



# Emerging Markets

Arup Datta, MBA, CFA  
Senior Vice President, Portfolio Manager  
Mackenzie Global Quantitative Equity Team

**BE INVEST+ED**



# Cohesive and experienced quantitative investment team

## Key benefits of our approach for clients

- Lead PM brings 30 years of experience working for institutional
- Track record of innovation and success in long-only, long-short, extension and low volatility strategies across regions
- Core focus that aims to add value across a variety of market conditions
- Nimble – incorporating daily changes in alpha model
- Daily rebalancing & trading, predictive transaction cost modelling, focus on capacity

## Institutional background

- Dedicated investment team with institutional experience, aligned philosophy and process
- Quantitative team with a history of working together, 5 members worked together for the past 9 years
- 18 years average PM experience



**Arup Datta,**  
**CFA**

- Senior Vice President, Team Lead
- (30)



**Nicholas Tham,**  
**CFA**

- Vice President, Portfolio Manager
- (13)



**Denis Suvorov,**  
**CFA**

- Vice President, Portfolio Manager
- (21)



**Haijie Chen,**  
**PhD, CFA**

- Vice President, Portfolio Manager
- (11)



**Noi Wong**

- Senior Investment Analyst
- (17)



**Connor Lehan,**  
**CFA**

- Senior Investment Analyst
- (4)



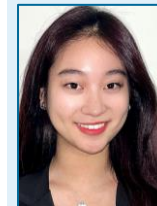
**Qunying Zhang**

- Investment Analyst
- (2)



**Pankaj Kumar**

- Investment Analyst
- (6)



**Selena Kang**

- Associate Investment Analyst
- (<1)



**Anthony Burdin,**  
**CFA**

- Quantitative Trader
- (18)



# Mackenzie Global Quantitative Equity Team

## Mandates

Mackenzie Emerging Markets Fund

Mackenzie Global Equity Fund

## Shared mandates

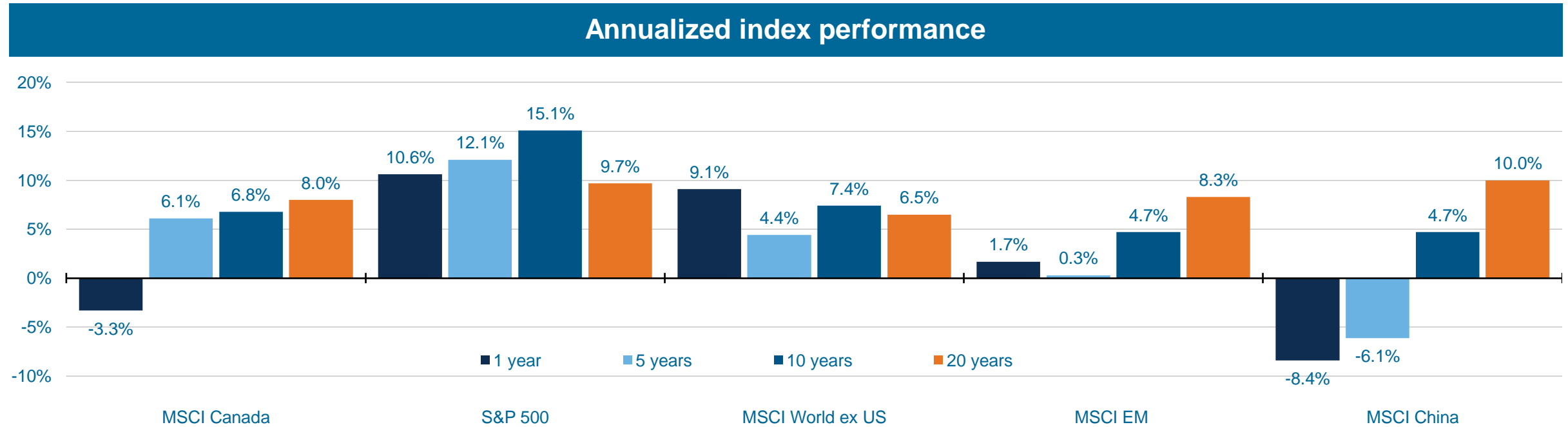
Mackenzie Private Equity Replication Fund

**Team assets: \$9.6 billion\***

Approximate AUM as of June 30, 2023



# EM has generally performed well over the long run



**Strong return potential**



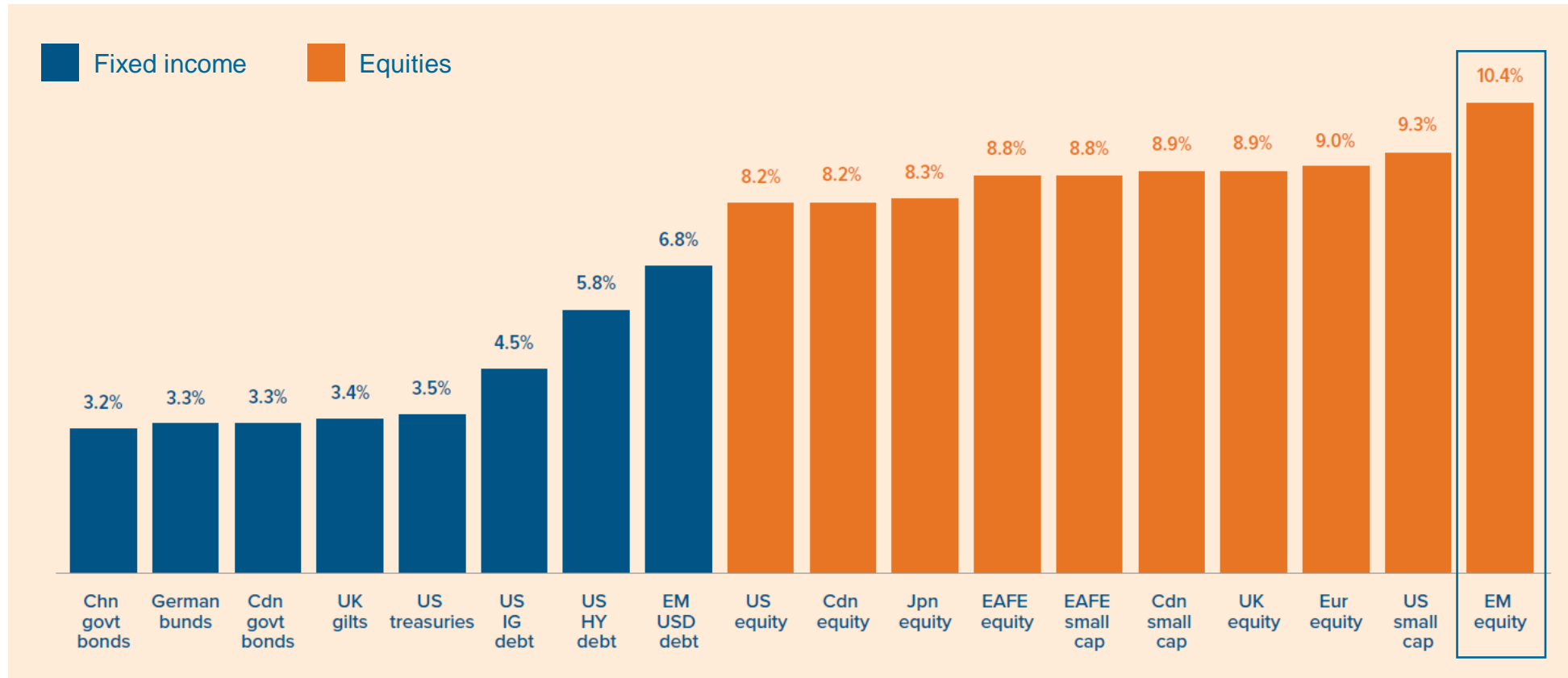
**Diversification** when combined with developed markets



**Future growth potential** as EM countries further develop and grow faster



# We expect EM to outperform over 10 years

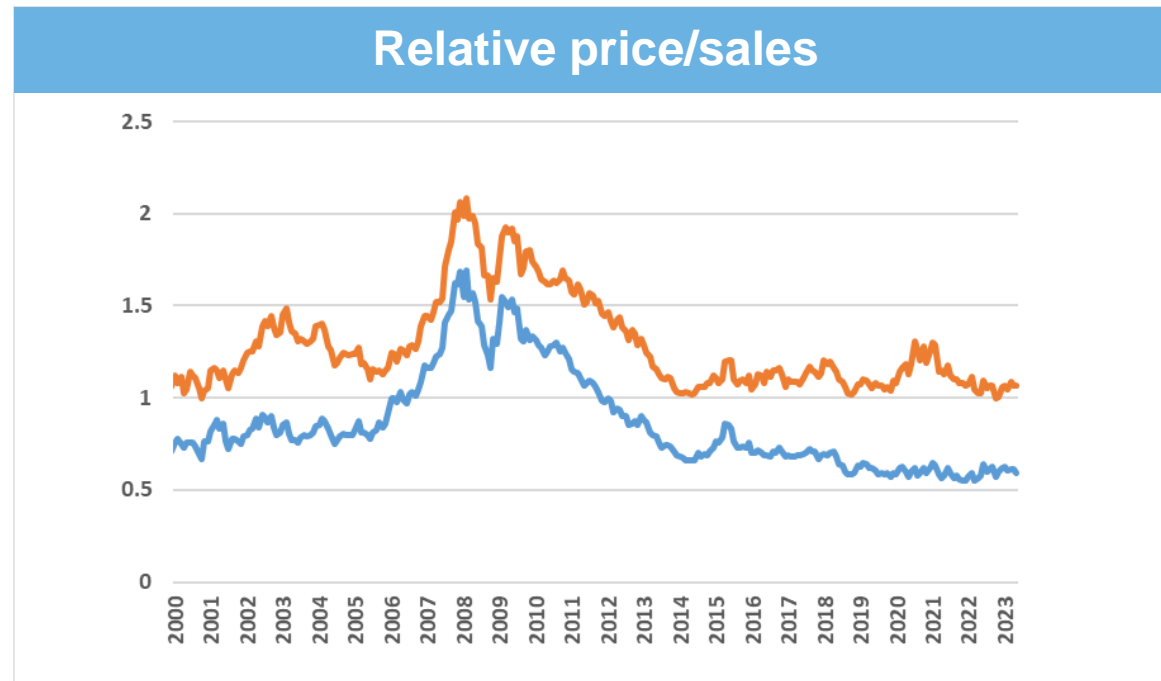


Expected geometric returns are shown on a nominal basis, before fees for all asset classes. Management fees will vary by asset class, with higher expected for private assets than for public assets. Further details on how Mackenzie developed these expected returns, including regarding the assumptions used, are available upon request. Estimates using data as of November 30, 2022.

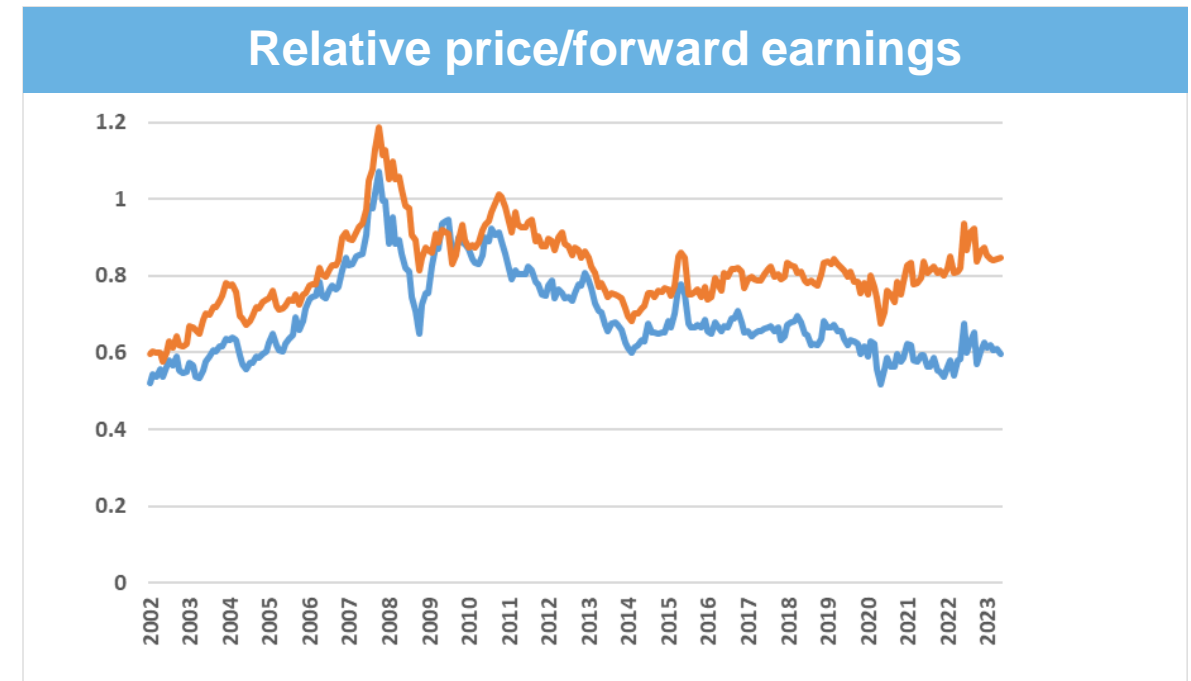


# EM valuations appealing vs DM

- Emerging Markets valuations are very attractive relative to U.S.
- Emerging Markets valuations are moderately attractive relative to International



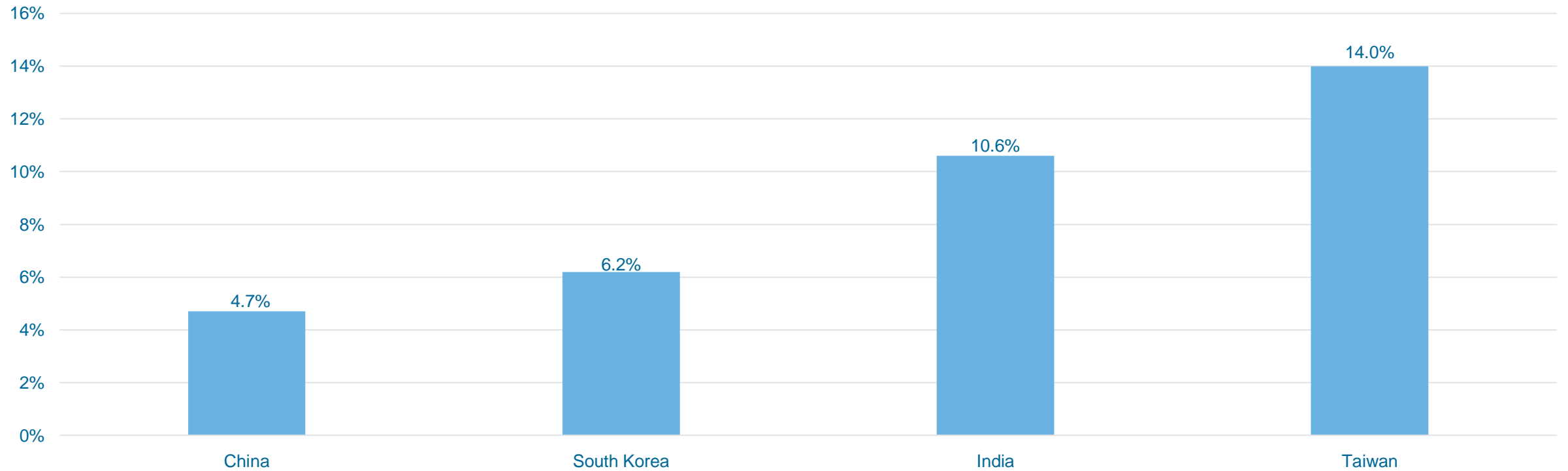
— EMLC / ILC  
— EMLC / USLC





# Benefits of country diversity in EM

Annualized country returns - 10 years





# Quant advantages vs fundamental

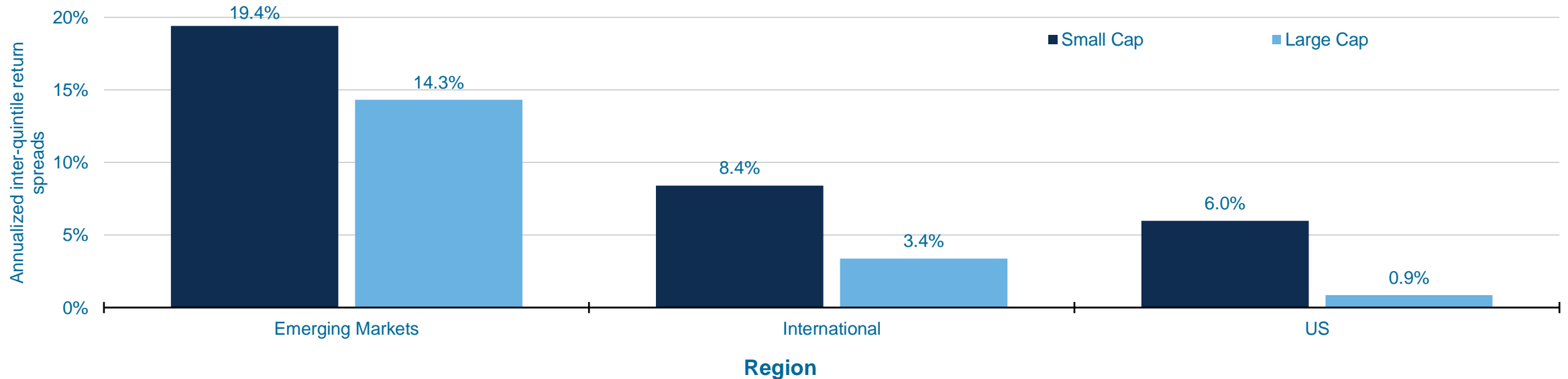
Quantitative Investing	Fundamental Investing
Computing power	Limited by human brain capacity
<b>Broader knowledge of stock universe</b>	Deeper knowledge of a select few stock
<b>Proprietary risk &amp; transaction cost models</b>	Relies on external risk model vendors; transaction cost unaware
<b>Daily trading – quick reaction to latest information</b>	Takes time to act
Judgement applied in a systematic process	Judgement applied throughout process
Timing of buy/sell built into process design	Timing of buy/sell based on judgement
Doesn't believe in meeting with management	Believes in meeting with management
Same portfolio positioning	Not necessarily the case





# EM sweet spot for quants

## Quantitative alpha efficacy



**Quant advantage in EM given the breadth of names**



**Easier to cover asset class using quantitative techniques**



**Less market efficiency**



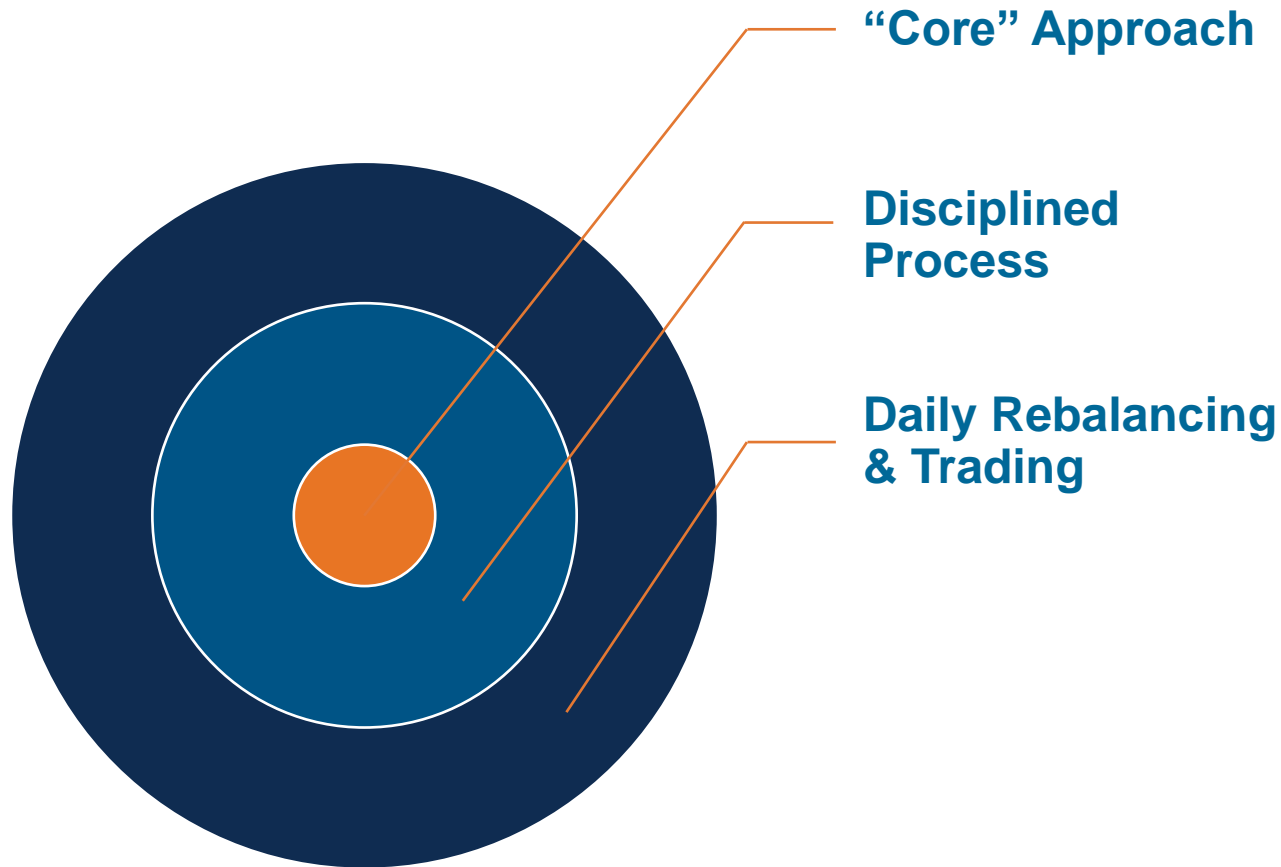
**Fewer investment managers relative to developed markets**



**Alpha potential**



# Targeted investment approach



- A balance of factors that aims to add value across a variety of market conditions
- Stock selection process driven by factors grounded in research and guided by a strong focus on consistent portfolio structure and risk management
- Allows us to incorporate the freshest rankings into the portfolio based upon new information with a strict focus on capacity management and efficient trading

# EM investment universe

- Broad universe of 10,000 EM and Frontier securities
- USD \$500,000 median daily trading volume or index membership

## Emerging

Brazil, Chile, China, Columbia, Czech Republic, Egypt, Greece, Hungary, India, Indonesia, Korea, Kuwait, Malaysia, Mexico, Peru, Philippines, Poland, Qatar, Saudi Arabia, South Africa, Taiwan, Thailand, Turkey, United Arab Emirates

## Frontier

Argentina, Morocco, Nigeria, Pakistan, Vietnam





# Peer universe

➤ Comparisons made within a sector within a region

➤ 4 regions and 11 sectors

➤ Industry models where differentiated – e.g. banks, real estate, REITs

## Investible universe

Sector	Emerging Markets			
	China	Asia-ExChina	EMEA	LatAm
Communication Services	1.93%	1.50%	0.15%	0.39%
Consumer Discretionary	7.10%	3.50%	0.49%	1.15%
Consumer Staples	2.98%	1.96%	0.48%	0.89%
Energy	0.99%	0.64%	0.23%	0.33%
Financials	1.87%	2.94%	0.59%	1.66%
Health Care	5.60%	2.99%	0.14%	0.37%
Industrials	13.57%	5.48%	0.53%	1.49%
Information Technology	9.69%	6.98%	0.09%	0.34%
Materials	8.29%	3.54%	0.48%	1.58%
Real Estate	2.00%	1.06%	0.19%	0.81%
Utilities	1.45%	0.73%	0.43%	0.44%



# We use a balance of “super factors”

- Bottom-up stock selection process
- Core focus aimed at outperforming in different market cycles
- Consistent investment philosophy
- Always looking to add new insights into the process

## SUPER FACTORS



### Value

Focuses on value metrics: Quality value (cash flow and dividend based), Pure value (book, revenue, or earnings based), Neglect and Linked Firms



### Growth

Emphasis on sell-side analyst revisions in forecast (earnings, sales and dividends), long-term growth, innovation and insight from linked companies.



### Quality

Focuses on management, capital allocation, operating efficiency, employee sentiment, ESG and the application of accounting principles.



### Informed investor

Factor looks at informed market participant activity, such as the short interest in and options on securities.



# A mix of old and new

## Alpha factors must evolve

- Pure & Quality balance within value
- Enhancements to contextual models - Every stock has its own factor weights based on contextual variables
- Emphasis on analyst forecasts within revisions
- Human override – extreme events
- New factors such as linkage, long-term growth and ESG

## SUPER FACTORS OVERVIEW

Value	Growth	Quality	Informed Investor
Pure	Earning	Accounting/Operating efficiency	Short interest
<ul style="list-style-type: none"><li>P/E</li><li>GP/EV</li></ul>	Sales	Capital allocation	Options
Quality	Dividend	<b>Management</b>	
<ul style="list-style-type: none"><li>P/CF</li><li>Div Yield</li></ul>	Momentum	<b>Volume</b>	
<b>Neglect</b>	<b>Linkage</b>	<b>Employee Sentiment</b>	
<b>Linked Firms</b>	<b>Long-term Growth</b>	<b>ESG</b>	
	<b>Innovation</b>	<b>Fundamentals Prediction</b>	

Contextual Beta, growth, size and volatility



# Stock examples

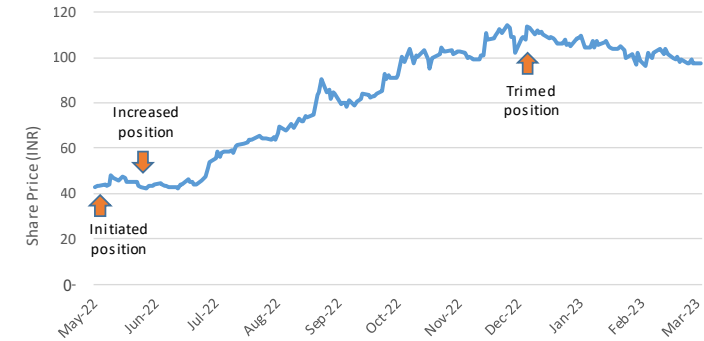
➤ **Karur Vysya Bank (KVB IN)** is a commercial bank headquartered in Karur in Tamil Nadu, India

**Sector/industry:** financials/banks

**Market cap:** \$987m usd

- We initiated our position in May 2002 and increased our position in June 2002
- Our alpha (expected return) has been very positive throughout and remains positive
- Positive alpha was driven by our Value and Growth factors, particularly target-price based valuation and earnings revisions sub-factors
- Alpha continues to be attractive, however it is now mostly driven by earnings revisions

## Stock Example: Karur Vysya Bank



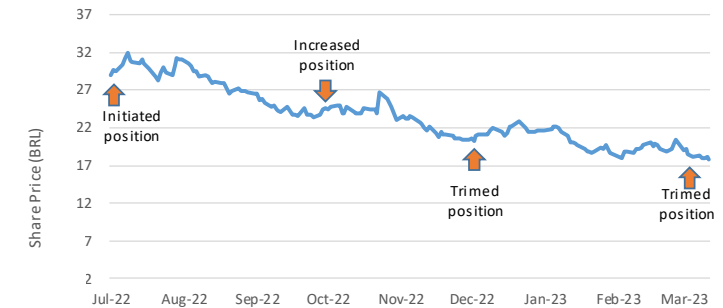
➤ **JBS S.A. (JBSS3 BZ)** is a Brazilian company that is the largest meat processing company in the world, producing factory processed beef, chicken and pork

**Sector/industry:** consumer staples/food & beverage

**Market cap:** \$7.9b usd

- We initiated our position in July 2002 and had positive gain initially
- Projected alpha on 8/1/22 was attractive, with broad-based contributions from our Quality and Value factors and Growth also slightly contributing
- We trimmed our position in December 2022 and March 2023
- Projected alpha declined across all super factors and other stocks became more attractive

## Stock Example: JBS S.A.



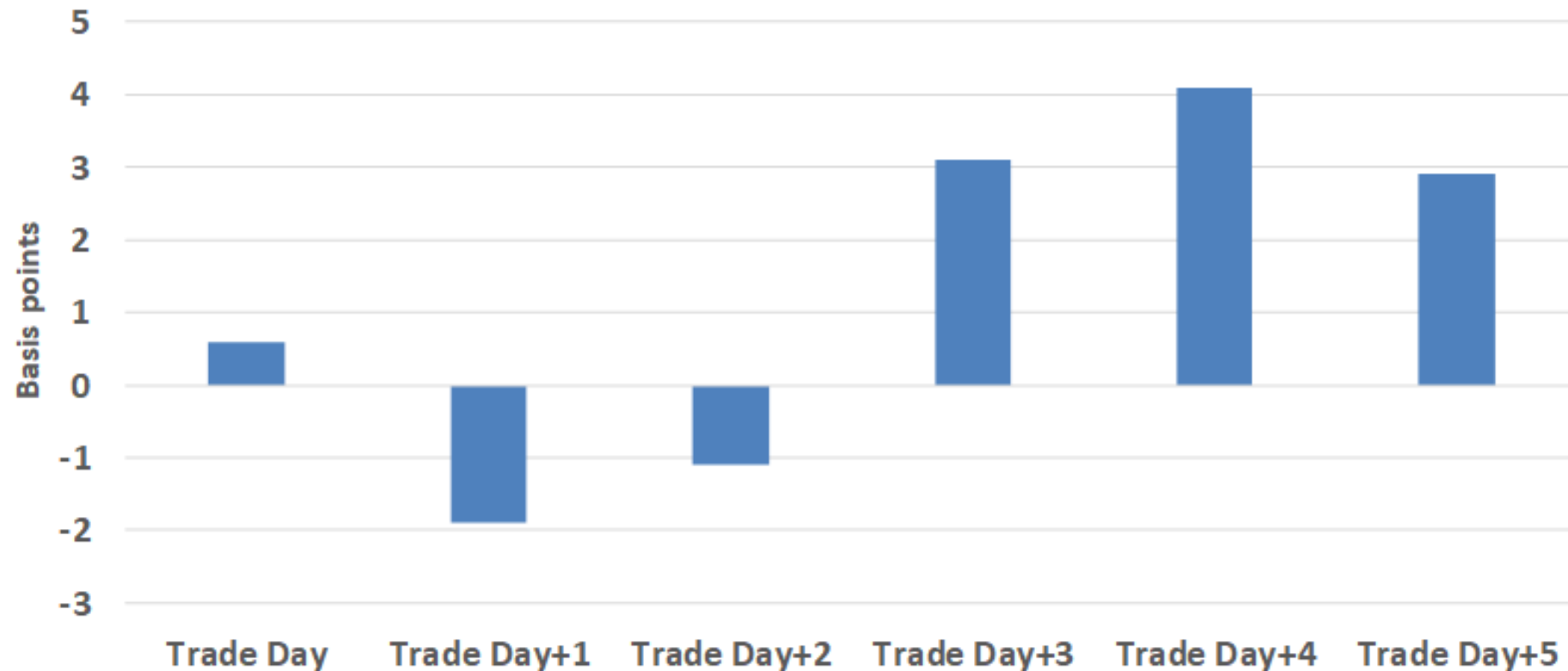
Source: Mackenzie Investments

The example above is provided for illustrative purposes only and should not be considered a forecast. It is based on proprietary models and represents a subset of factors utilized as of March 31, 2023. As of March 31, 2023 these stocks were held within the Mackenzie Global Quantitative Equity portfolios.



# Daily rebalancing: Short-term performance of trades

Short-term performance: price vs. close (5/31/18 – 12/31/22)







# Portfolio characteristics

A balance of factors

		Mackenzie Emerging Markets Fund	MSCI Emerging Markets IMI
	# of Holdings	172	3,244
	% Top 10 Holdings	27.1%	20.9%
	Weighted Avg. Market Cap (US\$B)	90.1	95.6
	Predicted Beta	0.99	1.00
Value	P/E (forecast)	9.5	12.4
	P/Tangible Book	1.6	2.0
	P/Cash Flow	5.02	7.32
	P/Sales	0.75	1.18
	Dividend Yield	3.9%	3.1%
Growth	% Net Earnings Revisions (3MO)	17%	-14%
	% Net Sales Revisions (3MO)	16%	-6%
	% Net Target Price Revisions (3MO)	34%	8%
Quality	Share Buy Back	-0.5%	-0.6%
	FCF Margin	13.9%	13.1%



# EM factor performance over time

Average Monthly Long Decile Returns by Year								
EM Large Cap (%)					EM Small Cap (%)			
Year	Value	Growth	Quality	Informed Investor	Value	Growth	Quality	Informed Investor
2000	0.31	0.75	0.64		1.26	0.00	0.89	
2001	1.92	0.73	0.44		2.27	-0.22	0.53	
2002	0.63	0.52	1.20		1.78	1.70	1.80	
2003	1.47	0.75	0.50	-0.13	1.07	1.49	1.10	0.26
2004	0.79	0.66	0.62	0.59	1.69	0.89	0.80	0.71
2005	0.86	1.87	0.08	0.86	1.72	1.59	0.28	0.41
2006	0.15	0.95	0.30	-0.23	0.83	1.29	0.61	-0.05
2007	0.37	1.22	0.14	-0.04	1.30	1.48	0.83	-0.04
2008	0.73	-0.67	0.62	0.89	1.51	-0.49	1.44	0.64
2009	1.61	-0.16	0.44	-0.30	2.14	0.51	0.99	-0.29
2010	0.49	0.54	0.57	0.13	0.69	1.00	0.94	0.30
2011	-0.13	0.86	0.86	0.31	0.36	1.20	0.77	0.35
2012	0.26	0.50	0.12	0.14	0.65	1.22	1.14	0.57
2013	0.30	1.09	-0.10	0.04	0.47	1.38	0.58	0.30
2014	0.02	0.65	0.40	-0.19	0.56	0.59	0.72	-0.33
2015	0.11	1.15	0.23	-0.43	0.06	0.94	0.04	-0.47
2016	1.17	0.00	0.88	0.74	0.91	0.20	0.85	0.52
2017	0.54	1.45	0.87	0.81	0.85	1.57	1.18	0.73
2018	0.53	-0.05	0.62	0.14	0.81	0.22	0.75	0.72
2019	-0.38	0.68	0.15	-0.08	0.05	0.60	0.27	-0.04
2020	-0.59	1.68	-0.14	0.00	-0.08	0.87	0.08	0.11
2021	0.39	0.74	-0.11	-0.55	0.56	1.30	0.53	-0.20
2022	0.87	0.00	-0.08	0.34	0.92	0.64	0.91	0.36
2023 YTD	1.21	-0.33	0.11	0.10	0.42	0.43	0.30	0.06
Average Full period	0.55	0.67	0.40	0.15	0.96	0.86	0.77	0.22
Last 10 years	0.39	0.63	0.27	0.11	0.53	0.74	0.57	0.18

Source: Mackenzie. Represents univariate factor performance of Mackenzie's Global Quantitative Equity EM model based on simulations from January 2000 – June 2023. This factor performance does not represent the performance of any strategy. Past performance is not necessarily indicative of any future results.



# Portfolio performance

	YTD	1 Yr	3 Yr	Since Inception*
<b>Mackenzie Emerging Markets Fund - Series F</b>	<b>7.0%</b>	<b>2.4%</b>	<b>8.9%</b>	<b>1.9%</b>
MSCI Emerging Markets IMI Index	2.0%	-0.9%	4.2%	0.2%
<b>Excess Return</b>	<b>5.0%</b>	<b>3.3%</b>	<b>4.7%</b>	<b>1.6%</b>

	2019	2020	2021	2022
<b>Mackenzie Emerging Markets Fund - Series F</b>	<b>11.6%</b>	<b>18.9%</b>	<b>5.4%</b>	<b>-13.9%</b>
MSCI Emerging Markets IMI Index	12.0%	16.1%	-1.0%	-14.2%
<b>Excess Return</b>	<b>-0.4%</b>	<b>2.8%</b>	<b>6.4%</b>	<b>0.3%</b>



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