



GVA's Advantaged Subset: Consistent Across Markets

How consistent is GVA's Advantaged Subset when run against various equity categories?

GVA's proprietary model has been run against multiple equity categories with similar results. As a reminder, the model searches the globe for liquid companies with the following four attributes:

1. Average Free Cash Flow over the last 7 years in the top 20%.
2. Average Shareholder Yield over the last 7 years in the top 20%.
3. Balance sheets in the top 80%, based on debt to equity.
4. Valuation in the cheapest 20%, based on a weighted average of 6 basic metrics.

We believe focusing on companies that are Free Cash Flow positive and return cash to shareholders, results in a structurally advantaged subset of the universe. GVA currently offers the following equity strategies: Global Equity, International Small Cap, and Emerging Markets. However, the message is very consistent when looking at model results across different equity categories. Each model back-test produces:

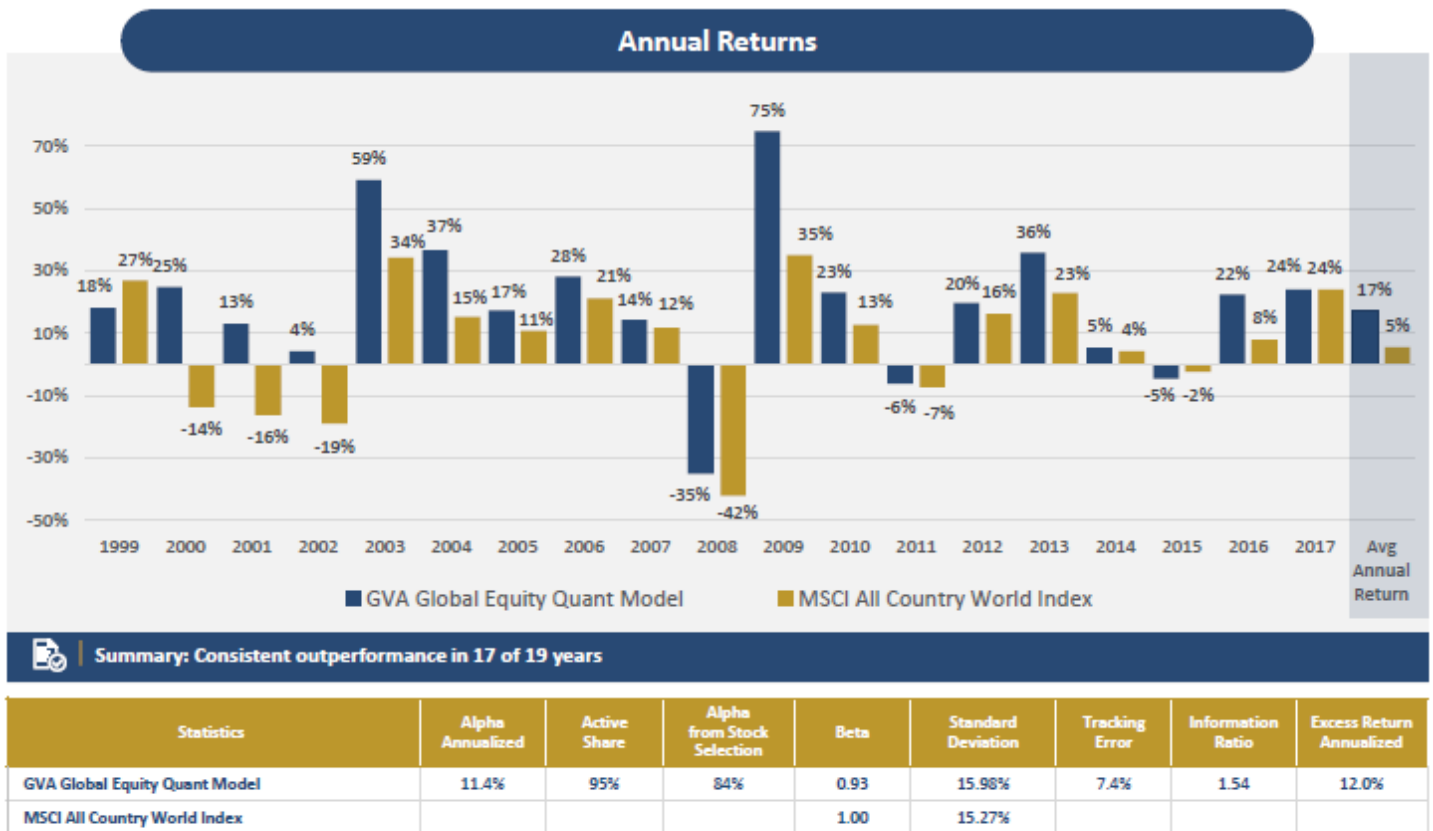
- High annualized alpha
- High active share
- Alpha comes from stock selection
- Modest tracking error
- Desirable information ratios
- Risk metrics (beta and standard deviation) close to the benchmark

Time Period	Market Back-tested*	Alpha from					Excess return annualized	Beta	Standard deviation for benchmark	Standard deviation for benchmark	
		Alpha annualized	Active share	stock selection	Tracking error	Information ratio					
12/31/1999-12/31/2017	Global All Cap	11.4%	95%	84%	7.4%	1.5	12.0%	0.93	1.00	16.0%	15.3%
12/31/2004-06/30/2018	International Small Cap ex-US	7.9%	95%	88%	7.0%	1.3	8.9%	1.04	1.00	20.0%	18.1%
12/31/2000-12/31/2018	Emerging Market	10.7%	94%	91%	8.4%	1.3	11.2%	0.93	1.00	21.8%	21.6%
12/31/1999-12/31/2017	International Small Cap Developed	11.4%	94%	88%	8.0%	1.5	11.6%	0.88	1.00	19.2%	17.6%
12/31/2004-12/31/2017	International Small Cap Emerging Markets	10.2%	97%	90%	7.8%	1.4	10.8%	0.93	1.00	22.4%	22.7%
06/30/1999-12/31/2017	EAFE+ (EAFE plus Emerging Markets)	8.5%	93%	85%	6.7%	1.3	9.0%	1.00	1.00	18.3%	17.0%
Average		10.0%	95%	88%	7.6%	1.4	10.6%	0.95	1.00	19.6%	18.7%

Source: Factset model back-test results for each region. Contact GVA for details.

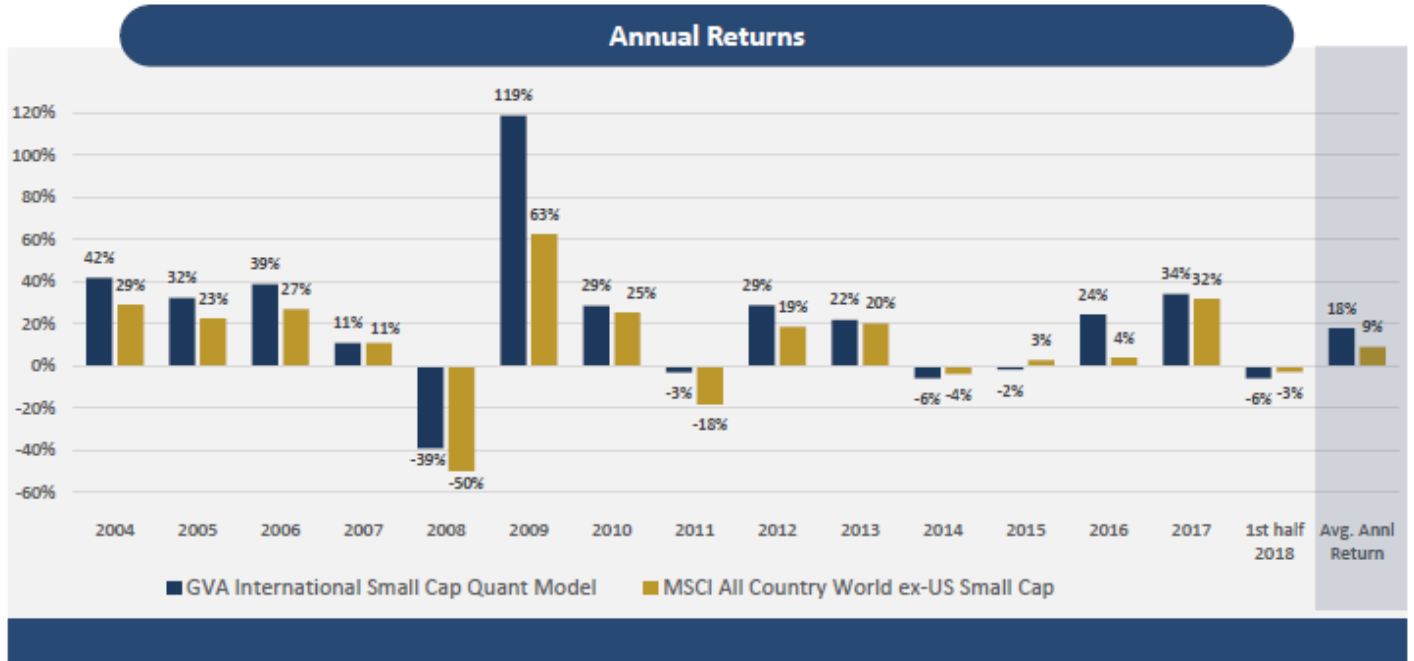
The full back-tested model* output for each product back-test is below:

Back Test: GVA Global Equity Quant Model*



*Source: FactSet – (Aug 2018) GVA Global Equity Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses.

Back Test: GVA International Small Cap Quant Model*

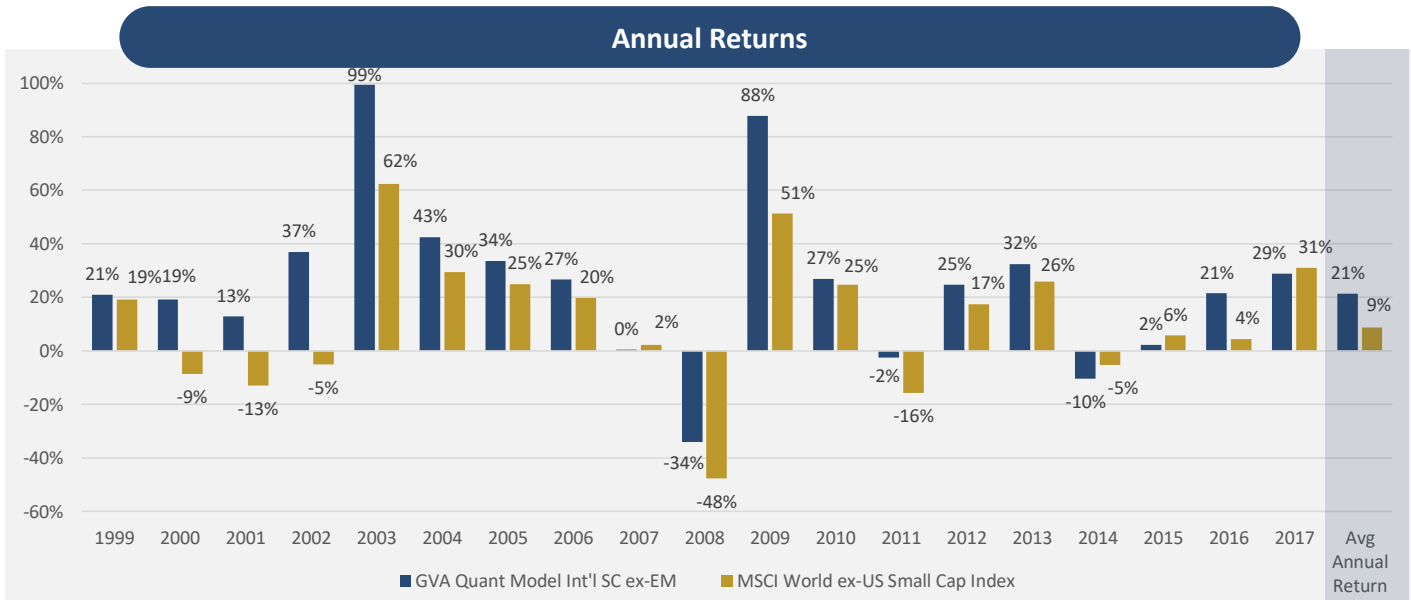


Statistics	Alpha Annualized	Active Share	Alpha from Stock Selection	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized
GVA International Small Cap Quant Model	7.9%	95%	88%	1.04	20.0%	7.0%	1.30	8.9%
MSCI ACWI ex US Small Cap Index				1.00	18.1%			

*Source: FactSet – (Aug. 2018) GVA International Small Cap Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses.

Back Test: GVA International Small Cap Quant Model Developed*

Developed Markets ONLY (ex-Emerging Markets)

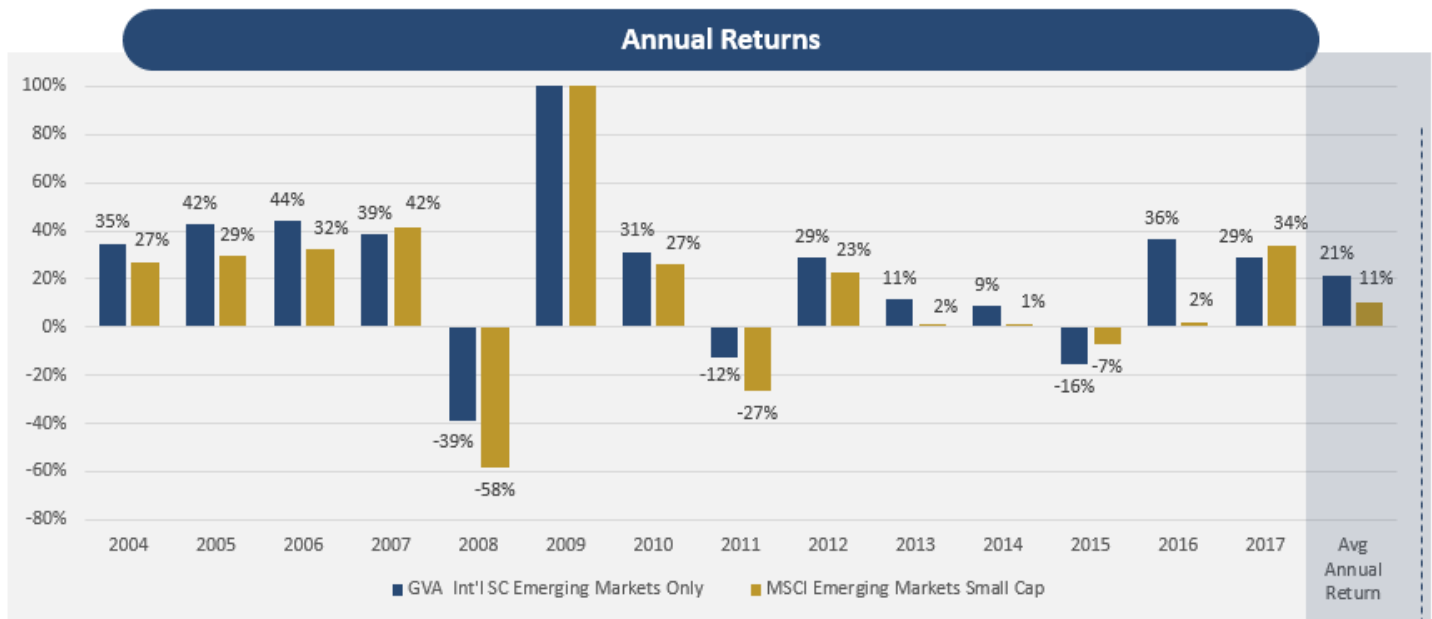


Summary: Consistent outperformance in 16 of 19 years

Statistics	Alpha Annualized	Active Share	Alpha from Stock Selection	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized
GVA International Small Cap Quant Model Developed	11.4%	94%	88%	0.98	19.2%	8.0%	1.45	11.6%
MSCI World ex US Small Cap Index				1.00	17.6%			

*Source: FactSet – GVA International Small Cap Quant Model Developed back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses.

Back Test: GVA International Small Cap Quant Model Emerging Mkts * *Emerging Markets Only*

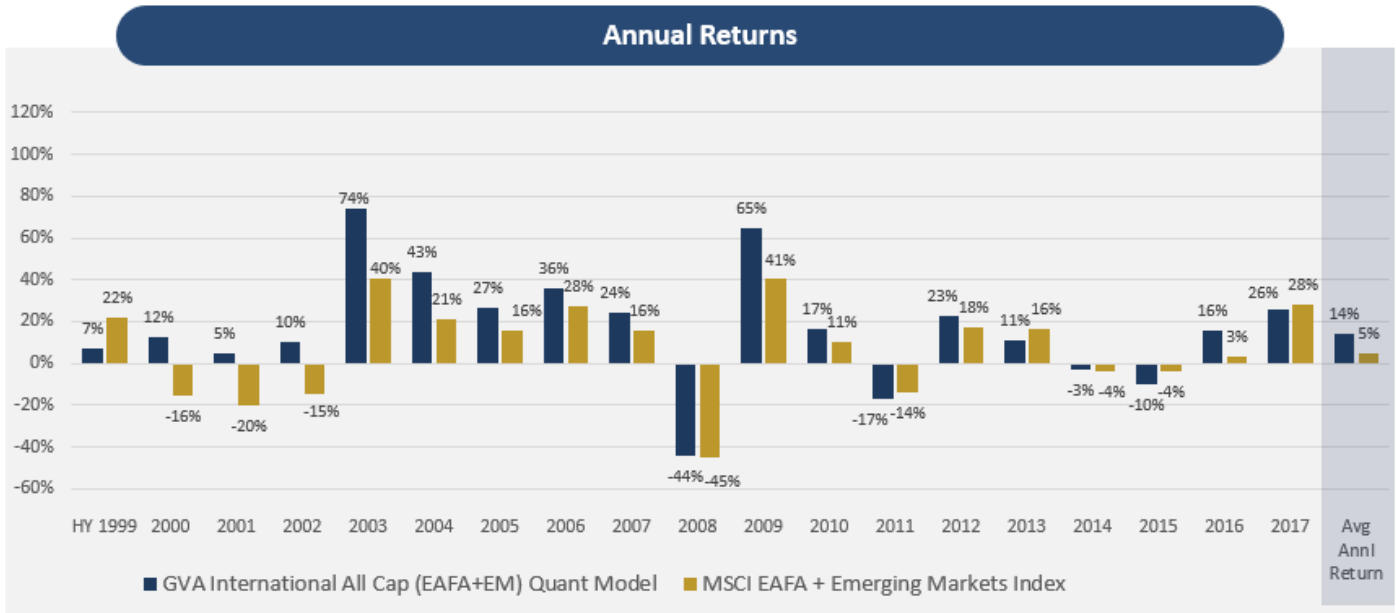


Summary: Consistent outperformance in 16 of 19 years

Statistics	Alpha Annualized	Active Share	Alpha from Stock Selection**	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized
GVA Int'l Small Cap Quant Model EM Only	10.2%	97%	90%	0.93	22.4%	7.8%	1.38	10.8%
MSCI Emerging Markets Small Cap Index				1.00	22.7%			

*Source: FactSet – GVA International Small Cap Emerging Markets Only Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses. ** Average of country level attribution (76%) and sector attribution (104%).

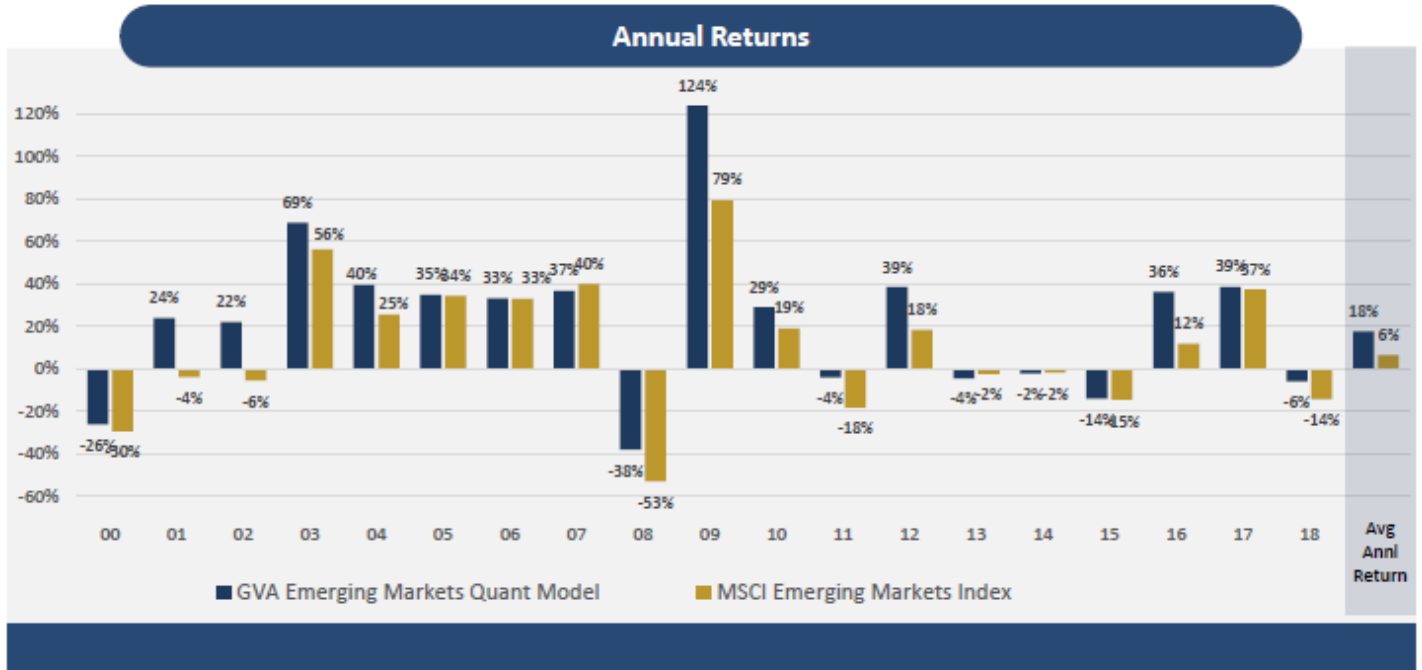
Back Test: GVA International All Cap (EAFE + EM) Quant Model*



Statistics	Alpha Annualized	Active Share	Alpha from Stock Selection	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized
GVA International All Cap (EAFE+EM) Quant Model	8.5%	93%	85%	1.00	18.3%	6.7%	1.30	9.0%
MSCI EAFE + Emerging Markets Index				1.00	17.0%			

*Source: FactSet – (Aug. 2018) GVA International All Cap (EAFE+EM) Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses.

Back Test: GVA Emerging Markets Quant Model*

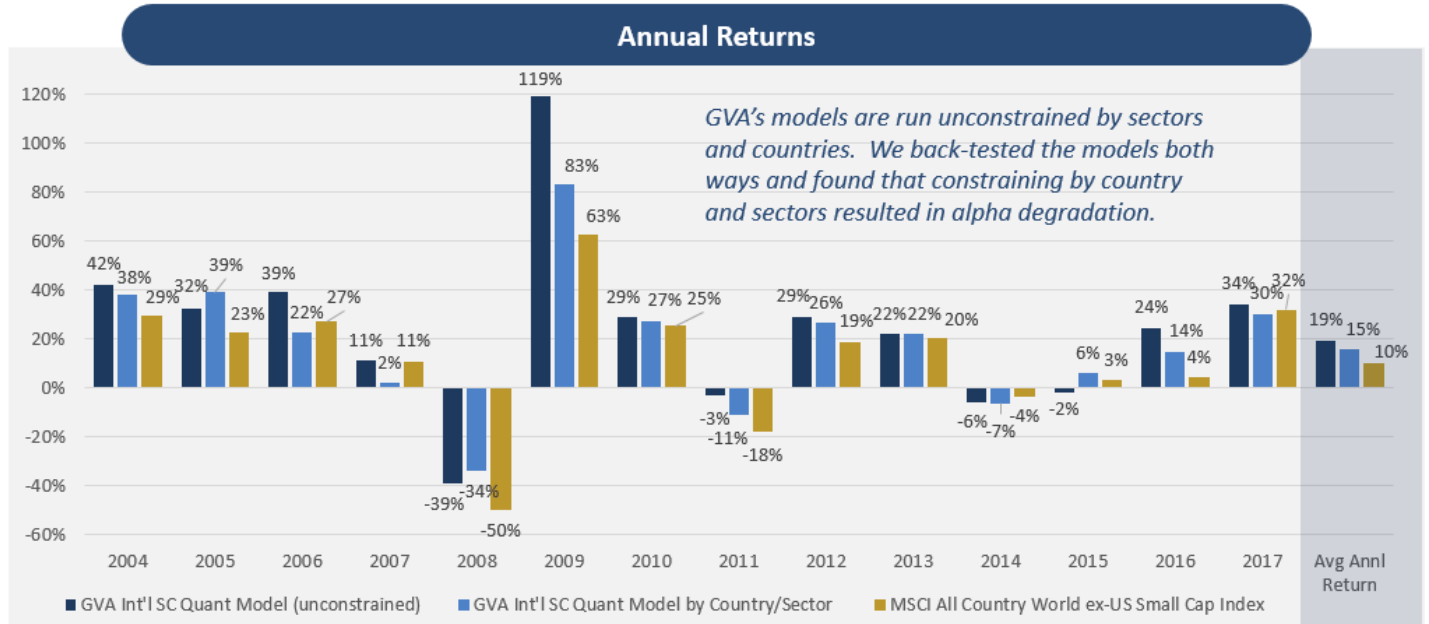


Statistics	Alpha Annualized	Active Share	Alpha from Stock Selection	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized
GVA Emerging Markets Quant Model Back-test	10.7%	94%	91%	0.93	21.8%	8.4%	1.33	11.2%
MSCI Emerging Markets Index				1.00	21.6%			

*Source: FactSet – (Dec. 2018) GVA Emerging Markets Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses.

Back Test: GVA International Small Cap Quant Model ^{*}

CONSTRAINING BY COUNTRY & SECTORS



Statistics	Alpha Annualized	Active Share	Beta	Standard Deviation	Tracking Error	Information Ratio	Excess Return Annualized*
GVA International Small Cap Quant Model (unconstrained)	8.4%	95%	1.03	20.2%	7.1%	1.35	9.6%
GVA Int'l Small Cap Quant Model by Country/Sector	5.6%	95%	0.96	18.5%	5.8%	0.89	5.2%
MSCI All Country World ex-US Small Cap Index			1.00	18.3%			

*Source: FactSet – (Aug 2018) GVA International Small Cap Quant Model back test results are hypothetical and involve inherent limitations, please see disclosures at the end of this presentation. Results do not reflect fees or expenses. Each company is ranked against only companies within the same country and sector in Q1 “Blue Line” Quadrant in the liquid universe. Portfolio Construction does not change. Quantiles are market cap weighted in both models.

GVA Quant Model Process and Back-Test Methodology

Creation of the GVA Quant Model

We come from a background of Global Value investing, where companies are typically screened on the cheapest 20% of stocks in the world. Then, an investment team systematically digs through individual names to find candidates to conduct the full fundamental analysis on. There are several limitations with running a strictly Value-based quant model, with two of the main challenges to this approach being: 1) There are a lot of poor quality companies within the cheapest 20% pool, and 2) It is fairly time consuming for analysts and portfolio managers to weed through each individual name to find high quality investment candidates.

Our quant model was designed to address these weaknesses in defining a subset of our global universe that is structurally made of better companies. As fundamental value investors that have evaluated businesses globally through many economic cycles, we have identified three attributes that define this better pool: companies that have 1) strong balance sheets, 2) high and consistent FCF generation, and 3) a track record of positive shareholder returns. Our quantitative process is intersecting the cheapest 20% companies with that better pool.

While quantitative models typically try to generate the best risk return profile in combining a large amount of inputs, our quant model is a very intuitive fundamentally driven methodology that relies on a limited number of inputs.

Why is the GVA Quant Model attractive?

By incorporating the three attributes into the quant model, we can solve both of the main challenges listed above: 1) Poor quality companies are weeded out, and 2) The time it takes for the investment team to identify investment candidates is narrowed dramatically. The back-test results of our current quant model are also superior to a standard value model, and do so with attractive risk characteristics. We are picking from a “much better pool,” making the odds of outperforming higher and the use of team member’s time much more efficient.

Platform: GVA uses FactSet’s Alpha Testing application to generate its quantitative model and to analyze its output. The Alpha Testing application is an enterprise software offering with advanced modeling capabilities for creating, fractiling and back-testing factors. The software also provides robust reporting for statistical analysis of the quant model output.

Quant Model Universe: The GVA quant model uses the monthly MSCI All Country World Index, MSCI All Country World ex US Small Cap Index, and the MSCI Emerging Markets Index constituents as the available set of securities for each period, which are sourced from MSCI.

Financial Data: The quant model uses trailing twelve month financial statement data that is sourced from the FactSet Fundamentals database. The quant model applies a date lag for each data item to avoid look-ahead bias.

Managing Quant Modeling Mistakes

- **Overfitting:** The quant model uses a limited number of simple factors applied to a significant population size. Overfitting generally occurs with too many (and/or overly complex) factors, and with an insufficient sample size. Also, when running the quant model against various equity universes (global all cap, international all cap, international small cap and emerging), the back-tests perform consistently.
- **Survivorship Bias:** Our quant-model universe consists of historical index constituents, thus eliminating any survivorship bias.
- **Look-ahead Bias:** Our back-test applies a date lag to all factors used in the quant model to ensure that each observation period only uses financials that had been reported as of the observation date. The lagged back-test juxtaposed to a non-lagged back-test clearly indicates a significant bias is removed by lagging the dates.

***GVA Backtest Disclosure:**

The information presented in the presentation represents back-tested performance based on the GVA Proprietary Model (the “Model”) and does not include qualitative analysis or portfolio manager selections. The performance results shown represent a larger group of stocks than would be included if qualitative analysis was applied. Our Model narrows down our universe to approximately 125-175 stocks and then we conduct fundamental analysis in order to determine inclusion in the portfolio. The strategy being offered includes both the quantitative and qualitative analysis together however performance shown in the back-test only reflects the quantitative portion of analysis as the qualitative analysis cannot be applied retroactively. Back-tested presentations may not be relied upon for investment purposes and are not meant to represent actual current or future performance.

The Model is described on a previous slide. For more details on the Model please contact info@globalvalueadv.com. Back-tested performance is hypothetical (it does not reflect trading in actual accounts) and is provided for informational purposes only to indicate historical performance had the portfolios been available over the relevant time period. Securities were selected with the full benefit of hindsight, after their performance over the period shown was known. There are inherent limitations of data derived from retroactive application of a model portfolio. The results may not reflect the impact that any material market or economic factors might have had on GVA’s use of the back-test Model if the Model had been used during the period to actually manage client assets. GVA was not managing money during the period tested. For comparison purposes, the GVA International Small Cap Model performance is measured against the MSCI All Country World ex-US Small Cap Index, the GVA Global Equity Model performance is measured against the MSCI All Country World Index, and the GVA Emerging Markets Model performance is measured against the MSCI Emerging Markets Index.. Results in back-test do not guarantee future results.

The Model identifies companies with positive free cash flows, that have positive total return to shareholders, excludes companies whose leverage is in the highest 20% of the starting universe, are the cheapest 20% of the starting universe and illiquid companies are eliminated. Foreign exchange is implicit in the total return. The Model assumes it is fully invested with no cash and includes the reinvestment of all income. The U.S. dollar is the currency used to express performance. All returns are presented gross of investment management fees, trading costs, and all other costs, expenses and commissions associated with client account trading. As there are no fees or expenses deducted, actual client returns could be materially different. The client may experience a loss.

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