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**QuantInsti**

# Navigating India: Effective Strategies to Capture the Best Structural Growth Opportunity in Emerging Markets

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As with all investments, your capital is at risk

# MSCI India (USD) Index Derivatives

**Navigating investment opportunities in India through Offshore index futures**



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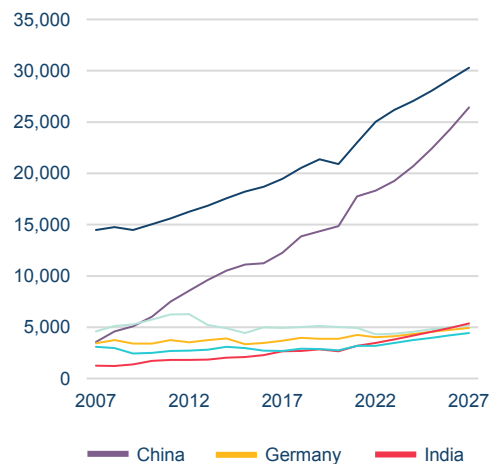
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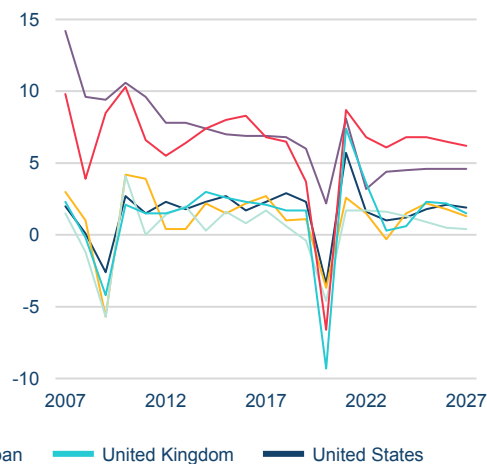
# Growing importance of India

As an emerging economic powerhouse experiencing rapid growth, India represents an compelling opportunity for investors.

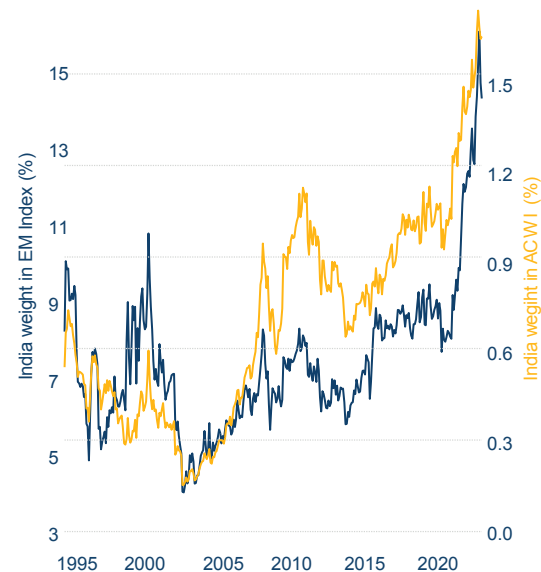
GDP, current prices (USD bn)



Real GDP growth (Annual % change)



India weight in EM and ACWI (%)<sup>2</sup>



India, the world's fifth largest economy and one of the fastest growing major markets, is forecast to become **the third largest economy** globally by the end of this decade.<sup>1</sup>

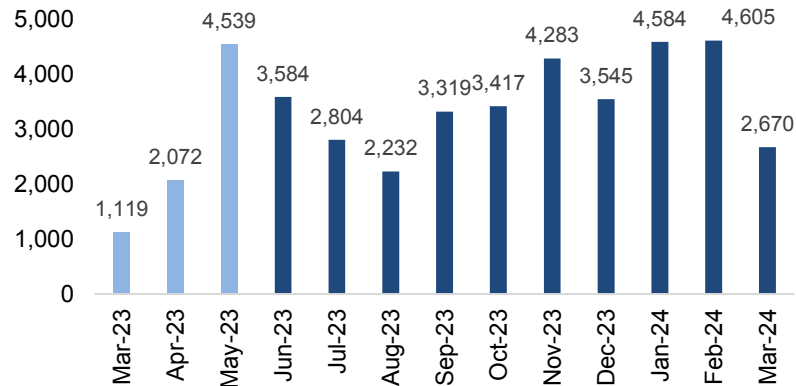


1. Source: IMF, forecasts from 2022 to 2027 ([link](#))  
2. Source: MSCI

# MSCI India Index Futures

## Significant liquidity accumulation since Jun-23

Average Daily Volume

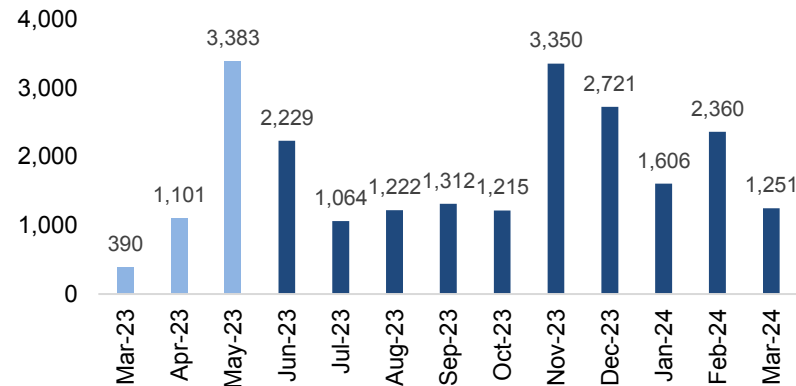


### Average Daily Volume

**US \$143 million**

2,670 contracts in Mar-24

Open Interest (month-end)



### Average Open Interest

**US \$110 million**

2,107 contracts in Mar-24

### Market Share

**5.0% vs SGX & IFSC**

% ADV Notional in Mar-24



Data Source: Bloomberg, HKEX, As of 29 March 2024

# Orderbook liquidity supported by professional LPs

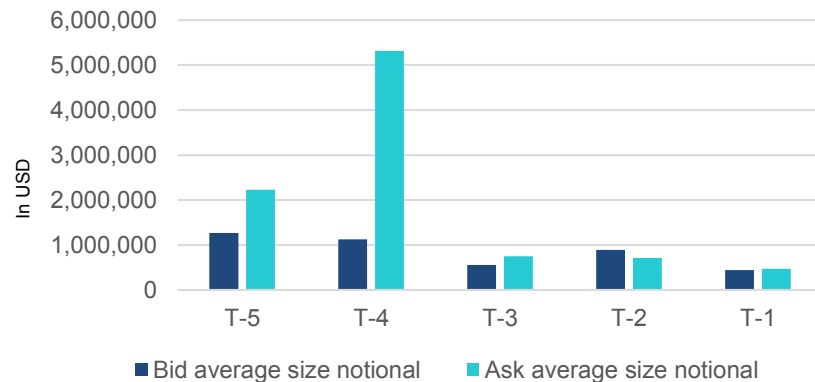
## Average monthly spread for outright spot month<sup>1</sup>

Month	T session (during Indian market open)
Jan 2024	4.4 bps
Feb 2024	4.0 bps
Mar 2024	4.8 bps

## Average monthly BBO size for outright spot month<sup>1</sup>

Month In USD	T session (during Indian market open)		T+1 session	
	Bid	Ask	Bid	Ask
Jan 2024	131K	132K	125K	131K
Feb 2024	154K	149K	138K	142K
Mar 2024	130K	132K	119K	114K

## March 2024 roll calendar spread BBO size



## Key observations

- The outright order book is supported by 7 LPs in T session and 4 LPs in T+1 session
- Decent size at touch throughout the month with more than USD 130k at BBO
- With 4 LPs supporting the roll calendar spread order book, we see USD 1.2m at BBO during roll period
- The size is consistent since the roll out of LP program in March



# MSCI India (USD) Index Futures

The CFTC-certified **MSCI India (USD) Index Futures** contract is an alternative to the Nifty 50 Index Futures. Key contract specifications comparison includes:

	Contract size	Tick size	Block trade minimum threshold	Position limit <sup>2</sup>
MSCI India PR (HRTA Index)	USD 53K	USD 1	USD 1.3M	USD 2.2B
NSE IFSC Nifty 50 (JGSA Index)	USD 45K	USD 1	USD 2.2M	USD 1.3B

▼  
**Similar contract size as Nifty 50 Index Futures**

▼  
**Same tick size as Nifty 50 Index Futures**

▼  
**To facilitate liquidity building via block crossing**

▼  
**Maintain the higher position limit on the original contract**



1. Valuation date at 29 March 2024  
2. Net contracts long or short across all Contract Months

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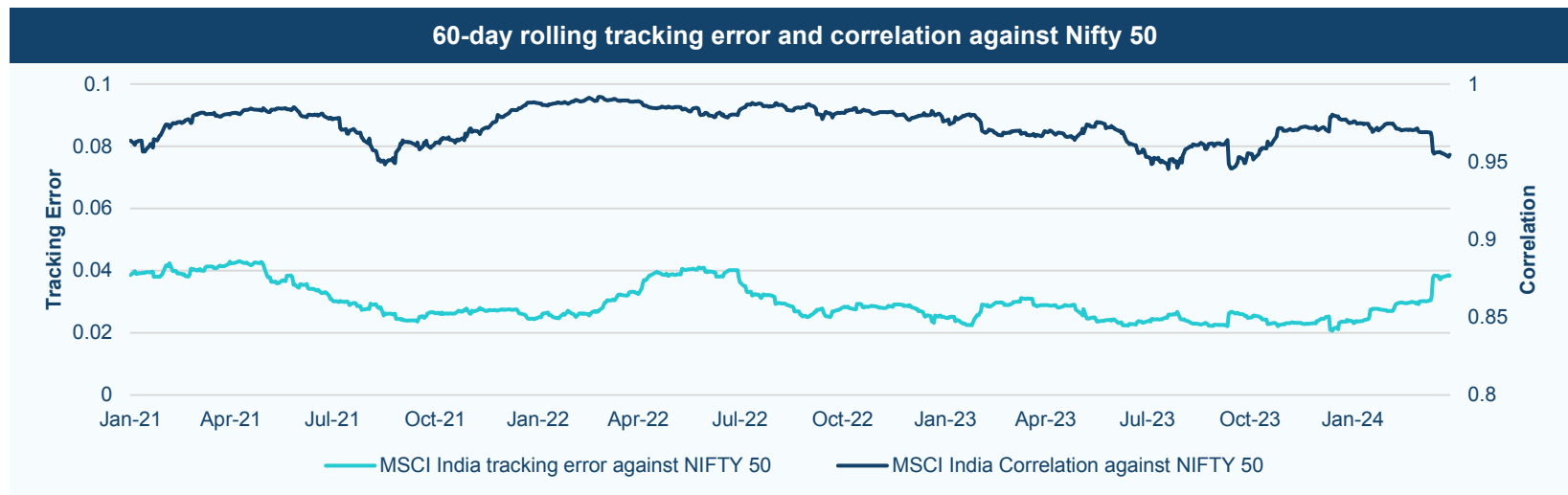


# MSCI India (USD) Index: Highly correlated to Nifty 50

MSCI India has a **high correlation to the Nifty 50** (0.96), serving as an alternative to the onshore Nifty contract.

MSCI India has historically exhibited a strong correlation and low tracking error relative to the Nifty 50, even during periods of market stress, demonstrating its reliability as a proxy for India equity market performance.

The MSCI India Price Return and Net Total Return contracts are offered on the same platform, allowing for margin offsets of around 17% between the two contracts.



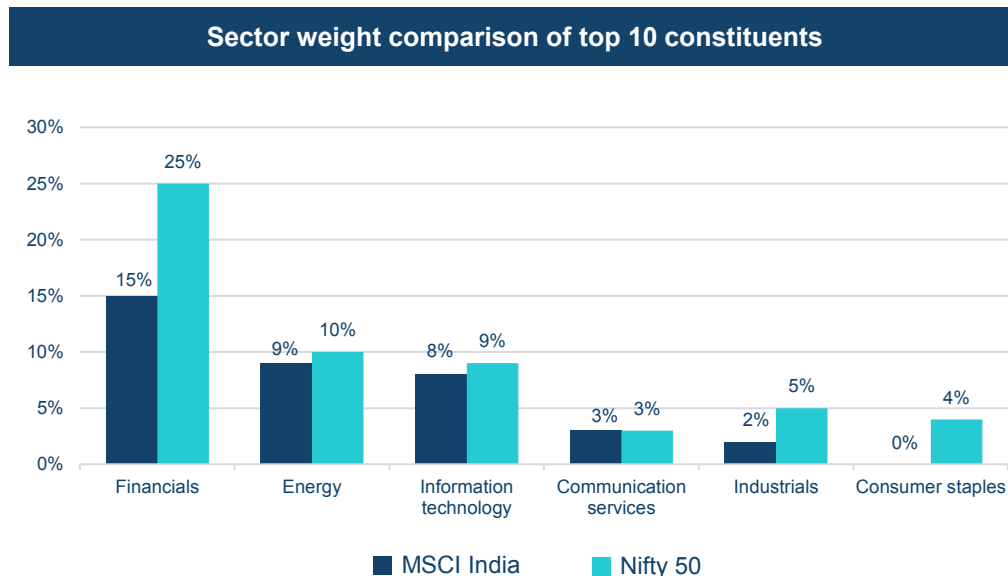
Source: Bloomberg, as of 29 March 2024

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# MSCI India (USD) Index: Sector diversification

By design, MSCI India includes a larger number of constituent stocks (136 in Mar 2024) than the Nifty 50. More importantly, MSCI India offers greater diversification in its top 10 holdings, with less concentration in the Financials and Industrials sectors than the Nifty 50.

In addition, sizable ETFs track MSCI India, with AUM of around USD 16 billion and average daily trading volume of USD 245 million.



Source: MSCI and NSE India website, as of 29 March 2024

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# Trading India in HKEX

## Clear and stable regulatory regime

- HKEX has transparent rules and regulations governing trading activities, including block trades. This enables international investors to trade the Indian market using familiar mechanisms

## Strength of clearing house

- HKEX's clearing house, HKFE Clearing Corporation Limited (HKCC), is recognized as a third-country CCP by ESMA

## Hedge India's equity and currency risks in one marketplace

- HKEX's INR/USD and INR/CNH Futures complement the MSCI India Index Futures, allowing investors to manage risks across India's equity and currency markets in one venue
- Block trade facilities are available for the INR futures contracts

## Diversified investor base in HKEX's markets

- Local retail investors contributed approx. 13% of Hong Kong's derivatives market trading volume<sup>1</sup>
- A diverse mix of market participants with varied sentiments and strategies enables more trades to happen



1. Source: HKEX Derivatives Market Transaction survey. Data from July 2019 to December 2020

# Comparison of contract specifications onshore/offshore

		NSE Nifty 50 Index Futures (onshore)	NSE IFSC Nifty 50 Index Futures (via GIFT Connect)	MSCI India (USD) Index Futures (HKEX)
1	Trading Currency	INR	USD	USD
2	Contract Multiplier	INR 50	USD 2	USD 20
3	Contract Months	the near month (one), the next month (two) and the far month (three).	Spot Month, the next calendar month and the next four calendar quarter months (i.e. quarterly months are March, June, September and December)	
4	Last Trading Day	Nifty 50 futures contracts expire on the last Thursday of the expiry month. If the last Thursday is a trading holiday, the contracts expire on the previous trading day.		The last Thursday of the expiry month. If the last Thursday is not a Trading Day or not a business day in India, the Last Trading Day will be the preceding Trading Day which is also a business day in India.
5	Trading Hours (local time)	09:15 am - 3:30 pm	09:00 am - 6:10 pm (day trading session) 07:05 pm - 05:15 am (after-hours trading session)	09:00 am - 6:30 pm (day trading session) 07:15 pm - 03:00 am (after-hours trading session)
6	Minimum Fluctuation	0.05 (2.5 INR)	0.5 (1 USD)	0.05 (1 USD)
7	Position Limits	The higher of INR 5 billion or 15% of the total open interest in the market (all futures contracts on a particular underlying index)	25,000 net contracts long or short across all Contract Months (Index futures and options combined)	37,500 net contracts long or short across all Contract Months
8	Trading Fee (per contract per side)	0.002% on notional value	US\$0.40 for Prop Trading Members; US\$1.50 for all other Clients	US\$1.00 (US\$0.30 for qualified LPs) Commission levy: US\$0.07
9	Minimum Block Size	N/A	50	25



Note: There is no afternoon or after-hours trading session on the eves of Christmas, New Year and Lunar New Year. The trading hours of the morning trading session on those three days shall be 9:15 a.m. – 12:30 p.m. There is no after-hours trading session if it is a bank holiday in both the United Kingdom and the United States.

# Comparison of MSCI India vs. simulated local index

MSCI India index provide access to higher market cap coverage with lower turnover and more liquidity (higher ATVR).

		MSCI India	MSCI India Domestic Top 50 Index
1	Number of constituents <sup>1</sup>	113	50
2	Market Cap Coverage (% of IMI) <sup>2</sup>	80%	57%
3	Average Free-Float Market Cap (USD Billion) <sup>2</sup>	915	743
4	ATVR (%) <sup>3</sup>	93.0	73.0
5	Dividend Yield (%) <sup>4</sup>	1.3	1.2



Note: Period: June 30, 2008 to December 30, 2022.

1. As of 30 December 2022 2. Month end averages of last 1 year. Market cap coverage calculation for India Domestic Top 50 index uses India Domestic IMI. 3 Weighted average ATVR that measures trading volume in a security as a proportion of market capitalization. 4. Monthly averages.

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Ishan Shah

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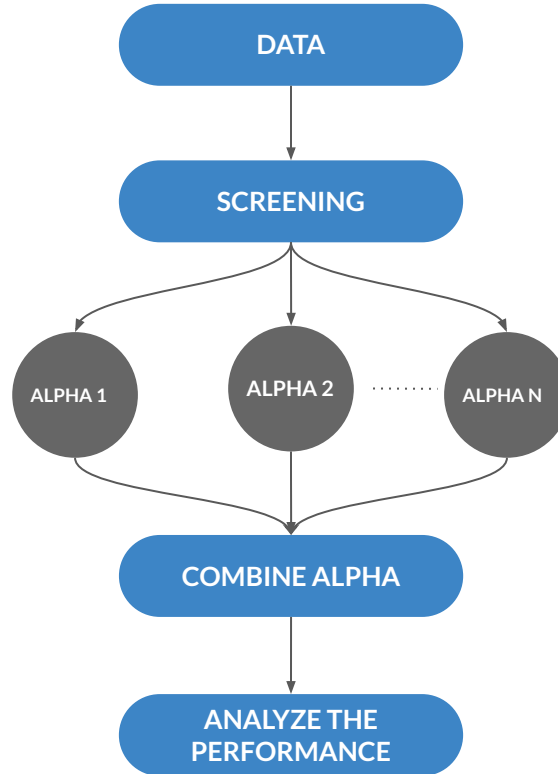
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Quant Researcher at  
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*Ishan Shah is AVP and leads the content & research team at Quantra by QuantInsti. Prior to that, he worked with Barclays in the Global Markets team & with Bank of America Merrill Lynch. He has a rich experience in financial markets spanning across various asset classes in different roles.*

- **How to come up with an idea for a trading strategy?**
- **How to validate the idea using data analysis?**
- **How to create a trading system for backtesting?**
- **How to analyze the results?**
- **How to do this for your own trading?**



## Which dataset contains the information I need to predict future returns?

### Example

**Price series:** *Open, High, Low, Close, and Volume*

Source: Quantra Blueshift, Quandl, your broker etc.

**Fundamental:** *Valuations, Income Statement, Cash Flow Statements, Earnings Calendar, Broker ratings, Analyst estimates, etc.*

Source: Morningstar etc.

**Sentiments:** *Trader mood*

Source: stocktwits and PsychSignal

**Legal, Regulatory, and Economic:** *Inflation rate, GDP, Fed meeting dates, etc.*

Source: EventVestor

- **Define the hypothesis which can predict future returns**

Sell in May and go away

January effect

If the market rises for two days then it will continue to rise

Buy and hold quality stocks

Mean-reversion

Trend following

Buy when there is a mild gap-down opening

- **Create an expression for your hypothesis**

Gap-down opening between -2% to 2% then sell

- **Combine the Alphas (as single alpha factor won't be sufficient)**

- **Analyze the performance of the strategy**

Example

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Sharpe Ratio

Returns

Volatility

Sortino Ratio

Max Drawdown



# Agenda



- How to come up with an idea for a trading strategy?
- How to validate the idea using data analysis?
- How to create a trading system for backtesting?
- How to analyze the results?
- **How to do this for your own trading?**

# How to do this in your own trading?

You could be anywhere in this spectrum

Quant	Momentum (time-series or cross-sectional)	Pair-trading, most types of statistical arbitrage	Advanced models (e.g. HMM, regime switching)	HF Market-making, Cash-futures arbitrage	News-based automated trading
Technical	MA cross-over, Continuation patterns	Swing, Retracement, Pivot trading	Opening range, dual thrusts, patterns	Range-based short gamma (vol selling)	Nothing much here
Fundamental	Factor-based investing	value investing	value/ RV (relative value) strategies	Cross-asset, cross country RV/ short gamma	Usually discretionary
	Trending	Mean-reverting	Break-out	Carry	Event-based

# How to do this in your own trading?



- Backtest
- Optimize
- Paper Trade
- Live Trade

# How can Quantra help?



- **Backtest:** learn to code in a simple and effective manner
- **Optimize:** learn techniques to update your strategy based on performance
- **Paper Trade:** learn to connect to broker terminal

## Q & A

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