBoxx \$ Investment Grade Corporate Bond	3.0	Fixed Income	North America	3.48	0.00	0.00		
DBV	PowerShares DB G10 Currency Harvest	5.0	Currency	Developed Markets	3.89	0.00	0.00		
FTGC	First Trust Global Tactical Commodity Strategy Fund ETF	5.0	Commodities	Global	4.89	0.00	0.00		
SCHH	Schwab U. S. REIT	5.0	Real Estate	North America	3.34	0.00	0.00		
Cash	Cash	5.0	Cash	North America	NA	NA	NA		

Moderate Global Allocation - 1Q 2016				Tilt: Base				
Ticker	Exchange Traded Fund	Weighting	Asset Class	Region	ETFG Risk	ETFG Reward	ETFG Quant	
EEM	iShares MSCI Emerging Markets	6.0	Equity	Emerging Markets	4.88	7.76	65.60	
EPP	iShares MSCI Pacific ex-Japan	10.0	Equity	Asia-Pacific	4.70	7.71	65.20	
EWA	iShares MSCI Australia	7.0	Equity	Asia-Pacific	4.08	8.41	69.80	
FYT	First Trust Small Cap Value AlphaDEX	10.0	Equity	North America	3.46	8.07	68.20	
IDLV	PowerShares S&P International Developed Low Volatility	10.0	Equity	Developed Markets	3.03	7.46	65.40	
PXSV	PowerShares Fundamental Pure Small Value	10.0	Equity	North America	3.47	8.45	67.30	
SCHA	Schwab U.S. Small-Cap	7.0	Equity	North America	2.60	7.91	67.30	
BNDX	Vanguard Total International Bond Index ETF	4.0	Fixed Income	Global Ex-U.S.	2.09	0.00	0.00	
IEF	iShares Barclays 7-10 Year Treasury Bond	10.0	Fixed Income	North America	3.35	0.00	0.00	
LQD	iShares iBoxx \$ Investment Grade Corporate Bond	6.0	Fixed Income	North America	3.48	0.00	0.00	
DBV	PowerShares DB G10 Currency Harvest	5.0	Currency	Developed Markets	3.89	0.00	0.00	
FTGC	First Trust Global Tactical Commodity Strategy Fund ETF	5.0	Commodities	Global	4.89	0.00	0.00	
SCHH	Schwab U. S. REIT	5.0	Real Estate	North America	3.34	0.00	0.00	
Cash	Cash	5.0	Cash	North America	NA	NA	NA	



### Current Four "Base" Portfolios: Rebalanced 1/7/16

Balanced Global Growth & Income - 1Q 2016			Tilt: Base				
Ticker	Exchange Traded Fund	Weighting	Asset Class	Region	ETFG Risk	ETFG Reward	ETFG Quant
EEM	iShares MSCI Emerging Markets	4.0	Equity	Emerging Markets	4.88	7.76	65.60
EPP	iShares MSCI Pacific ex-Japan	7.0	Equity	Asia-Pacific	4.70	7.71	65.20
EWA	iShares MSCI Australia	4.0	Equity	Asia-Pacific	4.08	8.41	69.80
FYT	First Trust Small Cap Value AlphaDEX	6.0	Equity	North America	3.46	8.07	68.20
IDLV	PowerShares S&P International Developed Low Volatility	7.0	Equity	Developed Markets	3.03	7.46	65.40
PXSV	PowerShares Fundamental Pure Small Value	6.0	Equity	North America	3.47	8.45	67.30
SCHA	Schwab U.S. Small-Cap	6.0	Equity	North America	2.60	7.91	67.30
BNDX	Vanguard Total International Bond Index ETF	8.0	Fixed Income	Global Ex-U.S.	2.09	0.00	0.00
IEF	iShares Barclays 7-10 Year Treasury Bond	8.0	Fixed Income	North America	3.35	0.00	0.00
LQD	iShares iBoxx \$ Investment Grade Corporate Bond	6.0	Fixed Income	North America	3.48	0.00	0.00
SCHO	Schwab Short-Term U. S. Treasury	8.0	Fixed Income	North America	2.25	0.00	0.00
SCPB	SPDR Barclays Capital Short Term Corporate Bond	6.0	Fixed Income	North America	1.57	0.00	0.00
VMBS	Vanguard Mortgage-Backed Securities	4.0	Fixed Income	North America	1.99	0.00	0.00
FTGC	First Trust Global Tactical Commodity Strategy Fund ETF	2.5	Commodities		4.89	0.00	0.00
Cash	Schwab U. S. REIT  Cash	2.5 15.0	Real Estate Cash	North America  North America	3.34 NA	0.00 NA	0.00 NA

Conservative Global Income - 1Q 2016				Tilt: Base				
Ticker	Exchange Traded Fund	Weighting	Asset Class	Region     -		ETFG Reward	ETFG Quant	
FYT	First Trust Small Cap Value AlphaDEX	5.0	Equity	North America	3.46	8.07	68.20	
IDLV	PowerShares S&P International Developed Low Volatility	5.0	Equity	Developed Markets	3.03	7.46	65.40	
BNDX	Vanguard Total International Bond Index ETF	7.0	Fixed Income	Global Ex-U.S.	2.09	0.00	0.00	
BWX	SPDR Barclays Capital International Treasury Bond	7.0	Fixed Income	Global Ex-U.S.	3.50	0.00	0.00	
IEF	iShares Barclays 7-10 Year Treasury Bond	10.0	Fixed Income	North America	3.35	0.00	0.00	
LQD	iShares iBoxx \$ Investment Grade Corporate Bond	5.0	Fixed Income	North America	3.48	0.00	0.00	
scно	Schwab Short-Term U. S. Treasury	10.0	Fixed Income	North America	2.25	0.00	0.00	
SCPB	SPDR Barclays Capital Short Term Corporate Bond	10.0	Fixed Income	North America	1.57	0.00	0.00	
TLT	iShares Barclays 20+ Year Treasury Bond	7.0	Fixed Income	North America	4.73	0.00	0.00	
VCIT	Vanguard Intermediate-Term Corporate Bond	6.0	Fixed Income	North America	3.16	0.00	0.00	
VMBS	Vanguard Mortgage-Backed Securities	8.0	Fixed Income	North America	1.99	0.00	0.00	
Cash	Cash	20.0	Cash	North America	NA	NA	NA	

## ETF GLOBAL® DYNAMIC MODEL PORTFOLIOS

### **Program Director:**

#### Chris Romano

Chris Romano is the Director of Research at ETF Global and is a member of the ETFG Research Advisory Board. Chris oversees the development of all ETFG research models and applications.

Chris has extensive experience within investment research having served as the Director of Research and Trading Strategies for Fusion Investment Management Group, an institutional money management firm. As part of this experience, Chris led the design of quantitative models and the development of trading processes and systems for the firm. Chris began his career in the systems administration and brokerage support areas.

Chris obtained his Bachelor of Science degree in Information Science with a minor in Business from the University of Pittsburgh where he graduated Magna Cum Laude. Chris has earned the Chartered Financial Analyst (CFA) designation and is a member of the CFA Institute as well as the CFA Society of Pittsburgh.

### **Contact Information:**

#### New York Office - Administration:

6 East 39th Street Suite 1003

New York, New York, 10016

Phone: (212) 223-3834

Email: support@etfg.com

URL: www.etfg.com

### Pittsburgh Office - Research:

Allegheny Building

425 Forbes Avenue - Suite 300

Pittsburgh, PA 15219

Phone: (412) 407-4444

Email: research@etfg.com

URL: www.etfg.com



Disclaimer: Assumptions, opinions and estimates constitute our judgment as of the date of this material and are subject to change without notice. ETF Global LLC ("ETFG") and its affiliates and any third-party providers, as well as their directors, officers, shareholders, employees or agents (collectively ETFG Parties) do not guarantee the accuracy, completeness, adequacy or timeliness of any information, including ratings and rankings and are not responsible for errors and omissions or for the results obtained from the use of such information and ETFG Parties shall have no liability for any errors, omissions, or interruptions therein, regardless of the cause, or for the results obtained from the use of such information. ETFG PARTIES DISCLAIM ANY AND ALL EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO ANY WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. In no event shall ETFG Parties be liable to any party for any direct, indirect, incidental, exemplary, compensatory, punitive, special or consequential damages, costs, expenses, legal fees, or losses (including, without limitation, lost income or lost profits and opportunity costs) in connection with any use of the information contained in this document even if advised of the possibility of such damages. ETFG ratings and rankings are statements of opinion as of the date they are expressed and not statements of fact or recommendations to purchase, hold, or sell any securities or to make any investment decisions. ETFG ratings and rankings should not be relied on when making any investment or other business decision. ETFG's opinions and analyses do not address the suitability of any security. ETFG does not act as a fiduciary or an investment advisor. While ETFG has obtained information from sources they believe to be reliable, ETFG does not perform an audit or undertake any duty of due diligence or independent verification of any information it receives. ETFG keeps certain activities of its business units separate from each other in order to preserve the independence and objectivity of their respective activities. As a result, certain business units of ETFG may have information that is not available to other ETFG business units. ETFG has established policies and procedures to maintain the confidentiality of certain non-public information received in connection with each analytical process. ETFG may receive compensation for its ratings and certain analyses. ETFG reserves the right to disseminate its opinions and analyses. At times, ETFG's public ratings and analyses are made available on its Websites, www.etfg.com (free of charge) and may be distributed through other means, including via ETFG publications and third party redistributors. This material is not intended as an offer or solicitation for the purchase or sale of any security or other financial instrument. Securities, financial instruments or strategies mentioned herein may not be suitable for all investors. Any opinions expressed herein are given in good faith, are subject to change without notice, and are only correct as of the stated date of their issue. Prices, values, or income from any securities or investments mentioned in this report may fall against the interests of the investor and the investor may get back less than the amount invested. Where an investment is described as being likely to yield income, please note that the amount of income that the investor will receive from such an investment may fluctuate. Where an investment or security is denominated in a different currency to the investor's currency of reference, changes in rates of exchange may have an adverse effect on the value, price or income of or from that investment to the investor. The information contained in this report does not constitute advice on the tax consequences of making any particular investment decision. This material does not take into account your particular investment objectives, financial situations or needs and is not intended as a recommendation of particular securities, financial instruments or strategies to you nor is it considered to be investment advice. Before acting on any recommendation in this material, you should consider whether it is suitable for your particular circumstances and, if necessary, seek professional advice

