

StarMine Performance Report

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About this document

This report details the performance of the StarMine Analyst Revisions Model (ARM), StarMine Earnings Quality Model (EQ), StarMine Intrinsic Valuation Model (IV), StarMine Relative Valuation Model (RV), StarMine Price Momentum Model (Price Mo), StarMine Valuation-Momentum Model (Val-Mo), StarMine Smart Holdings Model (SH), StarMine Short Interest Model (SI), StarMine Insider Filings Model, StarMine MarketPsych Media Sentiment (MMS) and StarMine Combined Alpha Model (CAM) for May 2023 and the trailing twelve months.

Update on ARM 1.1

For performance beginning in May 2022, the ARM model monthly performance is based on signals from ARM 1.1. This updated version of the model uses the same algorithm but incorporates higher frequency data sources and an increased universe. The historical testing of this model shows results that are highly correlated to ARM 1.0 with slightly improved performance likely due to the more timely inputs. A detailed review of ARM 1.0 vs ARM 1.1 performance is available upon request. As of the May 2023 report, the universe selection has been corrected to be same as it was prior to changes made for ARM 1.1 and MMS. The universe is defined as the top N securities from each region / country with at least one StarMine model score. Performance for each model is then compiled for all securities within that universe where scores are available. Additionally, T12M calculations have been updated to use model-specific point-in-time universes.

Executive Summary

STARMINE MODELS

This report details the performance of the StarMine Analyst Revisions Model (ARM), StarMine Earnings Quality Model (EQ), StarMine Intrinsic Valuation Model (IV), StarMine Relative Valuation Model (RV), StarMine Price Momentum Model (Price Mo), StarMine Value-Momentum Model (Val-Mo), StarMine Smart Holdings Model (SH), StarMine Short Interest Model (SI), StarMine Insider Filings Model, and StarMine Combined Alpha Model (CAM) for May 2024 and the trailing twelve months.

StarMine ARM is an estimate revision-based stock ranking system that improves on previous earnings revision models by incorporating more accurate earnings estimates through StarMine's proprietary SmartEstimate earnings prediction service; by utilizing other financial measures in addition to earnings; by including estimates on multiple fiscal periods; and by considering changes in analyst recommendations. For performance beginning in Janaury 2022, the ARM model monthly performance is based on signals from ARM 1.1. This updated version of the model uses the same algorithm but incorporates higher frequency data sources and an increased universe. The historical testing of this model shows results that are highly correlated to ARM 1.0 with slightly improved performance likely due to the more timely inputs. A detailed review of ARM 1.0 vs ARM 1.1 performance is available upon request.

StarMine EQ identifies companies that are likely to experience especially high or low earnings sustainability over the subsequent twelve months, based on decompositions of past earnings into sustainable and non-sustainable components.

StarMine IV identifies systematic biases in analyst earnings forecasts and leverages these findings to deliver an intelligent stream of EPS estimates called SmartGrowth earnings projections. SmartGrowth earnings projections significantly improve forecast accuracy and stock ranking ability and lead to more reliable equity valuation analyses.

StarMine RV intelligently combines information from six powerful valuation ratios – Earnings/Price, Cash Flow/Price, EBITDA/EV, Sales/EV, Book/Price, and Dividends/Price – plus share buyback activity into a single comprehensive measure of relative valuation. The model seamlessly blends information from both reported actuals and analyst estimates via StarMine's SmartEstimate and combines the valuation ratios in a weighting scheme that ensures the most important ratios for a given stock have the greatest influence in the final score.

StarMine Price Mo is a comprehensive measure of momentum in security returns. StarMine Price Mo combines information from multiple dimensions of price momentum – from the positive autocorrelation in returns at the 3-12 month time horizon to the negative autocorrelation in returns at short time horizons. StarMine Price Mo also incorporates information on industry-level price momentum and the degree of consistency, or volatility, in prior returns.

StarMine Val-Mo combines StarMine's two valuation models, StarMine Intrinsic Valuation and StarMine Relative Valuation, along with StarMine's two momentum models, the StarMine Analyst Revisions Model and the StarMine Price Momentum, into one powerful stock ranking model.

StarMine Smart Holdings ranks stocks based on the predicted future increase, or decrease, in institutional ownership. At the core of the model is an algorithm that reverse engineers each fund manager's purchasing profile based on the underlying fundamental factors of the companies the fund is buying. Once the profile is determined, the fundamental factors of all global stocks are compared to each fund's purchasing profile to determine the alignment between the stock and the fund, and then aggregated over all funds.

StarMine Short Interest is a U.S. stock ranking model that ranks stocks based on the hypothesis that stocks with high (low) number of shares shorted will under (out) perform. The StarMine Short Interest model intelligently normalizes short interest levels across companies of different market caps, and accounts for well-known arbitrage strategies (merger and dividend) that could affect levels of short interest. Please note that the Short Interest model performance results show up in the U.S. table as this is currently only a U.S. stock ranking model. employs proprietary methodologies to incorporate various types of security and options transactions, while also paying special attention to the timing of those transactions.

StarMine Insider Filings model ranks companies in the U.S. on the basis of the sentiment of company executives and directors about their company stock, as reflected in insider stock transactions and ownership. The model exploits the finding that agreement across insiders as expressed by buying (selling) stock is predictive of company out (under) performance in the coming months. Our intuitive model uses publicly available insider filings to assess two dimensions of insider sentiment: how many insiders are buying or selling company securities, and how much is being bought and sold by insiders. The model employs proprietary methodologies to incorporate various types of security and options transactions, while also paying special attention to the timing of those transactions.

StarMine MarketPsych Media Sentiment (MMS) model ranks companies based on public sentiments expressed across news and social media sources. The inputs are derived from LSEG MarketPsych Analytics covering sentiment on topics such as price expectations, earnings and management. The MMS model optimally combines the inputs to extract value from their distinctive long- and short-term effects.

StarMine's Combined Alpha Model (CAM) combines all available StarMine alpha models in an optimal, static, linear combination. The weights assigned to each model vary by geographic region. CAM takes advantage of the fact that some regions, such as the US and Japan, are more value focused while in Developed Europe and Asia ex-Japan momentum plays a larger role. The model intelligently handles missing data and makes use of all available models for a given security. The StarMine models used in StarMine CAM are Analyst Revisions (ARM), Relative Valuation (RV), Intrinsic Valuation (IV), Price Momentum, Earnings Quality (EQ), Smart Holdings, Insider Filings (US only), and Short Interest (US only).

BENCHMARK MODELS

We compare the StarMine models with appropriate commonly used quantitative factors that would most closely approximate a simple alternative factor used by portfolio managers. The benchmark model for StarMine ARM is a basic revisions model, defined as the percentage change in the current fiscal year (FY1) consensus earnings estimate over the last 30 days based on data from I/B/E/S data from LSEG. We compare the results of StarMine EQ to those of a basic earnings quality model based on total accruals, where total accruals is defined as the year over year change in net operating assets, scaled by total assets. We compare the performance of StarMine IV and StarMine RV to a commonly-used valuation metric, earnings yield. The earnings yield factor utilizes next year's (FY2) consensus EPS estimates where available, else we substitute FY1 EPS estimates. In cases where there are no FY1 or FY2 estimates, we utilize FY0 EPS actuals. The benchmark factor for StarMine's Price Mo model is a basic price momentum factor defined as the trailing 12-month total return. For StarMine Val-Mo, we use an equal-weighted blend of the rank of the benchmark factor associated with each StarMine Val-Mo component. Thus, the StarMine Val-Mo benchmark factor is:

Basic val-mo = 0.5*earnings yield rank + 0.25*basic revisions rank + 0.25*T12m return rank

Since earnings yield is a benchmark factor for two components, it receives a 50% weight in basic val-mo, rather than 25%.

The benchmark model for Smart Holdings is defined as the percent change in number of owners from the previous quarter. The Short Interest benchmark model is defined as the ratio of shares short to shares outstanding and the benchmark for the Insider Filings model is calculated as the ratio of the dollar amount bought to the dollar amount sold by insiders over the preceding 6 months.

The benchmark for the Media Sentiment Model is media sentiment-based price drift. News sentiment from the LSEG MarketPsych Analytics dataset is averaged over the prior 360 days. This sentiment value approximates that derived from alternative sentiment datasets.

The benchmark for the Combined Alpha Model is based on the equal-weighted average of the underlying models' benchmark ranks. The earning yield benchmark rank is incorporated twice in the calculations as it serves as the benchmark factor for two components (IV and RV).

OVERVIEW OF MODEL PERFORMANCE

Global markets continued to rally during the month of May in every regional and country-level market this report tracks, and across all market-cap buckets. The overall market in the U.S. was up 3.6%. Canada increased 1.6%. Developed Europe rose 6.0% and the U.K. added 7.0%. The overall market in Japan appreciated 0.8%. Developed Asia ex-Japan gained 2.7%, with the market in Hong Kong rising 3.9%, Australia in rallying 1.9% and Singapore adding 1.2%. The overall Emerging Markets region appreciated 1.1%. Within Emerging Markets, India was up 3.9%, Taiwan added 3.1%, Korea increased 2.3%, Brazil ended up 0.6% and China tacked on 0.2%.

Like last month, StarMine valuation models performed well in most places. But, unlike the more defensive positioning we observed during the last couple of months, more aggressive strategies seemed to have paid off in most regions during May. In addition to valuation, price momentum, growth and small-cap stocks returned to favor, while quality was not rewarded.

The StarMine Intrinsic Valuation (IV) and Relative Valuation (RV) models performed well in every region except Canada and Australia. Within Emerging Markets, exceptions were also found in Brazil and India. Other StarMine model performance varied by region. Price Momentum (Price Mo) worked well except in U.S. and Developed Europe small-caps. Similar performance was observed for the StarMine Smart Holdings model. The other two U.S.-only "Smart Money" models (Insider Filings and Short Interest) also generated negative decile spreads. The StarMine Analyst Revisions Model (ARM) sorted stocks effectively in Canada, Developed Asia ex-Japan and the overall Emerging Markets region, but not in the U.S., the U.K., Developed Europe, or Japan. StarMine Earnings Quality (EQ) was out of favor this month, showing both positive top/bottom decile spreads and I.C.s only in the overall Emerging Markets region. Demonstrating a more risk-on or speculative market, the negative decile spreads was generally due to the outperformance of the bottom decile. The StarMine MarketPsych Media Sentiment (MMS) model also struggled during the month, with negative decile spreads and/or I.C. in every major region this report tracks.

With input components showing mixed results during the month, the four-factor Val-Mo model and the Combined Alpha Model (CAM), which combines all StarMine alpha models, also showed varied results across regions, but mostly positive except in Developed Europe. Both CAM and Val-Mo demonstrated positive results in Japan, Developed Asia ex-Japan, and the overall Emerging Markets region.

United States – StarMine Models

The table below details performance of StarMine models in the United States. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		. s	tarMine A	RM		StarMine E	Q	_	StarMine IV	v		StarMine R\	,	Sta	rMine Price	Мо	St	arMine Val-	-Mo	StarMi	ne Smart H	loldings	StarN	ine Short I	nterest	StarN	line Insider	Filings	Combi	ned Alpha I	Model		MMS	
		# stocks: 2	2799		# stocks:			# stocks:			# stocks: 2	2888		# stocks: 2			# stocks: 2			# stocks: 2			# stocks: 3			# stocks:			# stocks: 28			# stocks: 256		
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Large Cap (top 500)	Equal wt Avg Return Top Decile Bottom Decile Decile Spread I.C.	2.7% 3.3% 3.0% 0.3% -0.004	22.2% 26.5% 20.6% 4.0% 0.000	1.37 1.35 1.01 0.42 0.01	2.7% 3.4% 5.8% -2.3% -0.122	22.2% 29.0% 28.4% -0.3% 0.011	1.37 1.60 1.47 0.02 0.27	2.7% 3.0% 0.1% 2.9% 0.051	22.2% 38.7% 18.1% 16.6% 0.058	1.37 1.83 0.93 1.27 1.05	2.7% 3.0% 1.9% 1.1% 0.003	22.2% 31.6% 23.5% 4.6% 0.040	1.37 1.61 1.02 0.38 0.75	2.7% 4.8% 3.3% 1.5% 0.150	22.2% 38.8% 9.0% 24.7% 0.081	1.37 2.33 0.53 1.37 1.65	2.7% 3.1% 1.3% 1.7% 0.082	22.2% 34.4% 11.0% 18.8% 0.080	1.37 2.11 0.59 1.30 1.97	2.7% 2.2% 4.1% -1.9% 0.000	22.2% 22.3% 19.5% -1.0% 0.016	1.37 1.70 0.86 0.02 0.40	2.7% 2.4% 5.8% -3.4% 0.041	22.2% 21.7% 28.0% -8.4% 0.018	1.37 1.67 1.11 -0.47 0.48	2.7% 1.8% 2.6% -0.7% -0.081	22.2% 23.0% 19.7% 2.8% -0.002	1.37 1.21 1.29 0.32 -0.08	2.7% 2.5% 3.1% -0.6% -0.006	22.2% 29.2% 19.0% 6.6% 0.043	1.37 1.71 0.87 0.66 1.28	2.7% 3.7% 3.8% -0.1% -0.037	22.2% 25.5% 20.5% 4.3% 0.007	1.37 1.35 1.41 0.46 0.25
Mid Cap (next 500)	Equal wt Avg Return Top Decile Bottom Decile Decile Spread I.C.	2.5% 4.6% 3.8% 0.8% -0.037	22.5% 10.7% 31.2% -19.4% -0.021	1.12 0.62 1.06 -1.16 -0.56	2.5% 5.1% 1.9% 3.2% -0.048	22.5% 32.5% 6.8% 22.8% 0.036	1.12 1.45 0.40 2.03 1.25	2.5% 1.9% 1.0% 0.9% 0.067	22.5% 34.7% 14.4% 16.6% 0.057	1.12 1.58 0.73 1.29 1.56	2.5% 3.4% -2.5% 5.9% 0.099	22.5% 34.3% 0.0% 31.0% 0.081	1.12 1.53 0.13 1.89 2.19	2.5% 6.1% 1.2% 4.9% 0.107	22.5% 30.4% 14.2% 9.7% 0.036	1.12 2.01 0.64 0.60 0.80	2.5% 3.5% -2.8% 6.3% 0.099	22.5% 27.9% 5.5% 17.7% 0.077	1.12 1.68 0.34 1.10 2.05	2.5% 7.9% 1.4% 6.5% 0.043	22.5% 27.3% 35.0% -11.0% 0.032	1.12 1.37 1.08 -0.48 0.95	2.5% 2.3% 0.8% 1.6% 0.086	22.5% 21.4% 21.9% -8.5% 0.045	1.12 1.51 0.74 -0.23 1.28	2.5% 3.1% 4.1% -1.0% -0.022	22.5% 31.5% 22.8% 8.2% -0.001	1.12 1.16 1.19 0.67 -0.03	2.5% 4.5% -0.4% 4.8% 0.038	22.5% 38.1% 7.0% 26.5% 0.063	1.12 1.97 0.40 1.86 2.01	2.5% 5.0% 3.1% 1.9% 0.019	22.5% 27.1% 25.4% 0.5% 0.000	1.12 1.29 1.18 0.10 0.01
Small Cap (next 2000)	Equal wt Avg Return Top Decile Bottom Decile Decile Spread I.C.	4.1% 3.7% 8.6% -4.9% -0.071	16.1% 25.4% 11.8% 9.1% 0.004	0.76 1.13 0.51 0.74 0.17	4.1% 3.2% 3.7% -0.6% -0.003	16.1% 20.0% -0.7% 16.9% 0.064	0.76 1.02 0.13 1.26 2.58	4.1% 5.4% 4.4% 1.0% -0.007	16.1% 49.4% 4.2% 42.8% 0.095	0.76 2.25 0.32 3.41 3.61	4.1% 5.5% 0.1% 5.4% 0.077	16.1% 47.7% -13.0% 57.0% 0.129	0.76 2.08 -0.22 1.93 3.20	4.1% 4.8% 7.3% -2.5% 0.008	16.1% 31.3% -0.6% 26.4% 0.055	0.76 1.85 0.12 1.36 1.84	4.1% 3.7% 6.4% -2.7% 0.053	16.1% 36.2% -12.1% 41.1% 0.131	0.76 2.08 -0.15 1.52 3.19	4.1% 4.7% 7.0% -2.3% 0.012	16.1% 26.9% -5.4% 26.3% 0.083	0.76 1.73 -0.01 1.34 2.47	4.1% 2.1% 10.3% -8.2% 0.005	16.1% 19.1% -7.4% 18.0% 0.063	0.76 1.14 -0.02 0.79 1.63	4.1% 2.1% 4.3% -2.1% -0.010	16.1% 18.1% 9.2% 8.8% 0.009	0.76 0.83 0.55 1.20 0.70	4.1% 4.5% 6.4% -1.9% 0.045	16.1% 44.1% -16.7% 57.9% 0.121	0.76 2.40 -0.29 2.06 3.11	4.1% 1.4% 3.8% -2.5% -0.039	16.1% 12.2% 15.6% -3.7% -0.001	0.76 0.64 0.73 -0.48 -0.09
Overall (top 3000)	Equal wt Avg Return Top Decile Bottom Decile Decile Spread I.C.	3.6% 4.1% 7.3% -3.2% -0.055	18.3% 24.4% 17.3% 3.3% 0.003	0.90 1.17 0.70 0.33 0.12	3.6% 3.1% 5.5% -2.3% -0.029	18.3% 25.4% 4.2% 17.1% 0.057	0.90 1.32 0.29 1.39 2.04	3.6% 4.4% 2.9% 1.6% 0.022	18.3% 45.2% 10.8% 30.6% 0.074	0.90 2.10 0.63 2.58 2.08	3.6% 5.2% 0.9% 4.3% 0.071	18.3% 43.0% -10.8% 50.3% 0.109	0.90 1.87 -0.17 1.93 2.88	3.6% 4.9% 6.6% -1.8% 0.040	18.3% 30.8% 4.8% 19.9% 0.061	0.90 2.00 0.31 1.11 1.76	3.6% 3.5% 4.4% -1.0% 0.062	18.3% 37.3% -9.5% 41.5% 0.115	0.90 2.09 -0.12 1.78 3.06	3.6% 4.1% 7.0% -2.8% 0.015	18.3% 25.1% 0.1% 18.5% 0.077	0.90 1.66 0.16 1.02 1.97	3.6% 2.2% 7.1% -4.9% 0.014	18.3% 21.2% -1.6% 13.3% 0.061	0.90 1.43 0.14 0.63 1.52	3.6% 2.9% 3.6% -0.7% -0.023	18.3% 20.6% 13.5% 7.3% -0.001	0.90 0.92 0.82 0.88 -0.06	3.6% 4.0% 5.5% -1.5% 0.038	18.3% 38.7% -8.9% 41.6% 0.103	0.90 2.18 -0.09 1.76 2.86	3.6% 2.9% 3.6% -0.6% -0.031	18.3% 17.0% 18.5% -1.6% 0.003	0.90 0.88 0.91 -0.20 0.17
Overall (top 3000)	Benchmark model Top Decile Bottom Decile Decile Spread I.C.	5.3% 3.4% 1.9% -0.026	16.4% 12.8% 1.9% -0.004	0.79 0.58 0.28 -0.28	2.6% 4.5% -1.9% -0.044	15.9% 11.6% 4.5% 0.007	0.69 0.60 0.62 0.54	5.5% 2.0% 3.5% 0.076	41.5% -6.8% 39.6% 0.119	1.80 0.00 1.45 3.24	5.5% 2.0% 3.5% 0.076	41.5% -6.8% 39.6% 0.119	1.80 0.00 1.45 3.24	2.4% 8.2% -5.8% -0.005	18.8% 10.0% 2.1% 0.035	0.85 0.44 0.20 0.84	3.1% 3.0% 0.1% 0.012	32.8% -1.0% 29.4% 0.097	1.52 0.12 1.80 3.29	3.7% 2.5% 1.2% -0.037	10.1% 10.9% -1.6% -0.002	0.59 0.57 -0.16 -0.13	1.9% 5.7% -3.8% 0.016	14.6% 9.6% -3.2% 0.047	1.00 0.44 -0.02 1.11	5.0% 3.0% 2.0% -0.011	25.7% 16.9% 7.9% 0.001	1.11 0.85 1.23 0.05	3.2% 4.3% -1.1% 0.022	36.3% 3.2% 24.3% 0.099	1.99 0.26 1.22 2.79	2.0% 6.4% -4.4% -0.052	20.6% 13.6% 4.1% 0.018	1.10 0.64 0.41 0.82
Overall (top 3000)	StarMine Value Added Top Decile Bottom Decile Decile Spread I.C.	-1.3% 3.8% -5.1% -0.029	8.0% 4.5% 1.4% 0.007		0.5% 0.9% -0.4% 0.015	9.5% -7.3% 12.6% 0.051		-1.0% 0.9% -1.9% -0.054	3.7% 17.5% -9.0% -0.045		-0.3% -1.1% 0.8% -0.005	1.6% -4.0% 10.6% -0.010		2.5% -1.6% 4.0% 0.045	12.0% -5.3% 17.9% 0.026		0.4% 1.4% -1.0% 0.050	4.5% -8.5% 12.1% 0.018		0.4% 4.5% -4.1% 0.052	15.0% -10.8% 20.1% 0.079		0.3% 1.4% -1.1% -0.002	6.6% -11.2% 16.5% 0.014		-2.0% 0.7% -2.7% -0.013	-5.1% -3.4% -0.6% -0.002		0.8% 1.2% -0.4% 0.016	2.4% -12.1% 17.3% 0.004		0.9% -2.8% 3.8% 0.021	-3.5% 4.8% -5.8% -0.015	

Canada – StarMine Models

The table below details performance of StarMine models in Canada. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		S	tarMine AF	RM		starMine E	Q		StarMine I	v		StarMine R	v	Sta	rMine Pric	еМо	Sta	rMine Val-	-Мо	StarMir	ne Smart H	loldings	Comb	ined Alpha	Model		MMS	
		# stocks: 4	146		# stocks: 4	66		# stocks: 2	87		# stocks: 4	77		# stocks: 4	169		# stocks: 4	68		# stocks: 4	79		# stocks: 4	160		# stocks: 2	77	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe																		
Large Cap (top 250)	Equal wt Avg Return	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26	1.3%	13.8%	1.26
	Top Decile	3.4%	11.3%	1.10	2.3%	41.2%	2.43	-1.5%	42.0%	2.53	-1.8%	18.6%	1.28	4.4%	21.1%	2.00	3.8%	13.5%	1.14	4.8%	23.1%	1.95	4.1%	19.6%	1.51	-1.9%	9.0%	0.63
	Bottom Decile	-1.2%	9.7%	0.62	1.4%	14.2%	0.88	-1.1%	2.4%	0.25	-1.7%	2.2%	0.21	-1.5%	9.9%	0.58	-0.8%	2.4%	0.22	-1.3%	4.1%	0.30	1.2%	9.6%	0.53	4.2%	23.8%	1.73
	Decile Spread	4.5%	-0.4%	0.03	0.9%	22.4%	1.50	-0.4%	37.7%	2.37	-0.1%	12.7%	0.66	5.9%	6.8%	0.45	4.5%	6.9%	0.42	6.1%	14.1%	0.74	2.9%	4.8%	0.33	-6.1%	-12.9%	-0.83
	I.C.	0.115	-0.063	-1.53	-0.071	0.028	0.89	0.017	0.083	2.07	0.084	0.046	1.28	0.140	0.063	1.34	0.148	0.035	0.72	0.109	0.019	0.41	0.082	0.008	0.16	0.053	-0.009	-0.30
Small Cap (next 250)	Equal wt Avg Return	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72	1.9%	8.4%	0.72
	Top Decile	4.6%	15.4%	1.06	0.5%	7.9%	0.66	-0.1%	16.3%	1.12	1.0%	9.1%	0.79	2.7%	28.2%	1.78	-0.1%	24.9%	2.12	-1.0%	20.5%	1.42	1.2%	26.5%	1.70	-3.0%	33.4%	1.58
	Bottom Decile	1.6%	1.1%	0.15	10.7%	-7.5%	-0.25	2.5%	38.4%	1.61	3.8%	-11.4%	-0.63	1.1%	20.1%	1.09	3.2%	-1.8%	-0.11	4.3%	-2.6%	-0.10	6.5%	3.7%	0.32	9.0%	-0.4%	0.13
	Decile Spread	3.0%	12.7%	0.86	-10.3%	12.4%	0.68	-2.6%	-21.2%	-0.66	-2.7%	20.7%	1.39	1.6%	3.7%	0.28	-3.4%	26.0%	1.81	-5.3%	21.9%	1.34	-5.3%	19.9%	1.06	-12.0%	23.5%	0.77
	I.C.	0.052	0.015	0.76	-0.049	0.094	3.63	0.035	0.018	0.62	-0.096	0.086	3.46	0.067	0.085	2.00	-0.076	0.106	3.79	0.001	0.091	3.61	-0.052	0.109	3.37	-0.086	0.064	1.51
Overall (top 500)	Equal wt Avg Return	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00	1.6%	11.3%	1.00
	Top Decile	3.9%	12.7%	1.23	1.3%	21.1%	1.58	-0.6%	25.9%	1.73	-1.2%	14.5%	1.21	3.5%	25.1%	2.03	1.5%	18.3%	1.72	3.5%	24.7%	2.43	1.5%	21.7%	1.72	-2.9%	14.9%	0.99
	Bottom Decile	-0.1%	4.8%	0.40	6.9%	-2.0%	-0.04	0.3%	5.8%	0.53	4.2%	-2.2%	-0.09	0.0%	11.6%	0.69	3.5%	-0.8%	0.00	2.7%	2.4%	0.23	5.0%	5.2%	0.40	5.2%	13.0%	0.85
	Decile Spread	4.0%	6.4%	0.64	-5.7%	21.2%	1.28	-0.9%	18.8%	1.67	-5.4%	15.4%	1.04	3.6%	9.0%	0.55	-2.0%	17.6%	1.16	0.9%	19.7%	1.29	-3.5%	13.4%	0.80	-8.1%	-0.3%	0.08
	I.C.	0.085	-0.024	-0.91	-0.056	0.068	2.74	-0.014	0.060	1.98	-0.026	0.072	2.97	0.103	0.079	1.82	0.019	0.077	2.40	0.051	0.068	2.37	0.010	0.067	1.69	0.005	0.018	0.64
Overall (top 500)	Benchmark model																											
	Top Decile	4.6%	3.3%	0.37	-0.9%	19.5%	1.09	-0.7%	25.5%	1.64	-0.7%	25.5%	1.64	2.5%	25.8%	1.80	2.9%	18.0%	1.69	3.0%	14.8%	1.43	3.1%	12.0%	1.24	-1.2%	14.6%	1.23
	Bottom Decile	-0.3%	21.6%	1.19	0.6%	10.6%	1.02	1.1%	1.0%	0.14	1.1%	1.0%	0.14	6.3%	21.0%	1.11	0.5%	11.6%	0.86	6.2%	11.3%	0.93	-0.1%	1.4%	0.17	-1.0%	-1.9%	-0.07
	Decile Spread	4.9%	-17.1%	-1.23	-1.5%	8.5%	0.75	-1.8%	22.3%	1.37	-1.8%	22.3%	1.37	-3.7%	1.3%	0.17	2.4%	4.9%	0.56	-3.1%	2.2%	0.26	3.2%	9.0%	0.88	-0.3%	15.8%	1.38
	I.C.	0.152	-0.012	-0.52	-0.053	0.002	0.13	-0.026	0.080	2.63	-0.026	0.080	2.63	-0.062	0.017	0.57	0.052	0.033	1.29	-0.013	-0.005	-0.34	0.008	0.021	0.84	-0.029	0.046	1.96
Overall (top 500)	StarMine Value Added																											
	Top Decile	-0.7%	9.5%		2.1%	1.6%		0.2%	0.5%		-0.5%	-11.0%		1.0%	-0.8%		-1.4%	0.3%		0.5%	9.9%		-1.6%	9.7%		-1.7%	0.3%	
	Bottom Decile	0.2%	-16.8%		6.3%	-12.5%		-0.8%	4.7%		3.1%	-3.2%		-6.3%	-9.3%		3.0%	-12.4%		-3.5%	-8.9%		5.1%	3.8%		6.2%	14.9%	
	Decile Spread	-0.9%	23.5%		-4.2%	12.7%		1.0%	-3.4%		-3.6%	-6.9%		7.3%	7.7%		-4.4%	12.7%		4.0%	17.5%		-6.7%	4.4%		-7.9%	-16.1%	
	I.C.	-0.067	-0.012		-0.003	0.066		0.012	-0.021		0.000	-0.009		0.165	0.063		-0.033	0.045		0.064	0.074		0.002	0.046		0.034	-0.027	

Developed Europe — StarMine Models

The table below details performance of StarMine models in Developed Europe. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		. 8	StarMine Al	RM		StarMine E	Q		StarMine I	,		StarMine R	v	Sta	arMine Price	еМο	Sta	arMine Val-	-Мо	StarMin	ne Smart H	loldings	Comb	ined Alpha	Model		MMS	
		# stocks:	1713		# stocks: 1	812		# stocks: "	1544		# stocks:	1846		# stocks:	1878		# stocks: 1	1825		# stocks: 1	880		# stocks:	1819		# stocks: 1	407	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Large Cap (top 600)	Equal wt Avg Return	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65	4.6%	18.8%	1.65
	Top Decile	1.7%	11.4%	1.05	3.6%	22.5%	2.13	5.9%	40.3%	2.60	5.1%	47.2%	3.55	4.6%	37.0%	3.51	5.1%	36.4%	3.02	3.4%	17.7%	1.91	4.9%	27.1%	2.56	4.6%	24.4%	2.10
	Bottom Decile	3.6%	15.2%	1.03	5.0%	17.3%	1.20	1.0%	8.8%	0.64	1.3%	5.1%	0.38	2.3%	9.3%	0.69	1.5%	4.8%	0.35	3.8%	14.7%	1.06	2.5%	6.8%	0.51	8.9%	22.8%	1.58
	Decile Spread	-2.0%	-4.3%	-0.41	-1.4%	3.5%	0.48	4.9%	28.2%	2.28	3.9%	38.4%	3.11	2.2%	23.9%	1.83	3.6%	27.7%	1.84	-0.3%	1.6%	0.23	2.4%	17.6%	1.57	-4.2%	0.6%	0.11
	I.C.	0.051	0.021	0.67	-0.066	-0.011	-0.49	0.163	0.118	3.04	0.148	0.104	2.42	0.147	0.066	1.92	0.169	0.103	2.35	-0.009	0.025	0.96	0.098	0.078	2.17	0.019	0.014	0.83
Mid Cap (next 600)	Equal wt Avg Return	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21	6.7%	17.0%	1.21
	Top Decile	5.0%	18.5%	1.38	5.5%	17.3%	1.41	4.1%	38.6%	3.23	5.1%	33.7%	3.33	4.9%	22.0%	2.43	3.6%	28.1%	3.83	5.0%	16.3%	2.06	4.6%	27.6%	3.76	6.0%	22.5%	1.21
	Bottom Decile	8.2%	9.2%	0.61	6.2%	1.5%	0.17	7.2%	7.7%	0.43	6.2%	-1.7%	0.03	7.6%	9.1%	0.56	7.0%	0.0%	0.11	6.9%	9.1%	0.56	7.2%	-2.7%	-0.04	8.2%	20.9%	1.40
	Decile Spread	-3.2%	7.5%	0.76	-0.8%	14.2%	1.52	-3.1%	23.9%	1.26	-1.1%	31.4%	1.64	-2.7%	9.0%	0.61	-3.4%	23.5%	1.26	-1.8%	4.2%	0.39	-2.7%	27.4%	1.67	-2.2%	1.4%	0.19
	I.C.	-0.049	0.023	0.72	-0.011	0.018	0.69	-0.025	0.094	2.89	0.002	0.080	2.28	-0.076	0.043	1.22	-0.053	0.082	1.89	-0.037	0.030	1.05	-0.037	0.062	1.46	-0.038	0.006	0.51
Small Cap (next 800)	Equal wt Avg Return	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89	6.8%	11.5%	0.89
	Top Decile	5.8%	22.5%	1.88	7.2%	20.2%	1.57	5.6%	22.8%	2.42	5.6%	25.6%	2.43	3.6%	26.7%	3.43	3.9%	26.9%	3.13	4.2%	21.9%	2.31	4.7%	27.3%	2.93	6.1%	12.8%	0.99
	Bottom Decile	9.7%	2.2%	0.21	7.9%	-1.4%	0.01	6.9%	8.8%	0.67	8.5%	-6.2%	-0.27	7.3%	1.1%	0.15	7.9%	-4.4%	-0.15	9.3%	1.8%	0.19	6.6%	-4.7%	-0.17	6.6%	10.5%	0.71
	Decile Spread	-3.9%	17.5%	1.44	-0.7%	20.2%	1.82	-1.2%	11.6%	1.04	-2.9%	31.5%	2.55	-3.8%	23.1%	1.74	-4.0%	29.5%	1.87	-5.1%	17.4%	1.29	-1.9%	30.6%	2.11	-0.5%	1.4%	0.26
	I.C.	-0.017	0.031	1.09	-0.017	0.053	3.39	-0.013	0.048	2.23	-0.008	0.076	4.19	-0.078	0.051	1.61	-0.032	0.090	3.07	-0.039	0.062	2.44	-0.029	0.087	2.94	0.022	0.030	1.84
Overall (top 2000)	Equal wt Avg Return	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24	6.0%	15.6%	1.24
	Top Decile	4.5%	16.7%	1.43	5.4%	20.7%	1.81	5.9%	34.6%	3.19	5.5%	34.8%	3.31	4.2%	26.9%	3.18	4.3%	31.1%	3.49	4.2%	19.1%	2.25	4.4%	28.2%	3.39	4.1%	18.4%	1.52
	Bottom Decile	7.6%	7.1%	0.49	7.0%	3.5%	0.30	4.2%	7.8%	0.56	5.6%	-1.2%	0.01	6.4%	9.1%	0.65	5.3%	0.3%	0.11	6.6%	6.4%	0.47	5.5%	-2.1%	-0.03	7.8%	17.0%	1.19
	Decile Spread	-3.0%	7.6%	0.78	-1.6%	15.4%	1.77	1.8%	23.5%	2.06	-0.1%	34.2%	2.68	-2.2%	14.7%	1.28	-1.0%	27.8%	1.87	-2.4%	10.4%	1.02	-1.2%	28.2%	2.09	-3.7%	0.7%	0.15
	I.C.	-0.013	0.026	0.87	-0.029	0.026	1.36	0.042	0.081	2.97	0.041	0.085	3.00	-0.020	0.057	1.86	0.017	0.092	2.64	-0.037	0.047	1.76	-0.001	0.078	2.32	-0.002	0.018	1.38
Overall (top 2000)	Benchmark model																											
	Top Decile	6.8%	19.0%	1.43	5.8%	16.2%	1.33	7.6%	30.5%	2.46	7.6%	30.5%	2.46	5.4%	23.4%	2.27	7.1%	33.4%	2.81	4.7%	13.3%	1.08	6.4%	33.1%	3.21	5.4%	18.6%	1.51
	Bottom Decile	7.7%	10.2%	0.69	6.1%	5.9%	0.46	5.8%	-2.1%	-0.03	5.8%	-2.1%	-0.03	11.0%	11.4%	0.64	5.8%	5.0%	0.36	4.7%	15.0%	1.65	5.7%	1.2%	0.16	7.5%	20.0%	1.34
	Decile Spread	-0.9%	7.4%	1.15	-0.3%	9.3%	2.20	1.8%	31.4%	2.79	1.8%	31.4%	2.79	-5.6%	8.0%	0.60	1.3%	25.1%	2.05	0.0%	-1.3%	-0.18	0.7%	28.9%	2.07	-2.1%	-1.6%	-0.33
	I.C.	0.004	0.013	0.81	-0.009	0.028	1.81	0.045	0.086	3.30	0.045	0.086	3.30	-0.033	0.044	1.32	0.027	0.083	2.83	0.020	-0.002	-0.15	0.028	0.080	2.58	-0.008	0.005	0.36
Overall (top 2000)	StarMine Value Added																											
	Top Decile	-2.2%	-2.3%		-0.4%	4.5%		-1.7%	4.1%		-2.1%	4.3%		-1.2%	3.5%		-2.8%	-2.4%		-0.5%	5.8%		-2.0%	-4.9%		-1.3%	-0.2%	
	Bottom Decile	-0.1%	-3.1%		0.9%	-2.4%		-1.6%	9.8%		-0.2%	0.9%		-4.6%	-2.3%		-0.6%	-4.7%		1.8%	-8.6%		-0.1%	-3.2%		0.3%	-3.0%	
	Decile Spread	-2.1%	0.2%		-1.2%	6.1%		0.0%	-7.9%		-1.9%	2.9%		3.4%	6.7%		-2.2%	2.7%		-2.3%	11.7%		-1.9%	-0.7%		-1.6%	2.3%	
	I.C.	-0.017	0.012		-0.020	-0.002		-0.004	-0.005		-0.005	-0.001		0.014	0.013		-0.010	0.009		-0.057	0.049		-0.029	-0.001		0.006	0.013	

United Kingdom – StarMine Models

The table below details performance of StarMine models in the United Kingdom. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		. 8	StarMine AF	M		tarMine E	Q		StarMine IV	v		StarMine R	V	Sta	rMine Pric	еМо	Sta	arMine Val-	Мо	StarMir	ne Smart F	loldings	Comb	ined Alpha	a Model		MMS	
		# stocks: 4	475		# stocks: 4	68		# stocks: 3	196		# stocks: 4	181		# stocks: 5	546		# stocks: 4	180		# stocks: 5	01		# stocks: 4	178		# stocks: 4	25	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Large Cap (top 350)	Equal wt Avg Return	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15	7.2%	17.0%	1.15
	Top Decile	2.5%	13.8%	0.90	6.8%	25.8%	1.91	1.1%	28.6%	1.72	3.7%	24.9%	1.62	2.1%	25.2%	2.79	2.5%	19.8%	1.70	4.0%	14.4%	1.39	3.4%	21.2%	3.12	2.6%	20.5%	1.13
	Bottom Decile	6.9%	14.0%	0.92	6.5%	-1.0%	0.09	1.1%	17.2%	0.72	4.3%	1.5%	0.18	16.1%	28.7%	1.23	3.7%	2.7%	0.24	7.4%	30.4%	1.23	6.1%	3.4%	0.28	4.1%	16.4%	1.20
	Decile Spread	-4.4%	-0.8%	-0.01	0.3%	22.3%	1.22	0.0%	5.7%	0.39	-0.5%	20.9%	1.25	-14.0%	-6.6%	-0.26	-1.3%	15.0%	1.31	-3.4%	-15.9%	-0.90	-2.6%	14.8%	1.12	-1.5%	2.9%	0.26
	I.C.	-0.030	0.003	0.12	0.027	0.050	1.38	0.076	0.071	2.13	0.087	0.075	2.15	-0.088	0.065	2.09	0.037	0.075	2.31	-0.101	0.024	0.73	-0.013	0.076	2.01	0.037	0.027	1.26
Small Cap (next 250)	Equal wt Avg Return	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23	6.6%	16.8%	1.23
	Top Decile	4.8%	32.4%	2.35	5.3%	37.7%	2.61	5.0%	23.9%	2.41	4.3%	15.3%	1.16	3.5%	36.3%	3.21	3.9%	36.3%	3.59	2.8%	28.1%	2.04	4.3%	44.2%	3.19	5.4%	33.7%	2.00
	Bottom Decile	11.3%	-6.0%	-0.20	11.6%	13.5%	0.64	4.3%	-4.0%	-0.24	7.5%	4.6%	0.32	7.4%	13.0%	0.86	13.4%	3.9%	0.28	10.3%	12.3%	0.72	14.3%	7.7%	0.40	5.4%	23.1%	1.43
	Decile Spread	-6.5%	37.1%	2.10	-6.2%	17.3%	1.00	0.7%	27.9%	3.10	-3.2%	7.5%	0.52	-3.8%	19.4%	1.91	-9.5%	25.1%	1.21	-7.5%	12.0%	0.87	-10.0%	24.7%	0.98	0.1%	7.5%	0.54
	I.C.	-0.114	0.063	1.67	-0.155	0.077	2.44	0.008	0.019	1.18	-0.036	0.027	1.34	-0.173	0.041	1.27	-0.109	0.076	2.03	-0.153	0.054	1.72	-0.223	0.081	1.75	0.043	0.068	2.18
Overall (top 600)	Equal wt Avg Return	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22	7.0%	17.0%	1.22
	Top Decile	4.0%	22.2%	1.46	6.1%	32.4%	2.50	4.1%	29.0%	1.90	4.5%	21.3%	1.65	2.3%	29.0%	3.24	2.7%	23.2%	2.32	3.4%	21.0%	1.86	3.2%	29.7%	3.34	3.5%	21.2%	1.52
	Bottom Decile	9.0%	-0.2%	0.08	7.8%	4.2%	0.29	1.7%	12.9%	0.67	5.2%	2.9%	0.26	12.4%	10.8%	0.66	7.5%	3.4%	0.27	9.6%	23.3%	1.17	9.2%	8.9%	0.52	5.1%	18.8%	1.45
	Decile Spread	-5.0%	20.8%	1.51	-1.7%	23.1%	1.35	2.5%	11.7%	0.82	-0.7%	16.9%	1.78	-10.1%	14.0%	1.01	-4.8%	16.5%	1.22	-6.2%	-4.1%	-0.25	-6.0%	15.6%	0.99	-1.6%	1.9%	0.29
	I.C.	-0.068	0.029	0.97	-0.046	0.061	1.99	0.038	0.049	2.11	0.034	0.051	2.65	-0.110	0.056	1.90	-0.022	0.075	2.51	-0.106	0.038	1.29	-0.094	0.079	2.01	0.036	0.041	2.44
Overall (all Cap)	Benchmark model																											
	Top Decile	5.8%	16.4%	1.29	6.3%	17.8%	1.28	6.6%	20.3%	1.26	6.6%	20.3%	1.26	3.4%	23.6%	2.22	7.2%	25.0%	1.57	3.0%	8.9%	0.74	6.0%	25.7%	1.92	6.8%	17.3%	1.29
	Bottom Decile	8.3%	12.3%	0.75	6.7%	3.7%	0.32	4.4%	-2.9%	-0.09	4.4%	-2.9%	-0.09	16.6%	14.8%	0.73	5.1%	9.7%	0.62	4.9%	16.6%	1.38	4.7%	6.3%	0.38	6.1%	18.2%	1.32
	Decile Spread	-2.5%	2.5%	0.34	-0.4%	13.2%	1.80	2.2%	23.2%	2.54	2.2%	23.2%	2.54	-13.1%	3.8%	0.30	2.1%	13.1%	1.21	-1.9%	-6.9%	-0.80	1.3%	15.3%	1.07	0.7%	-1.0%	-0.14
	I.C.	-0.005	0.016	0.99	0.004	0.020	1.28	0.043	0.055	2.64	0.043	0.055	2.64	-0.137	0.032	0.94	0.029	0.062	3.01	-0.028	0.003	0.19	-0.011	0.069	2.92	-0.012	0.009	0.47
Overall (all Cap)	StarMine Value Added																											
	Top Decile	-1.8%	5.8%		-0.2%	14.6%		-2.5%	8.7%		-2.1%	0.9%		-1.1%	5.5%		-4.5%	-1.8%		0.4%	12.1%		-2.8%	4.0%		-3.3%	3.9%	
	Bottom Decile	0.7%	-12.5%		1.1%	0.5%		-2.8%	15.9%		0.8%	5.8%		-4.2%	-4.0%		2.4%	-6.3%		4.7%	6.7%		4.5%	2.6%		-1.0%	0.6%	
	Decile Spread	-2.5%	18.2%		-1.3%	9.8%		0.3%	-11.5%		-2.9%	-6.3%		3.1%	10.2%		-6.9%	3.5%		-4.3%	2.8%		-7.3%	0.2%		-2.3%	2.9%	
	I.C.	-0.062	0.013		-0.050	0.041		-0.005	-0.006		-0.009	-0.003		0.027	0.023		-0.051	0.013		-0.078	0.034		-0.084	0.009		0.048	0.032	

Developed Asia Ex-Japan — StarMine Models

The table below details performance of StarMine models in Developed Asia ex-Japan. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

			StarMine Al	RM		StarMine E	Q		StarMine I	V		StarMine R	v		arMine Price			arMine Val-	-Мо		ne Smart F	loldings		ined Alpha	Model	I	MMS	
		# stocks: May-24	788 T12M	Sharpe	# stocks: 9 May-24	164 T12M	Sharpe	# stocks: (May-24	591 T12M	Sharpe	# stocks: ! May-24	967 T12M	Sharpe	# stocks: 9 May-24	919 T12M	Sharpe	# stocks: 9 May-24	712M	Sharpe	# stocks: 9 May-24	711 T12M	Sharpe	# stocks: 9 May-24		Sharpe	# stocks: May-24	758 T12M	Sharpe
Australia (top 200)	Equal wt Avg Return	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13	1.9%	15.6%	1.13
	Top Decile	1.1%	44.4%	2.16	2.1%	20.4%	1.50	5.0%	23.9%	2.10	1.9%	28.9%	2.16	5.6%	14.0%	1.11	2.0%	18.0%	1.96	4.3%	24.1%	2.23	3.1%	22.9%	2.02	0.5%	20.1%	1.15
	Bottom Decile	1.4%	9.1%	0.68	1.8%	5.1%	0.42	4.6%	25.7%	1.41	5.3%	19.8%	1.23	-2.0%	-2.1%	-0.05	2.1%	13.2%	0.79	-0.1%	11.9%	0.82	0.7%	2.1%	0.21	-1.5%	18.3%	0.80
	Decile Spread	-0.3%	30.9%	1.44	0.3%	14.0%	1.74	0.4%	-3.4%	-0.17	-3.3%	5.9%	0.44	7.6%	14.9%	1.12	-0.1%	1.7%	0.19	4.4%	9.8%	1.03	2.4%	18.8%	1.56	2.0%	-2.3%	0.01
	I.C.	0.083	-0.001	-0.02	0.008	0.026	1.07	-0.104	0.037	0.80	-0.112	0.026	0.57	0.183	0.037	1.08	0.029	0.038	1.09	0.169	0.030	1.17	0.101	0.028	1.01	0.125	0.049	1.99
Hong Kong (top 500)	Equal wt Avg Return	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32	3.9%	-8.1%	-0.32
	Top Decile	5.3%	2.0%	0.20	3.7%	4.7%	0.34	4.8%	1.8%	0.19	6.2%	17.2%	1.03	1.1%	12.0%	0.80	4.0%	23.7%	1.90	4.8%	18.2%	1.19	6.0%	34.2%	2.65	4.0%	2.1%	0.21
	Bottom Decile	2.4%	-21.3%	-0.92	8.3%	-27.0%	-1.09	3.4%	-20.2%	-0.99	4.3%	-34.1%	-1.34	1.5%	-16.2%	-0.66	-1.2%	-36.1%	-1.90	2.9%	-28.0%	-1.45	1.4%	-32.4%	-1.63	8.3%	-10.5%	-0.39
	Decile Spread	2.9%	28.2%	3.15	-4.7%	39.1%	2.87	1.4%	26.0%	2.23	1.9%	68.3%	3.54	-0.4%	29.5%	1.62	5.2%	83.3%	3.68	1.9%	59.5%	5.11	4.6%	88.8%	4.28	-4.3%	12.9%	1.30
	I.C.	0.007	0.039	2.66	0.008	0.081	5.47	0.187	0.062	2.49	0.209	0.117	3.93	0.059	0.072	2.10	0.202	0.132	4.09	0.058	0.106	4.38	0.123	0.129	4.13	-0.044	0.047	2.75
Singapore (top 200)	Equal wt Avg Return	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17	1.2%	1.3%	0.17
	Top Decile	4.8%	19.1%	1.75	3.1%	18.7%	2.29	7.8%	8.0%	0.77	3.8%	9.4%	0.66	5.0%	4.5%	0.47	5.4%	12.5%	1.27	3.1%	5.6%	0.66	6.8%	15.4%	1.40	-1.0%	9.7%	1.35
	Bottom Decile	0.6%	-18.4%	-1.52	1.6%	-8.0%	-0.85	0.5%	-5.7%	-0.54	-1.1%	-19.2%	-2.11	1.5%	-3.5%	-0.10	3.9%	-21.3%	-1.77	-1.8%	-17.5%	-2.24	1.5%	-16.2%	-1.38	6.8%	-11.3%	-0.62
	Decile Spread	4.2%	44.3%	5.18	1.6%	28.3%	3.82	7.4%	13.8%	1.20	5.0%	34.3%	2.22	3.5%	5.6%	0.42	1.5%	40.6%	3.23	4.9%	27.0%	2.56	5.2%	36.1%	3.06	-7.8%	20.6%	1.32
	I.C.	0.028	0.067	2.08	-0.028	0.067	4.46	0.248	0.068	1.19	0.155	0.113	3.74	0.083	0.069	1.84	0.123	0.108	2.69	0.123	0.103	4.23	0.108	0.116	2.65	0.217	0.103	2.76
Overall (top 1000)	Equal wt Avg Return	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21	2.7%	1.9%	0.21
	Top Decile	4.1%	18.6%	1.57	4.2%	16.6%	1.21	5.5%	2.0%	0.21	6.8%	14.9%	0.97	4.1%	15.7%	1.52	4.8%	22.7%	2.17	3.5%	16.2%	1.54	4.8%	23.9%	2.63	2.8%	16.1%	1.07
	Bottom Decile	3.5%	-13.5%	-0.63	5.8%	-13.8%	-0.69	3.0%	3.2%	0.30	4.3%	-15.0%	-0.64	1.2%	-11.0%	-0.59	1.5%	-23.1%	-1.21	2.9%	-24.0%	-1.36	1.0%	-24.9%	-1.33	4.7%	-0.2%	0.08
	Decile Spread	0.5%	33.8%	2.37	-1.6%	33.1%	3.32	2.5%	-1.7%	-0.08	2.5%	32.6%	3.14	3.0%	27.0%	1.72	3.2%	54.1%	3.16	0.5%	48.6%	3.57	3.8%	58.7%	3.18	-1.9%	15.1%	1.31
	I.C.	0.022	0.045	1.78	0.009	0.058	6.24	0.170	0.015	0.32	0.139	0.068	4.17	0.088	0.086	2.04	0.157	0.092	4.81	0.057	0.081	3.05	0.122	0.095	3.94	0.013	0.047	3.20
Overall (top 1000)	Benchmark model Top Decile Bottom Decile Decile Spread I.C.	5.2% 3.5% 1.7% 0.025	18.5% 0.3% 16.1% 0.031	1.52 0.11 1.49 1.78	3.7% 3.6% 0.1% 0.002	-1.8% -6.0% 4.5% 0.004	-0.04 -0.39 0.66 0.29	6.4% 2.7% 3.7% 0.166	3.6% -11.8% 16.0% 0.053	0.28 -0.42 2.00 1.68	6.4% 2.7% 3.7% 0.166	3.6% -11.8% 16.0% 0.053	0.28 -0.42 2.00 1.68	6.0% 3.3% 2.7% 0.049	18.6% -21.0% 41.9% 0.073	1.32 -0.69 1.91 1.48	7.7% 3.7% 4.0% 0.159	19.3% -5.4% 25.4% 0.052	1.21 -0.24 3.21 1.93	2.2% 3.4% -1.2% -0.034	-12.9% -3.1% -10.5% 0.006	-0.74 -0.18 -0.73 0.22	6.6% 1.2% 5.4% 0.142	22.1% -15.5% 40.3% 0.076	1.69 -0.71 2.41 3.54	1.9% 5.7% -3.9% -0.022	3.3% -18.2% 24.6% 0.035	0.29 -0.99 2.44 2.04
Overall (top 1000)	StarMine Value Added Top Decile Bottom Decile Decile Spread I.C.	-1.1% 0.0% -1.2% -0.002	0.1% -13.8% 17.8% 0.014		0.5% 2.2% -1.7% 0.008	18.4% -7.7% 28.5% 0.054		-0.8% 0.4% -1.2% 0.004	-1.6% 15.0% -17.7% -0.038		0.5% 1.7% -1.2% -0.027	11.3% -3.2% 16.6% 0.014		-1.9% -2.2% 0.3% 0.040	-2.9% 10.1% -14.9% 0.013		-2.9% -2.2% -0.8% -0.002	3.4% -17.7% 28.8% 0.041		1.2% -0.4% 1.7% 0.090	29.1% -20.9% 59.1% 0.075		-1.8% -0.2% -1.6% -0.020	1.8% -9.4% 18.4% 0.020		1.0% -1.0% 1.9% 0.035	12.8% 18.0% -9.5% 0.013	

Japan – StarMine Models

The table below details performance of StarMine models in Japan. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		s	tarMine AF	RM		tarMine E	Q		StarMine I	v		StarMine R	v	Sta	rMine Price	еМо	Sta	arMine Val-	-Mo	StarMin	ne Smart F	loldings	Comb	ined Alpha	Model		MMS	
		# stocks: 8	366		# stocks: 9	88		# stocks: 8	887		# stocks:	988		# stocks: 9	983		# stocks: 9	984		# stocks: 9	189		# stocks:	983		# stocks:	327	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Large Cap (top 500)	Equal wt Avg Return	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83	1.1%	25.4%	2.83
	Top Decile	0.9%	26.8%	2.09	1.5%	12.3%	1.25	3.3%	52.1%	3.14	1.7%	49.5%	3.16	5.8%	54.5%	3.88	6.0%	64.5%	4.03	4.1%	35.1%	2.60	3.5%	57.6%	3.26	3.1%	20.7%	1.81
	Bottom Decile	2.5%	19.2%	2.13	2.8%	28.9%	2.90	0.6%	-1.8%	-0.07	0.8%	-4.3%	-0.19	-1.1%	0.0%	0.04	-0.4%	-1.0%	-0.05	1.7%	24.9%	3.72	0.6%	19.4%	1.46	-0.3%	27.6%	3.31
	Decile Spread	-1.6%	6.5%	0.82	-1.3%	-13.3%	-1.74	2.6%	52.3%	2.41	0.9%	53.2%	2.67	6.9%	53.6%	3.35	6.4%	64.6%	3.32	2.5%	8.6%	1.13	2.9%	31.0%	1.71	3.4%	-5.4%	-0.78
	I.C.	0.057	0.018	0.73	-0.039	-0.067	-2.97	0.143	0.201	3.16	0.083	0.195	3.19	0.206	0.128	3.23	0.181	0.196	3.21	0.055	0.022	1.13	0.129	0.166	3.10	0.018	-0.014	-0.75
Small Cap (next 500)	Equal wt Avg Return	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51	0.3%	23.7%	2.51
	Top Decile	-0.3%	26.3%	1.78	2.5%	16.6%	1.29	4.1%	55.4%	4.31	1.3%	43.1%	3.44	3.9%	46.8%	3.30	5.4%	57.6%	4.09	-2.3%	13.4%	1.52	3.0%	44.8%	4.03	2.3%	36.8%	3.83
	Bottom Decile	0.1%	30.8%	2.79	0.3%	21.8%	3.13	-0.1%	-0.9%	0.04	-3.5%	-4.0%	-0.10	-2.3%	6.1%	0.68	-3.4%	-0.8%	0.00	0.2%	22.8%	2.41	-1.9%	4.1%	0.39	4.0%	35.1%	4.99
	Decile Spread	-0.4%	-3.6%	-0.30	2.2%	-4.2%	-0.45	4.2%	53.0%	2.55	4.8%	43.9%	1.98	6.2%	37.8%	2.44	8.7%	56.7%	3.00	-2.5%	-8.1%	-1.06	4.9%	37.8%	2.75	-1.7%	1.2%	0.20
	I.C.	0.036	0.003	0.14	-0.016	-0.044	-1.96	0.100	0.160	3.69	0.119	0.158	4.23	0.145	0.100	2.84	0.148	0.147	3.55	-0.039	0.001	0.03	0.126	0.115	3.25	-0.057	0.012	0.81
Overall (top 1000)	Equal wt Avg Return	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76	0.8%	24.7%	2.76
	Top Decile	0.6%	27.1%	2.05	2.0%	12.6%	1.20	3.3%	54.1%	4.50	1.5%	46.8%	3.70	4.9%	52.0%	3.83	5.8%	55.2%	3.88	1.7%	24.0%	2.24	3.3%	48.6%	3.64	1.9%	23.1%	2.15
	Bottom Decile	1.0%	22.3%	2.63	1.6%	25.2%	3.25	0.3%	-2.7%	-0.13	-2.0%	-5.9%	-0.24	-1.5%	3.3%	0.41	-1.9%	-1.6%	-0.09	0.2%	25.1%	2.92	-0.4%	12.1%	1.09	0.1%	27.7%	3.82
	Decile Spread	-0.5%	4.0%	0.52	0.4%	-10.1%	-1.51	2.9%	55.9%	3.16	3.5%	51.9%	2.59	6.4%	46.3%	2.98	7.7%	56.0%	3.09	1.4%	-0.8%	-0.14	3.7%	31.9%	2.34	1.8%	-3.5%	-0.63
	I.C.	0.049	0.014	0.63	-0.029	-0.055	-2.64	0.116	0.178	3.52	0.104	0.178	3.71	0.173	0.114	3.07	0.162	0.171	3.41	0.007	0.012	0.67	0.122	0.141	3.29	-0.002	-0.008	-0.45
Overall (top 1000)	Benchmark model																											
	Top Decile	2.0%	24.5%	2.30	2.0%	30.6%	3.37	0.2%	49.4%	3.35	0.2%	49.4%	3.35	4.9%	40.5%	2.35	2.2%	53.4%	4.27	-0.4%	15.5%	1.76	2.7%	44.6%	3.17	0.9%	23.0%	2.45
	Bottom Decile	0.8%	21.9%	2.50	-2.2%	14.9%	1.23	-0.1%	-0.9%	0.00	-0.1%	-0.9%	0.00	-1.3%	6.3%	0.75	-2.3%	-0.3%	0.04	1.2%	32.1%	3.56	-2.5%	-1.2%	-0.07	0.4%	19.3%	2.78
	Decile Spread	1.1%	2.2%	0.64	4.2%	12.9%	1.31	0.3%	48.9%	2.80	0.3%	48.9%	2.80	6.2%	32.0%	2.07	4.4%	52.1%	3.34	-1.7%	-12.9%	-2.85	5.2%	45.5%	3.16	0.5%	3.2%	0.68
	I.C.	0.000	0.003	0.24	0.118	0.019	0.71	0.120	0.180	3.77	0.120	0.180	3.77	0.193	0.080	2.12	0.149	0.157	3.45	0.013	-0.038	-2.25	0.182	0.151	3.31	0.031	-0.003	-0.37
Overall (top 1000)	StarMine Value Added																											
	Top Decile	-1.4%	2.6%		-0.1%	-18.0%		3.1%	4.8%		1.3%	-2.6%		0.0%	11.5%		3.6%	1.8%		2.1%	8.5%		0.6%	4.0%		1.0%	0.1%	
	Bottom Decile	0.2%	0.4%		3.8%	10.3%		0.4%	-1.8%		-1.9%	-5.0%		-0.2%	-3.0%		0.4%	-1.3%		-1.0%	-7.0%		2.1%	13.2%		-0.3%	8.4%	
	Decile Spread	-1.6%	1.8%		-3.8%	-23.1%		2.7%	7.0%		3.2%	2.9%		0.2%	14.3%		3.3%	3.9%		3.1%	12.1%		-1.5%	-13.5%		1.3%	-6.7%	
	I.C.	0.050	0.011		-0.147	-0.074		-0.004	-0.002		-0.016	-0.003		-0.020	0.034		0.013	0.014		-0.006	0.050		-0.060	-0.010		-0.034	-0.004	

Emerging Markets — StarMine Models

The table below details performance of StarMine models in Emerging Markets. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		S	StarMine Al	RM		StarMine E	Q		StarMine I	v		StarMine R	v	Sta	rMine Pric	eMo	Sta	arMine Val-	Мо	StarMir	ne Smart H	loldings	Comb	ined Alpha	a Model		MMS	
		# stocks:	1338		# stocks: 1	429		# stocks: 1	295		# stocks: 1	1448		# stocks:	1429		# stocks: 1	1434		# stocks: 1	462		# stocks:	1434		# stocks: 1	234	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Large Cap (top 500)	Equal wt Avg Return	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51	1.4%	15.5%	1.51
	Top Decile	1.9%	45.6%	2.57	4.0%	28.3%	2.22	1.8%	29.6%	2.36	0.6%	32.4%	2.65	4.6%	47.2%	3.27	1.8%	46.2%	4.03	1.9%	18.4%	1.77	1.7%	37.0%	2.91	-1.8%	4.5%	0.41
	Bottom Decile	-1.5%	-6.0%	-0.46	1.0%	5.7%	0.48	2.0%	5.8%	0.44	1.7%	7.1%	0.52	-1.0%	-10.5%	-0.61	-1.9%	-6.3%	-0.38	-2.2%	-7.0%	-0.48	-3.1%	-8.6%	-0.47	-0.4%	18.5%	1.94
	Decile Spread	3.5%	53.0%	2.57	3.0%	20.9%	2.75	-0.2%	20.3%	1.17	-1.1%	21.4%	1.22	5.5%	61.0%	3.25	3.6%	53.8%	3.51	4.0%	26.0%	2.38	4.8%	47.1%	2.83	-1.4%	-12.1%	-1.17
	I.C.	0.094	0.099	3.39	-0.036	0.047	2.59	0.032	0.092	2.11	0.072	0.099	2.70	0.232	0.131	3.35	0.124	0.147	3.95	0.024	0.072	2.77	0.128	0.143	4.15	-0.082	-0.033	-1.10
Small Cap (next 1000)	Equal wt Avg Return	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00	0.9%	11.1%	1.00
	Top Decile	4.3%	34.9%	3.04	3.3%	24.8%	2.22	1.6%	39.1%	3.15	2.2%	39.7%	3.49	3.3%	56.8%	4.92	2.9%	58.6%	4.51	3.0%	22.9%	2.55	1.6%	43.7%	3.66	-0.2%	17.9%	1.42
	Bottom Decile	-0.3%	-0.7%	0.04	1.1%	-3.4%	-0.12	0.4%	-2.9%	-0.19	0.4%	-2.2%	-0.06	-2.0%	-14.7%	-0.64	-1.2%	-14.9%	-0.69	-1.8%	-5.4%	-0.27	-2.2%	-16.2%	-0.84	1.0%	17.3%	1.70
	Decile Spread	4.6%	33.4%	2.08	2.2%	26.7%	1.74	1.1%	41.0%	2.12	1.8%	39.4%	1.90	5.3%	75.6%	2.78	4.0%	77.8%	2.63	4.8%	27.4%	1.80	3.8%	65.0%	2.57	-1.2%	0.4%	0.08
	I.C.	0.087	0.084	3.26	0.042	0.065	2.88	0.082	0.108	3.72	0.099	0.120	3.42	0.128	0.118	2.25	0.137	0.154	3.40	0.127	0.086	2.92	0.148	0.143	3.38	0.002	0.005	0.29
Overall (top 1500)	Equal wt Avg Return	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17	1.1%	12.6%	1.17
	Top Decile	3.1%	38.5%	3.03	3.4%	26.3%	2.34	1.8%	38.3%	3.28	1.8%	38.1%	3.49	3.6%	52.3%	4.58	2.4%	52.9%	4.28	2.3%	21.0%	2.31	1.6%	42.3%	3.46	-0.8%	12.7%	1.05
	Bottom Decile	-0.6%	-2.6%	-0.11	0.9%	-3.8%	-0.17	1.0%	0.4%	0.10	0.7%	0.7%	0.12	-1.9%	-13.4%	-0.63	-1.4%	-12.9%	-0.65	-1.5%	-5.8%	-0.33	-2.4%	-13.4%	-0.70	0.8%	19.5%	2.06
	Decile Spread	3.7%	40.1%	2.43	2.5%	29.5%	2.37	0.8%	36.0%	2.06	1.1%	34.4%	1.83	5.5%	69.3%	2.89	3.8%	69.5%	2.77	3.8%	26.7%	2.16	4.1%	59.0%	2.52	-1.6%	-5.7%	-0.75
	I.C.	0.090	0.090	3.41	0.019	0.060	3.04	0.067	0.103	3.18	0.090	0.113	3.32	0.163	0.123	2.56	0.136	0.152	3.56	0.095	0.082	3.02	0.144	0.144	3.57	-0.028	-0.008	-0.50
Overall (top 1500)	Benchmark model																											
	Top Decile	2.0%	22.9%	2.11	3.3%	16.1%	1.57	3.3%	39.5%	3.40	3.3%	39.5%	3.40	6.1%	48.7%	3.21	0.4%	34.1%	2.98	4.3%	40.0%	2.67	2.4%	51.4%	3.83	2.0%	8.5%	0.83
	Bottom Decile	-0.7%	-3.5%	-0.18	1.2%	6.2%	0.51	3.7%	2.8%	0.26	3.7%	2.8%	0.26	-0.7%	-12.5%	-0.55	2.1%	-4.0%	-0.17	0.2%	-5.2%	-0.66	-2.2%	-17.0%	-0.99	-1.9%	5.5%	0.54
	Decile Spread	2.7%	26.0%	2.33	2.1%	8.6%	1.27	-0.3%	33.3%	1.84	-0.3%	33.3%	1.84	6.8%	64.0%	2.74	-1.6%	36.7%	2.04	4.1%	47.5%	3.95	4.6%	76.5%	3.21	3.9%	2.5%	0.43
	I.C.	0.040	0.066	3.09	0.010	0.036	2.24	0.066	0.104	3.17	0.066	0.104	3.17	0.211	0.105	2.67	0.071	0.115	3.39	0.115	0.130	3.27	0.162	0.172	4.36	0.039	0.005	0.46
Overall (top 1500)	StarMine Value Added																											
	Top Decile	1.2%	15.6%		0.1%	10.3%		-1.5%	-1.2%		-1.5%	-1.5%		-2.4%	3.6%		1.9%	18.9%		-2.0%	-19.0%		-0.8%	-9.1%		-2.8%	4.3%	
	Bottom Decile	0.2%	0.8%		-0.3%	-10.0%		-2.7%	-2.3%		-3.0%	-2.1%		-1.1%	-1.0%		-3.5%	-9.0%		-1.7%	-0.6%		-0.2%	3.6%		2.7%	14.0%	
	Decile Spread	1.0%	14.1%		0.4%	20.9%		1.2%	2.7%		1.4%	1.1%		-1.3%	5.3%		5.4%	32.7%		-0.2%	-20.8%		-0.5%	-17.5%		-5.5%	-8.3%	
	I.C.	0.050	0.023		0.009	0.025		0.001	-0.001		0.024	0.009		-0.048	0.018		0.065	0.037		-0.019	-0.048		-0.018	-0.028		-0.067	-0.013	

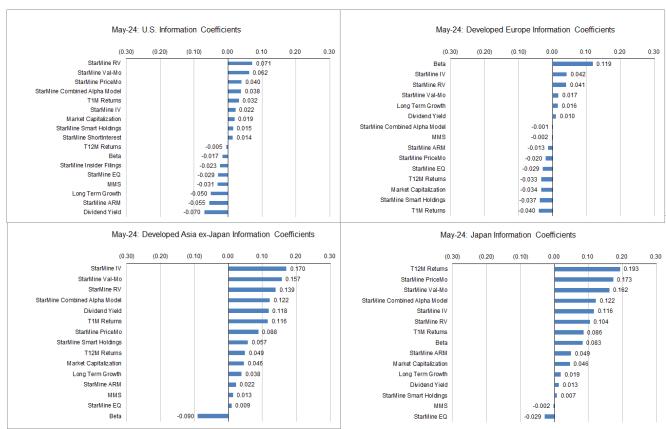
The table below details performance of StarMine models in select Emerging Market countries. We display the performance in May as well as the annualized performance over the last 12 months. We also show performance of the corresponding benchmark models.

		1 :	StarMineAR	M	1 :	StarMineE	2	1 :	StarMine I	v		StarMine R	v	Sta	arMine Pric	eMo	St	arMine Val	-Mo	StarMi	ne Smart I	loldinas	Comb	ined Alphi	a Model	l	MMS	
		May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe	May-24	T12M	Sharpe
Brazil (top 200)	Equal wt Avg Return	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45	0.6%	7.8%	0.45
	Top Decile	-0.8%	21.2%	0.83	-1.9%	3.7%	0.28	9.4%	58.2%	2.01	10.1%	42.0%	2.08	-2.8%	21.5%	1.52	-1.7%	23.3%	1.37	-3.4%	-2.0%	-0.05	-2.9%	9.7%	0.76	-5.2%	5.4%	0.37
	Bottom Decile	-1.1%	3.9%	0.26	4.6%	-8.2%	-0.36	0.1%	-6.4%	-0.31	6.8%	-15.1%	-0.67	-4.1%	-13.9%	-0.21	6.3%	-11.2%	-0.14	17.0%	23.6%	0.64	3.4%	-9.3%	-0.09	8.9%	0.6%	0.13
	Decile Spread	0.3%	12.5%	0.58	-6.5%	12.3%	1.11	9.3%	69.3%	4.07	3.4%	64.7%	7.91	1.3%	27.2%	0.98	-7.9%	26.4%	0.99	-20.4%	-35.6%	-0.81	-6.3%	8.6%	0.44	-14.1%	2.7%	0.24
	I.C.	-0.100	0.006	0.20	-0.085	0.022	1.06	-0.067	0.101	3.65	-0.062	0.102	3.07	-0.015	0.084	1.78	-0.085	0.092	2.24	-0.114	0.035	0.79	-0.085	0.062	1.56	-0.151	-0.009	-0.32
China (top 300)	Equal wt Avg Return	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22	0.2%	-4.4%	-0.22
	Top Decile	-0.7%	4.1%	0.30	0.9%	2.3%	0.22	3.6%	15.0%	1.17	2.4%	19.7%	1.69	1.1%	1.7%	0.22	2.9%	24.0%	1.83	1.5%	4.5%	0.38	2.5%	13.9%	1.10	-0.9%	-0.6%	0.02
	Bottom Decile	-0.9%	-25.4%	-1.40	-0.4%	-16.6%	-0.74	-5.2%	-28.3%	-1.26	-4.8%	-28.6%	-0.94	0.4%	-23.0%	-1.02	-3.5%	-27.2%	-1.08	-0.4%	-16.3%	-1.01	-3.3%	-30.7%	-1.52	0.8%	-4.0%	-0.15
	Decile Spread	0.2%	37.1%	2.21	1.4%	20.5%	1.68	8.8%	49.8%	1.59	7.2%	51.4%	1.44	0.6%	26.0%	1.21	6.4%	58.7%	1.89	1.9%	23.3%	2.05	5.9%	56.8%	2.50	-1.8%	2.7%	0.41
	I.C.	-0.006	0.083	2.60	-0.004	0.026	1.15	0.302	0.134	1.74	0.354	0.169	2.06	0.084	0.082	1.35	0.259	0.184	2.54	0.033	0.090	2.18	0.153	0.146	2.77	-0.096	0.018	1.02
India (top 500)	Equal wt Avg Return	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58	3.9%	60.8%	4.58
	Top Decile	5.7%	106.8%	5.54	7.6%	66.3%	5.40	2.0%	91.1%	4.20	1.7%	97.7%	4.43	5.0%	92.1%	4.33	1.8%	135.4%	4.96	1.8%	87.1%	4.10	3.5%	112.6%	4.79	4.4%	69.8%	5.09
	Bottom Decile	3.7%	33.1%	2.33	1.7%	85.7%	5.00	4.5%	43.9%	3.36	4.9%	65.5%	5.63	2.3%	33.4%	1.81	2.4%	32.6%	2.10	-0.1%	43.7%	2.91	1.2%	33.0%	2.08	4.1%	47.5%	2.95
	Decile Spread	2.0%	56.4%	4.47	5.8%	-11.8%	-1.09	-2.5%	34.0%	2.71	-3.3%	20.7%	1.79	2.7%	43.8%	2.84	-0.6%	79.1%	4.04	2.0%	31.3%	3.49	2.3%	60.8%	3.76	0.4%	14.8%	1.53
	I.C.	0.061	0.113	4.28	-0.008	-0.001	-0.04	-0.035	0.105	3.84	-0.023	0.084	3.33	0.055	0.100	3.59	-0.001	0.132	4.47	0.042	0.077	4.93	0.005	0.138	4.76	0.027	0.009	0.59
Taiwan (top 800)	Equal wt Avg Return	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96	3.1%	26.3%	1.96
	Top Decile	5.7%	32.9%	1.85	3.0%	37.6%	2.55	4.0%	37.2%	3.52	5.1%	42.7%	3.37	2.6%	34.4%	2.41	2.8%	52.6%	4.47	2.1%	33.5%	2.27	2.9%	50.3%	3.71	1.8%	12.9%	0.77
	Bottom Decile	0.9%	11.6%	0.89	3.6%	13.2%	1.24	5.1%	22.8%	1.27	2.9%	5.5%	0.41	3.4%	3.4%	0.33	1.1%	8.0%	0.66	2.8%	3.8%	0.37	0.7%	4.7%	0.47	3.4%	26.0%	2.47
	Decile Spread	4.8%	19.1%	1.72	-0.6%	21.9%	2.76	-1.1%	9.5%	0.68	2.2%	33.1%	1.92	-0.8%	29.5%	2.75	1.7%	40.2%	2.94	-0.7%	28.3%	2.54	2.1%	43.1%	3.67	-1.6%	-10.6%	-0.65
	I.C.	0.072	0.016	0.66	0.073	0.056	2.50	0.035	0.105	3.47	0.084	0.123	4.50	-0.057	0.090	3.28	0.003	0.127	5.12	-0.011	0.099	4.29	0.015	0.113	4.91	0.066	0.009	0.30
Korea (top 800)	Equal wt Avg Return	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97	2.3%	14.0%	0.97
	Top Decile	2.8%	18.2%	1.27	2.0%	15.1%	1.02	-1.2%	9.8%	0.93	1.3%	18.6%	2.07	3.3%	20.6%	0.96	1.8%	23.4%	2.00	1.9%	16.8%	1.37	4.6%	23.2%	1.69	4.6%	22.1%	1.31
	Bottom Decile	-2.0%	6.0%	0.36	-4.7%	-4.5%	-0.03	-3.6%	-13.3%	-0.28	-5.7%	-14.3%	-0.24	1.0%	-1.2%	-0.05	-2.7%	-13.0%	-0.40	-4.5%	-7.3%	-0.14	-1.8%	-13.5%	-0.50	2.4%	21.8%	1.74
	Decile Spread	4.7%	7.7%	0.51	6.7%	15.5%	0.90	2.4%	14.4%	0.58	7.0%	21.6%	0.72	2.3%	22.5%	1.30	4.5%	33.5%	1.30	6.4%	19.1%	0.89	6.4%	36.4%	1.62	2.2%	0.1%	0.07
	IC .	0.112	0.022	0.75	0.155	0.073	2.33	0.026	0.083	1.30	0.185	0.132	2 02	0.066	0.034	1 02	0.170	0.113	2.08	0.146	0.074	1.76	0.178	0.108	2.51	0.070	0.008	0.35

What Worked Last Month

The StarMine valuation models, IV and RV, were among the top ranked factors when sorted by Information Coefficients (I.C.s) in all four of our regions. Except in Developed Europe, StarMine PriceMo and T1M Returns were also positive. This combination of valuation and momentum performance drove the overall StarMine combo models, Val-Mo and Combined Alpha Model, to the top of factor ranks. Unlike recent months, Beta generated positive I.C.s in Japan and Developed Europe, where it was the top-ranked factor. In contrast, it was the bottom-ranked factor in Developed Asia ex-Japan. MarketPsych Media Sentiment (MMS) and StarMine Earnings Quality (EQ) were among the bottom-ranked negative I.C. factors across all four regions. The "smart money" model, Smart Holdings, generated positive I.C.s in the U.S., Developed Asia ex-Japan, and Japan (although just barely). The other two U.S.-only "smart money" models generated mixed results with Short Interest generating a small positive I.C. and Insider Filings in negative territory. Market Capitalization was a positive factor in every region except Developed Europe. Long-Term Growth was positive in every region except the U.S.

The charts below show I.C.s for StarMine models and other common factors in May.



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