JM FINANCIAL

National Stock Exchange

Capitalising on the India growth story

DEEP-DIVE

93% market share in cash equities; 100% share in derivatives

Ranked among the top 10 exchanges globally in core business segments

Ideally positioned to capitalise on the market volume surge

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- Ranked among the top 10 exchanges globally in various business segments
- Ideally positioned to capitalise on the market volume surge

Reco and Price Target – NOT RATED	
Current Reco.	NA
Previous Reco.	NA
Current Price Target (12M)	NA
Upside/(Downside)	NA
Previous Price Target	NA
Change	NA

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National Stock Exchange of India Limited

Capitalising on the India growth story

Over the last decade, the market capitalisation (Mcap) of Indian companies has risen ~11% CAGR to ~USD 3.5trln; Cash equities / futures / options segment volume has grown at 16%/ 15%/ 64% CAGR respectively. Capital market penetration will continue to rise, aided by structural tailwinds such as a) Strong GDP growth (pegged at ~6% in the next few years), b) Financialisation of savings (equity investing picking up, currently ~8% of savings), c) Discount brokers driving higher retail participation, and d) Increased market depth via regulatory push (slashing promoter holding). International peer comparisons of Mcap / GDP (India at 93% vs 183% of US) and turnover / Mcap (India at 50% vs US at 148%) imply a further upside to India's capital markets. NSE dominates India's two-player capital markets, with cash / derivative market share at 93% / 100% respectively. It is the largest derivatives exchange globally and amongst the top five in cash equities. NSE's revenue / PAT has grown at ~25% / ~27% CAGR over the last decade to INR 119bn / INR 75bn and return ratios are best-in-class (37% RoE; above 31% / 24% of global players like SGX / HKEX). In FY23, it paid a record INR 80 per share as dividend implying 53% payout ratio. Globally, exchanges remain FCF-generating companies and trade at 20-25x P/E (1-year forward; HKEX at significant premium).

- **Market capitalisation to grow faster than economy with structural enablers in place:** India is now a US 3+ tn economy. GDP grew at c.6.4% over the past decade, making India one of the world's fastest-growing large economies, and it is poised to grow by ~6% over the next 5 years. In comparison, India's market capitalisation grew at ~11% over CY12-CYTD23, much faster than GDP, facilitated by financialisation of savings, new tech enablers (fintech / discount brokers) and improved retail participation (SIP culture / demat a/cs at a record ~115mn). Retail & HNI participation is now 69% of NSE's cash market turnover as compared to 58% in FY16. The total market cap of companies in India stands at US3.5tn (as on 30th June'23), with indicators such as Mcap / GDP ratio (India at 93% vs 183% of US) and turnover to Mcap (India at 50% vs US at 148%) pointing towards a long growth runway.
- **NSE – best placed to capitalise on India growth story:** NSE commands a lion's share of India's two-player capital markets, with cash/derivative market share at 93% / 100% respectively. It is the largest derivatives exchange globally and amongst the top five in the cash equities segment. NSE's active client base registered a multifold jump over the last decade, growing at 26% CAGR over the last decade to 33mn. During the same period, revenue / PAT has grown at a robust ~25% / ~27% CAGR to INR 119bn / INR 75bn with best-in-class return ratios, at 37% RoE, above global players such as SGX and HKEX at 31% and 24% respectively. NSE's dividend payout stood at a record INR 80 per share implying a payout ratio of 53% for FY23. The exchange reported a strong balance sheet cash & cash equivalent position of INR 221bn, with record SGF funds of ~INR 50bn (Settlement Guarantee Fund – for exigencies). With co-location litigation heading towards its logical conclusion, NSE is now on a strong footing.

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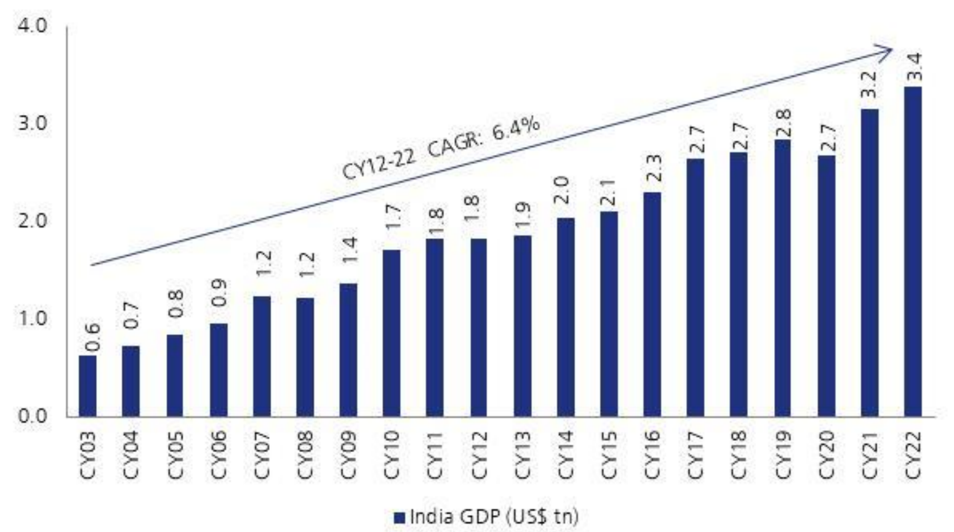
A) Indian capital market overview

a) India's rapid GDP growth to have a rub-off effect on Mcap

i) **India's economy poised to grow rapidly:** India is now a US 3+ tn economy and has witnessed c.6.4% GDP growth over the past decade, making it one of the world's fastest-growing large economies. GDP is poised to grow by ~6% over the next 5 years with IMF (International Monetary Fund) expecting 5.9% growth in FY23.

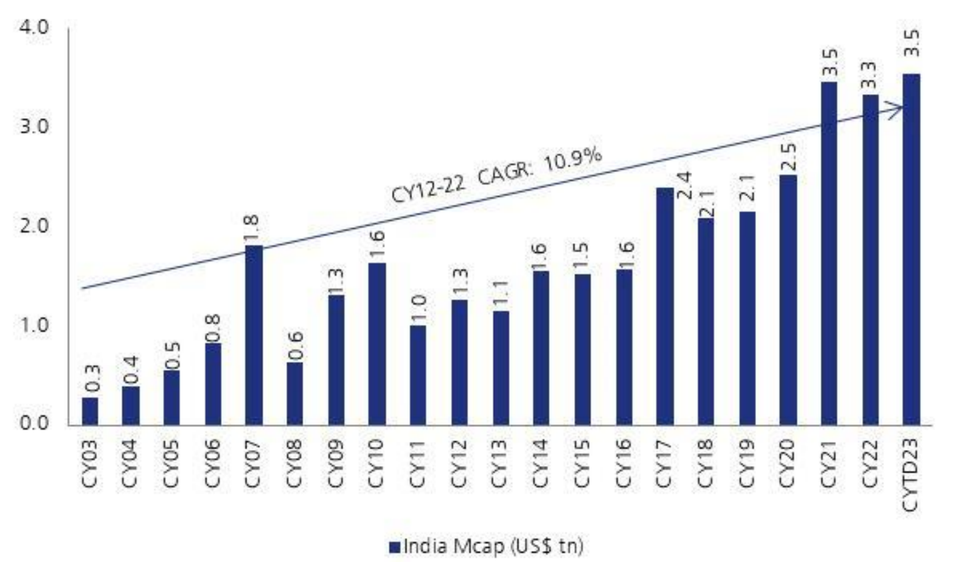
Exhibit 1. India's GDP grew at c.6.4% over CY12-22



Source: IMF, JM Financial

ii) **Market capitalisation grows faster than economy:** India's capital markets grew at c.10.9% over CY12-CYTD23, much faster than GDP, facilitated by financialisation of savings, new tech enablers (fintech / discount brokers) and improved retail participation. The total market cap of companies in India was ~US$ 3.5tn (as on 30th June'23).

Exhibit 2. India's Mcap grew faster than GDP amidst higher financialisation of savings

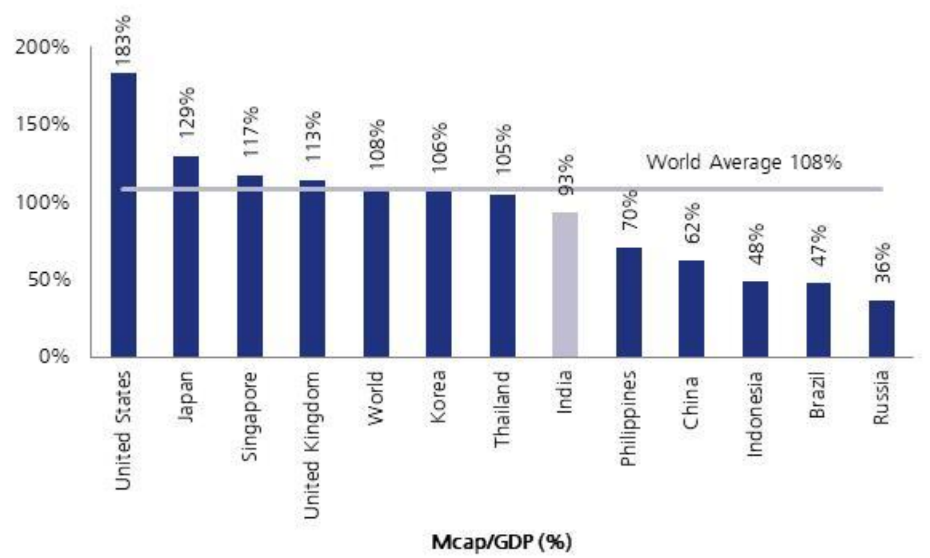


Source: Bloomberg, JM Financial; Note: CYTD23 upto 30th June'23

b) Mcap to GDP ratio for India supports an increase in Indian Mcap

i) Healthy Mcap/GDP ratio with room for upside: The market capitalisation to GDP ratio (CY18-CYTD23 average) was c.93% for India compared to 183% for the US, 129% for Japan and 108% for the World. India is currently in the mid-range compared to peers despite having one of the strongest GDP growth. A stable Mcap/GDP ratio would imply India reaching China's current Mcap of US$ 11tn by CY38 (assuming 8% GDP growth).

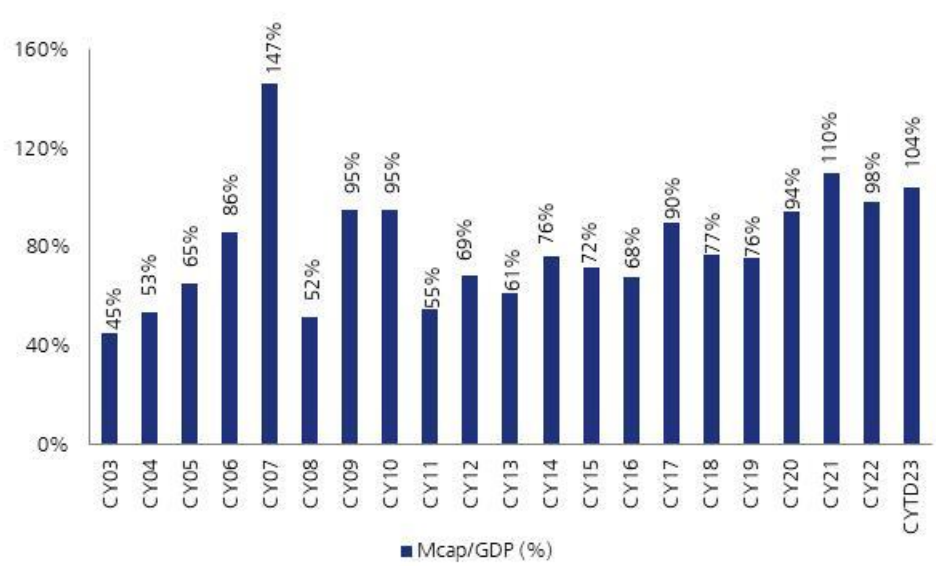
Exhibit 3. India's Mcap/GDP ratio remains in the mid range vs global peers



Source: Bloomberg, IMF, JM Financial; Average Mcap/GDP over CY18-CYTD23; Note: CYTD23 upto 30th June'23

ii) India's Mcap/GDP has risen post Covid: India's Mcap/GDP ratio has increased post Covid to 102% average (CY20-CYTD23) from an average of ~77% (CY14-19). This rise coincides with India's strong GDP growth post the pandemic. Assuming that Mcap/GDP ratio shrinks to the pre-pandemic level of ~77%, India's Mcap would still reach US$11 tn China current Mcap. by CY47.

Exhibit 4. Mcap/GDP ratio witnesses an increase post Covid

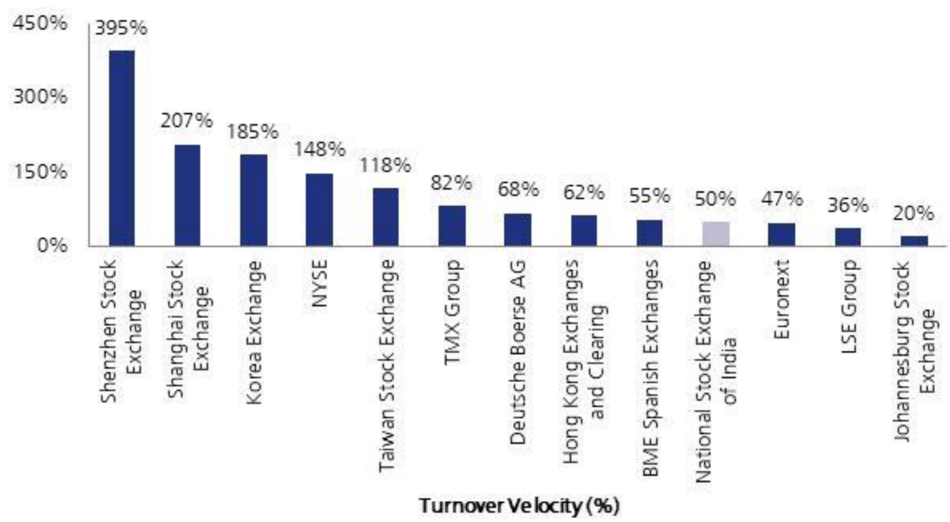


Source: IMF World Federation of Exchanges, JM Financial; Note: CYTD23 upto 30th June'23

c) NSE's low turnover velocity offers significant growth opportunity

The turnover velocity at Indian exchanges is very low at ~50% vs. other markets such as China (395%) and US (148%). Turnover velocity is the ratio between the cash market turnover of domestic shares and their market capitalisation. A marginal improvement in turnover velocity can increase share trading turnover significantly. Low turnover velocity in India can be attributed to a) higher trade concentration in large cap stocks, b) significantly high promoter holding, and c) relatively lower retail participation. Turnover velocity typically increases significantly as the market matures and NSE is ideally positioned to capitalise on the consequent volume surge.

Exhibit 5. NSE's low turnover velocity offers significant growth opportunity

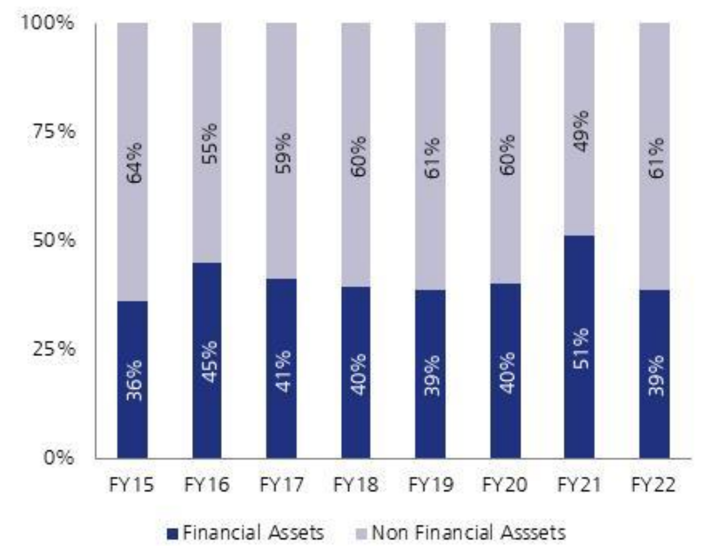


Source: World Federation of Exchanges, JM Financial

d) Increasing savings in financial assets; equity forms a small portion

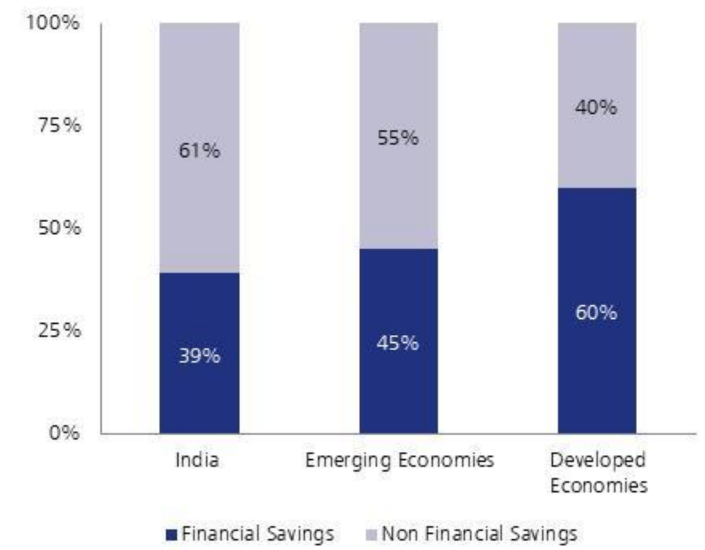
i) Significant potential for shift in savings to the capital markets: As per RBI (Reserve Bank of India), annual gross financial saving by household increased by 8.9% CAGR over FY12-22. Household saving constitutes ~65%+ of annual total gross savings in India. Indian households have invested a majority of their savings (c.60%) in physical assets such as gold and real estate; the share of financial assets in total savings is lower as compared to that in developed economies. The penetration of the capital markets in India is abysmally low (only 8.2% of financial savings in equity) with the number of bank accounts being 19x the number of demat accounts (as of FY23). This leaves room for significant growth in equity as an asset class. There exists significant potential for a shift in household savings to the capital markets, benefiting exchange turnover. Allocation of household savings to financial assets may increase, driven by a) improved financial literacy, b) financial inclusion, c) increase in per capita savings, and d) confidence in the markets.

Exhibit 6. Non-financial assets continue to dominate savings



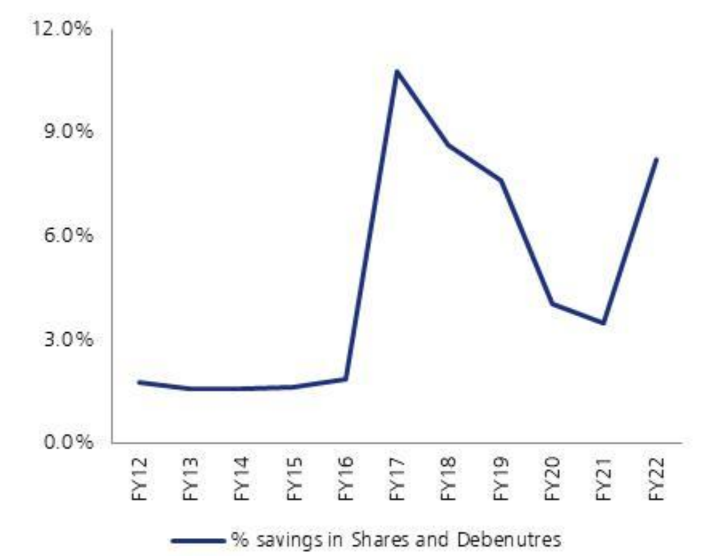
Source: RBI, JM Financial

Exhibit 7. India's financial savings remain lower than global averages



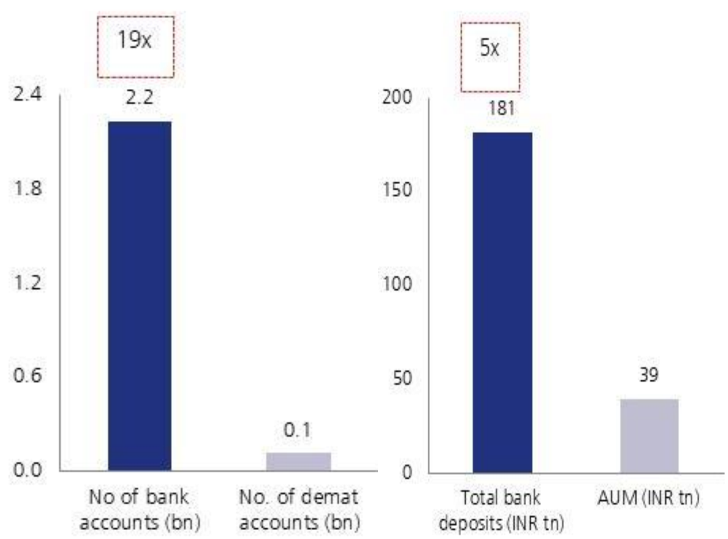
Source: Industry, JM Financial

Exhibit 8. Demonitisation and Covid aids financial savings



Source: RBI, CMIE, JM Financial

Exhibit 9. Demat accounts significantly below bank accounts

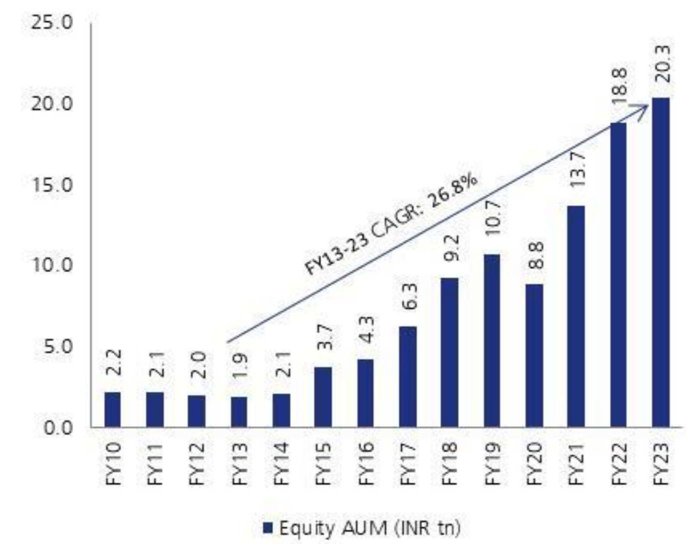


Source: RBI, AMFI, NSDL, CDSL, JM Financial; Note: FY23 data

e) Capital market participation on an uptrend

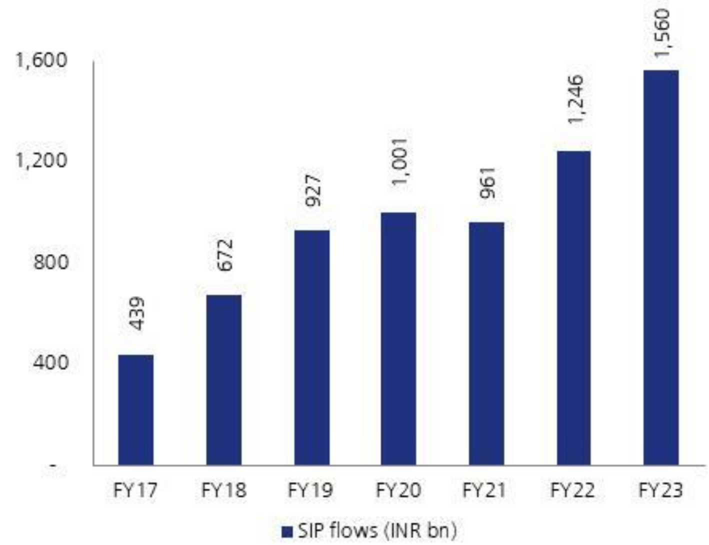
i) **Mutual funds equity AUM aided by strong inflows:** Total equity assets under management (AUM) managed by domestic mutual funds has grown at 26.8% CAGR over FY13-23 to INR 20.3tn. The pace has further increased post Covid with AUM growing at 32.2% CAGR over FY20-23. This increase has been driven by the growing popularity of systematic investment plans (SIPs) in India given the change in savings culture and increase in capital market awareness.

Exhibit 10. MFs' equity AUM growth gathered pace post covid



Source: AMFI, JM Financial

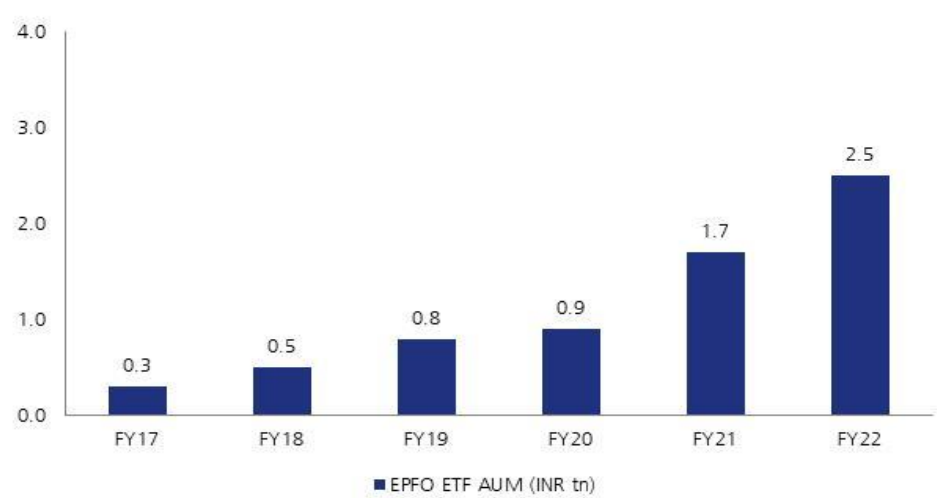
Exhibit 11. SIP flows have grown exponentially post Covid



Source: AMFI, JM Financial

ii) **EPFO's investment in ETFs aids market participation:** EPFO's investment in equity markets, starting from FY16, through the ETF route has further aided market participation. The increase in allocation to equities from 5% to 10% and later to 15% of AUM has lifted EPFO's ETF AUM to INR 2.5tn (as of FY22) – supporting the capital markets.

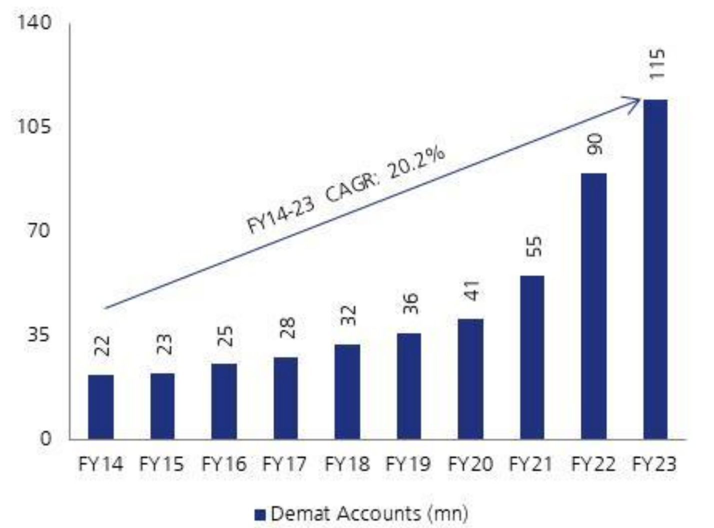
Exhibit 12. EPFO ETF AUM has grown at a rapid pace



Source: Bloomberg, JM Financial

iii) **Retail participation surges post Covid:** Retail participation in India's capital markets has grown consistently over the years, with a surge witnessed post Covid. This sharp increase was driven mainly by as a) ease of transactions (digital account opening facilitated by Aadhar, trading on the app) enabled by discount brokers, b) improved investor awareness, and c) changes in saving patterns. Discount brokers have played an important role in ensuring increased retail investor participation in India by improving the ease of undertaking transactions. The number of NSE active clients with discount brokers has grown manifold over the years. Consequently, their cumulative market share has also jumped multi-fold (~50% market share). The number of demat accounts has soared from 22mn in FY14 to 115mn in FY23. Further, the number of unique 'active' customers has grown nearly 8x from 4mn in FY14 to 33mn in FY23.

Exhibit 13. Demat accounts have surged ~3x post Covid

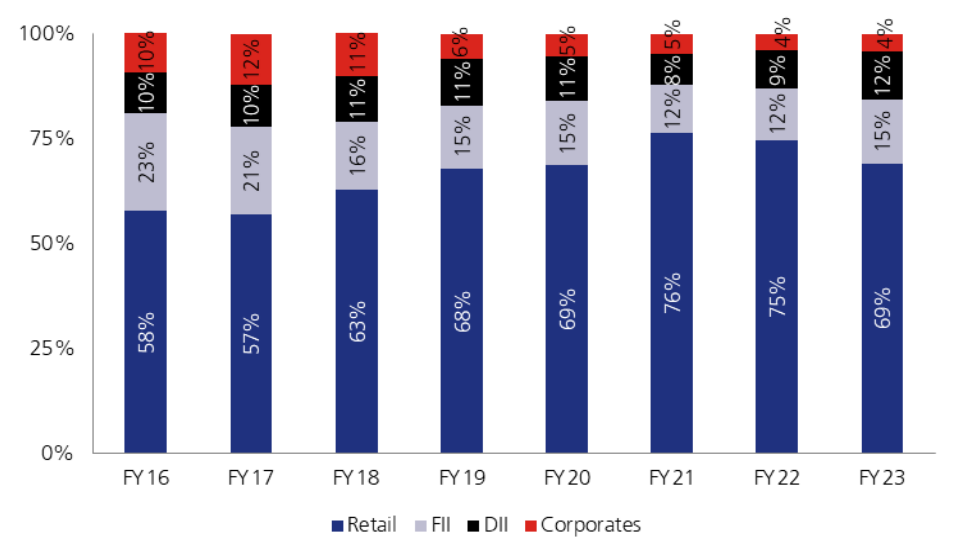


Source: Company, JM Financial

Exhibit 14. NSE active clients have grown ~8x

Source: NSE, JM Financial

Exhibit 15. Retail participation on the rise



Source: NSE Pulse, JM Financial

Exhibit 16.Broking cost across discount brokers

	Account Opening	Account maintenance	Equity delivery	Equity futures	Equity options
Zerodha	INR200	INR300 p.a.	-	0.03% (up to INR20)/order	INR20/order
Upstox	-	INR 150 p.a.	2.5% (up to INR20)/order	0.05% (up to INR20)/order	INR20/order
Groww	-	-	0.05% (up to INR20)/order	INR20/order	INR20/order
Paytm Money	-	-	2.5% (up to INR15)/order	0.02% (up to INR15)/order	INR15/order

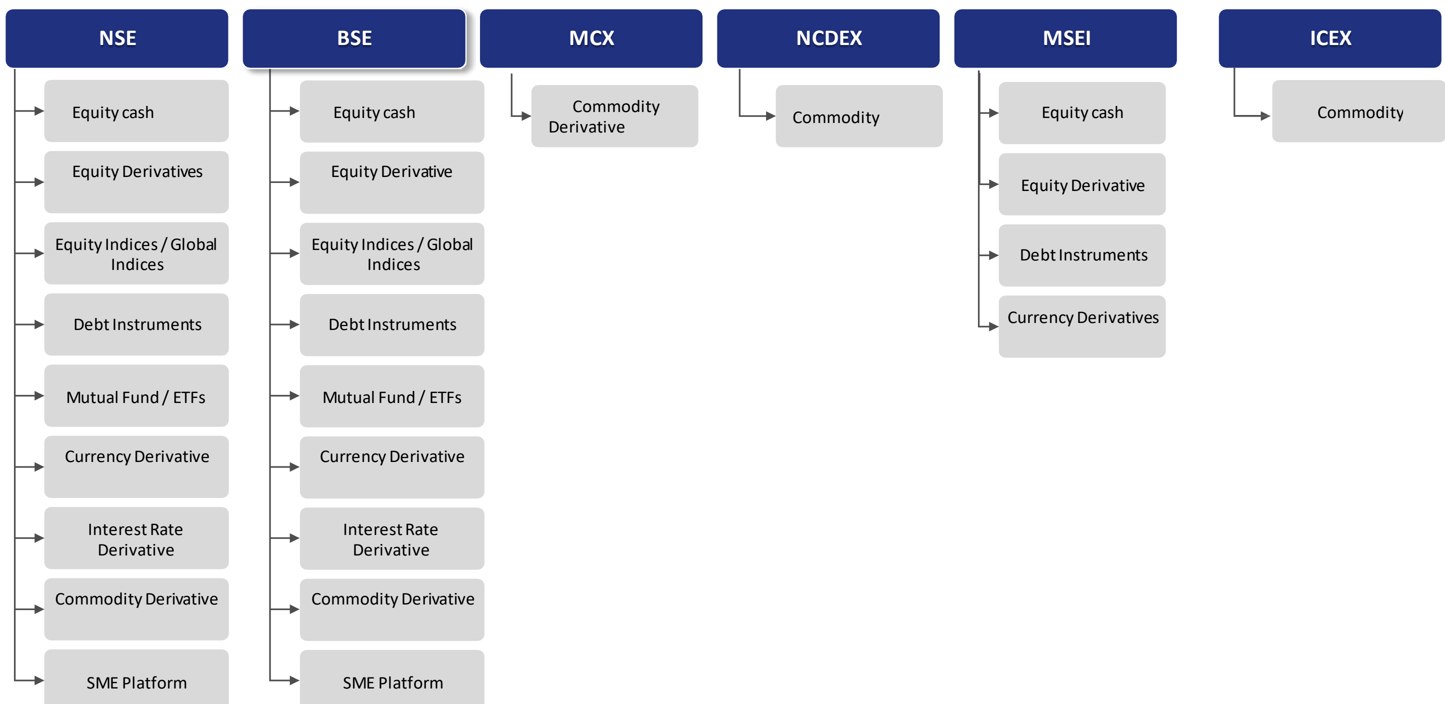
Source: NSE Pulse, JM Financial

Discount brokers enabling higher retail participation

B) NSE - undisputed market leader domestically

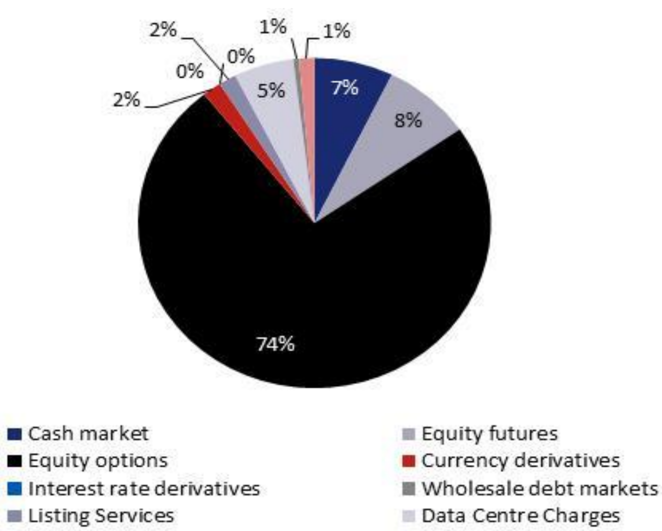
a) **NSE has the most comprehensive product offering among Indian exchanges:** India houses six stock exchanges and three commodity derivative exchanges. Indian exchanges provide services across asset classes including equity, fixed income, derivative securities and commodities. NSE and BSE offer comprehensive coverage of the Indian capital markets and have a fully-integrated business model comprising exchange listings, trading services, clearing and settlement services, indices, market data feeds, technology solutions and financial education offerings. MCX and NCDEX are dominant players in agri and non-agri commodity derivatives, respectively. NSE and BSE diversified into commodities derivatives in 2019 and established International Exchanges at GIFT City (Gujarat) in 2017. The Metropolitan Stock Exchange had a sizable share in currency derivatives, which it has lost to BSE over the years.

Exhibit 17. Exchanges landscape in India



Source: Industry, JM Financial

Exhibit 18. NSE FY23 revenue mix



Source: Company, JM Financial

b) NSE well placed vis-à-vis BSE: Despite its late entry in 1994, (a century after the BSE), the NSE garnered market share in cash equities as it a) broke the region-wise trading barrier by allowing traders to trade across regions, b) was the first to adopt technology in India making online trading with electronic settlement possible, and c) was the first demutualised electronic exchange, allowing investors to hold stock electronically. NSE's early entry into equity derivatives in FY01 vis-à-vis BSE's late entry in FY04 helped NSE garner dominant market share in the segment. Since then, high turnover in NSE's cash and derivatives segment has acted as a virtuous circle with NSE now holding 93% and 100% market share, respectively. BSE gained marginal share in equity derivatives from FY12-16 driven by its Liquidity Enhancement Incentive Programmes (LEIPS), but it immediately lost 99% volume in FY17 upon the withdrawal of LEIPS.

Exhibit 19. A timeline of NSE and BSE

NSE	
2021	Investor base crosses 50m
2019	Launched weekly option on NIFTY 50
2017	Promoted NSE IFSC at GIFT City
2014	Commencement of trading on NIFTY 50 on the Osaka Exchange
2008-10	Launch of trading in currency F&O Establishment of securities lending and borrowing
2005	Launch of NIFTY Bank Index; derivatives
2000-01	Listed index futures on Nifty 50 on SGX; Launch of index and single stock
1996	Launch of NIFTY 50 Index Dematerialised
1994	Commenced screen-based trading Launched equity and wholesale

BSE	
2022	Launched weekly option on NIFTY 50
2015	Enters MoU to develop GIFT City Exchange
2014	Commencement of trading on NIFTY 50 on the Osaka Exchange
2013	Launch of currency derivatives Approval granted for trading in debt segment
2009	Launch of NIFTY Bank Index; derivatives
2007	Incorporated as 'Bombay Stock Exchange Limited' Singapore Exchange and Deutsche Borse acquired 5% stake
2005	Launch of NIFTY 50 Index Dematerialised
1875	First established under name "Native Share and Stock Brokers' Association"

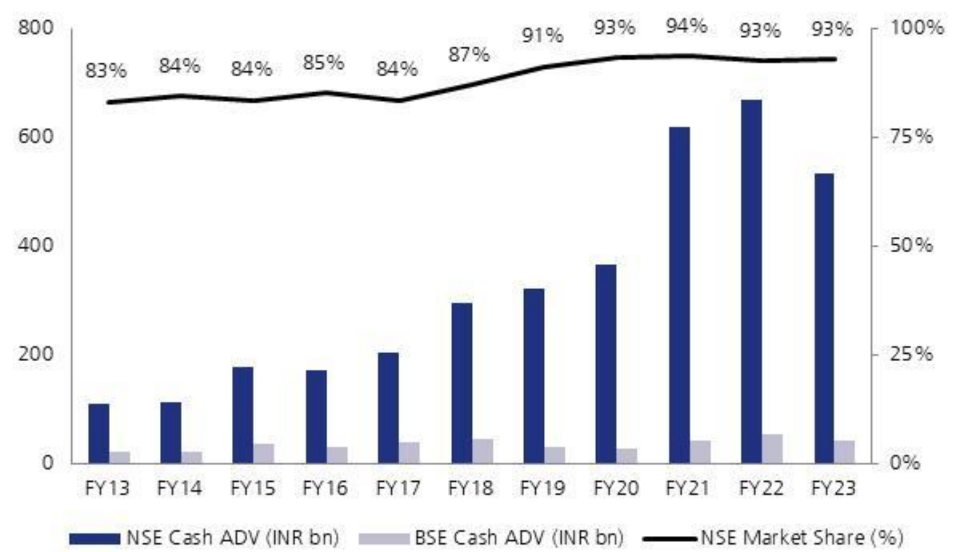
Source: Company, JM Financial

c) NSE remains a market leader across asset classes

I. Cash equities segment

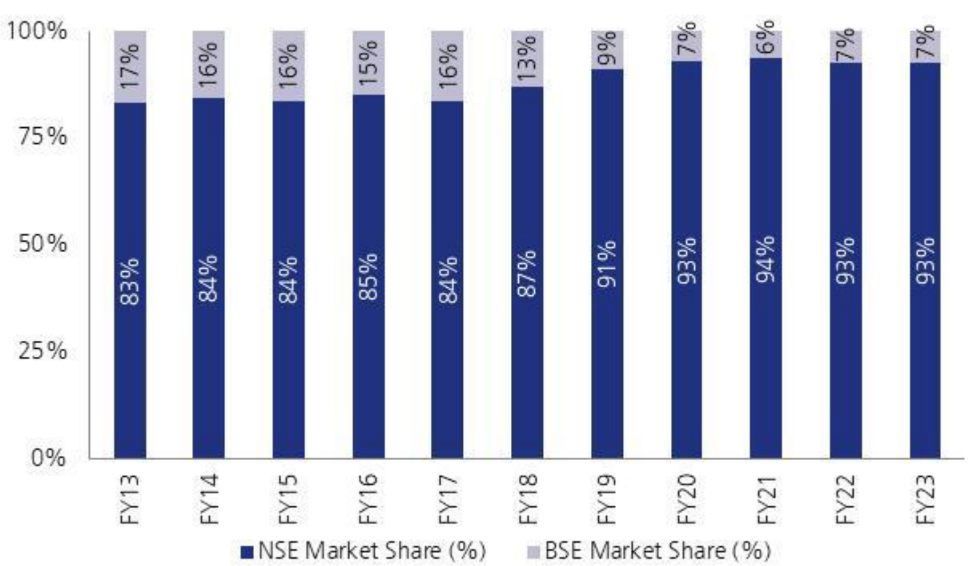
i) NSE has consistently gained market share in cash equities; ~8% revenue contribution: NSE's market share in cash equities has gone up consistently – from 83% in FY13 to 93% in FY23. Over FY13-23, cash equities' annual turnover posted 17.3% CAGR to INR 133tn. Revenue from cash equities contributed ~10% of FY23 transaction income as per our estimate. Drivers of cash equity turnover are a) higher retail participation, b) greater financial literacy, c) regulatory initiatives, d) rising free float levels, e) surge in IPOs, and f) strong investor confidence in India. Introduction of co-location facilities in 2009 led to a sharp spike in NSE's market share over the ensuing years due to increased algorithmic (algo) trading. Recent macro uncertainty on account of inflation and surge in options trading has adversely impacted ADV during FY23 for both NSE and BSE.

Exhibit 20. Cash ADV grew consistently over the last decade; NSE remains market leader



Source: NSE, BSE, JM Financial

Exhibit 21. NSE's market leadership in cash segment continues to increase

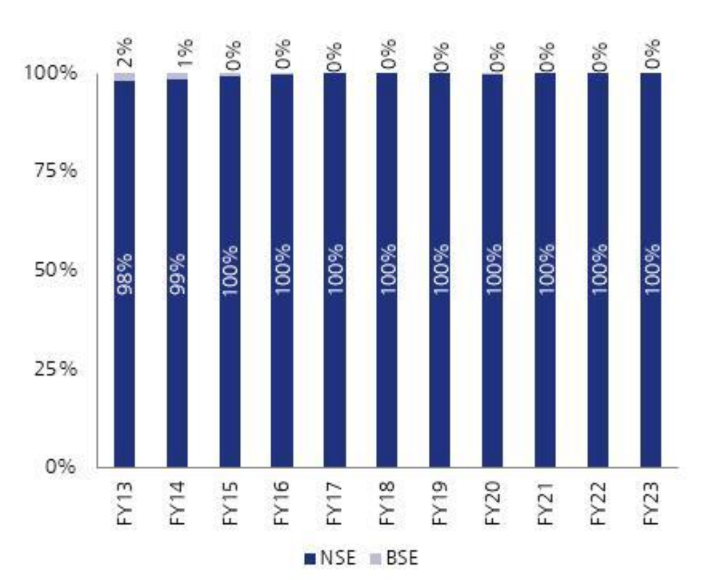


Source: SEBI, JM Financial

II) Equity derivatives

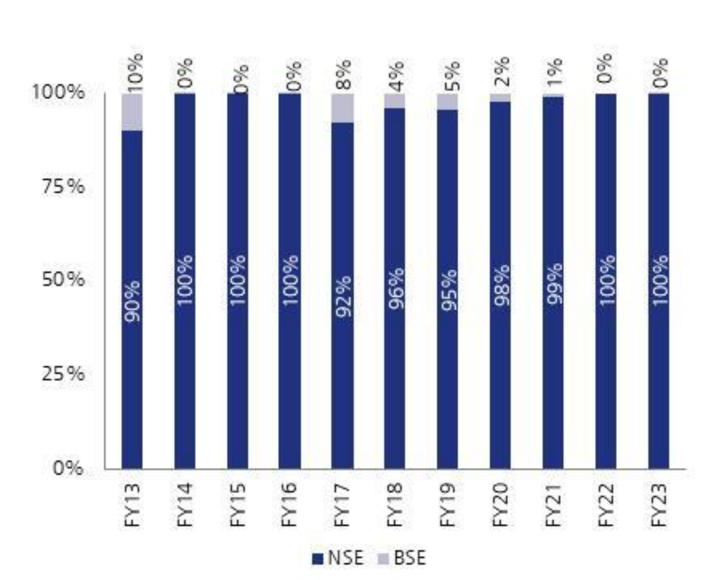
i) **Monopoly in equity derivatives:** NSE has a near-100% market share in equity derivatives. Equity option and futures accounted for ~76% and 12% of FY23 transaction income, respectively, as per our estimates. Attempts by competition to gain market share by introducing LEIPS in the past have not been successful. The competition has recently relaunched Sensex and Bankex derivative contracts in its bid to boost derivative trading. The relaunch of derivative contracts comes with a reduced lot size of futures and options and a new expiry cycle of Friday from Thursday earlier.

Exhibit 22. NSE a clear monopoly in equity futures segment



Source: NSE, BSE, JM Financial

Exhibit 23. NSE's market share in options segment stands at 100%



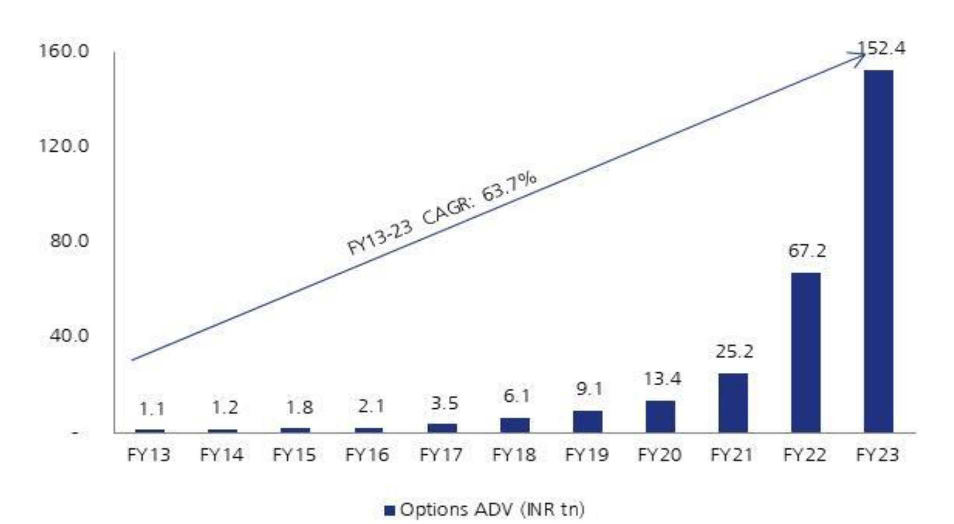
Source: NSE, BSE, JM Financial

ii) **Equity options segment in a rapid growth phase:** Options segment has been the fastest growing segment with ADTO growing at 63.7% CAGR over FY13-23. The growth in options has been primarily on account of a) change in taxation on options in 2008 (securities transaction tax was levied on the option premium rather than the notional value), b) peak margin rule, which caused a shift from futures to options, and c) new product introductions, commencement of weekly option contracts and reduction in lot size.

Peak Margin Rule

1. Margin reporting till 1st Dec'20, was calculated on 'end of day basis (EOD)'.
2. New norms involve introduction of peak margin reporting.
3. Peak margin position involves clearing corporations to take a minimum of four random snapshots in the day of all margins; the highest of these snapshots becomes the peak upfront margin of the day.
4. Since Sep'21 the maximum leverage a broker can offer is restricted to 5X.

Exhibit 24. Options ADV has grown at 63.7% CAGR over FY13-23



Source: Company, JM Financial

iii) A deep-dive on surge in options volume: Equity options ADV has surged ~25x over the last 5 years to INR 152.4tn. This surge in options was due to the following factors:

a. The shift towards options trading accelerated when SEBI in 2020 put restriction on the amount of leverage a broker can offer (Peak Margin Rule). Earlier, brokers offered leverage upto ~100x. However, SEBI reduced this leverage to 5X in 2021. Reduction in leverage caused volume to shift from intraday trading as well as futures to options.

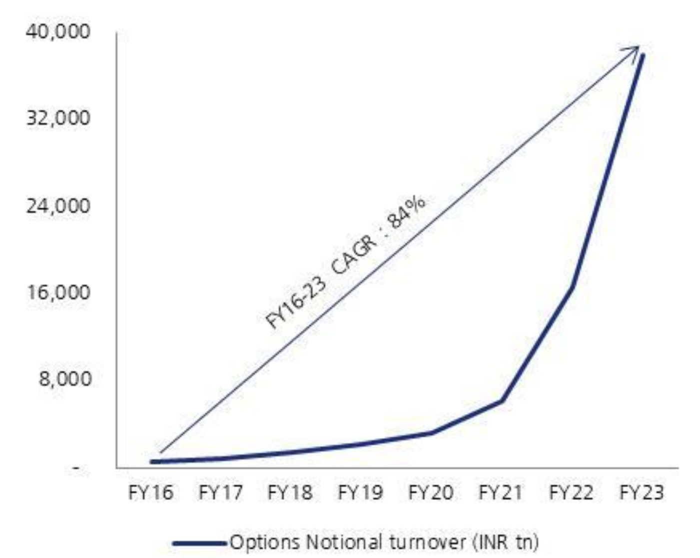
b. In options, the leverage is already baked into the product, and the broker doesn't have to give additional leverage. A lower upfront cost has aided options volume.

c. Post-pandemic rise in demat accounts and push by many influencers on the internet has also aided options volume.

Upfront cost of purchasing one lot of Nifty futures (27 July'23 expiry) stands at ~INR108k while the upfront cost of purchasing one lot of Nifty options (27 July'23 expiry) expiry stands at ~INR13k

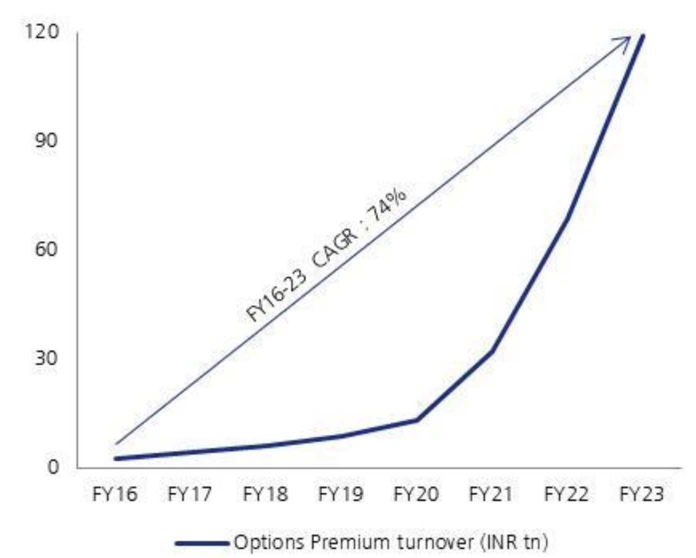
iv) Slower options premium growth to adversely impact transaction income: Option premium value has grown at a slightly lower pace than option notional value (74% CAGR over FY16-23 vs 84% CGAR over FY16-23) due to factors such as: a) commencement of weekly options, and b) lower volatility. NSE charges on premium turnover (not on notional turnover in case of options); hence, transaction income growth will be lower vs. notional turnover.

Exhibit 25. Options notional turnover



Source: Company, JM Financial

Exhibit 26. Options premium turnover



Source: Company, JM Financial

v) Futures segment impacted by peak margin rule: Futures ADTO has grown at 15.6% CAGR over FY13-23. However, growth has been muted from FY21 onwards (FY21-23 CAGR: 2.4%). This is primarily on account of the peak margin rule introduced by SEBI. Margin reporting till 1st Dec'20 happened at the end of the day (EOD) for trades (carry-forwarded) executed on that specific day of trading. The highlight of the new norms brought in by SEBI with effect from 1st Dec'20 has been the introduction of peak margin reporting rather than EOD reporting. To calculate the peak margin position intraday, clearing corporations would need to take a minimum of four random snapshots in the day of all margins; the highest of these snapshots becomes the peak upfront margin of the day. Since Sep'21, the maximum leverage a broker can offer is restricted to 5x. The reduction in leverage to be offered by brokers has impacted the futures segment, resulting in flat ADV since FY21.

Exhibit 27. Futures ADV growth adversely impacted by peak margin rules post FY21

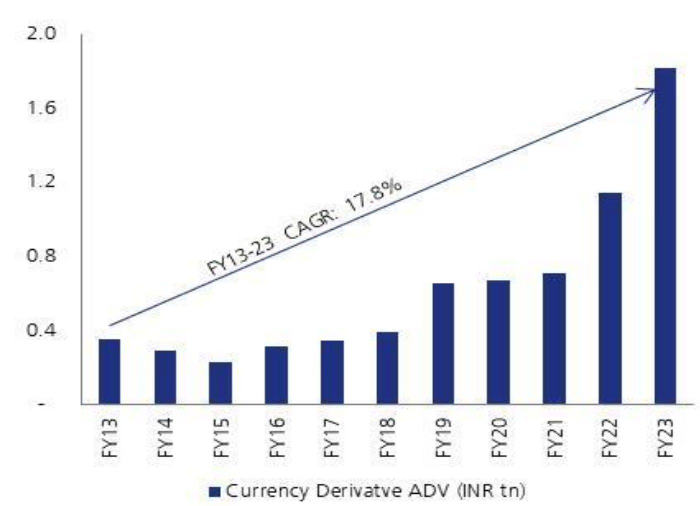
Source: NSE, BSE, JM Financial

III) Other asset classes

i) Currency derivatives

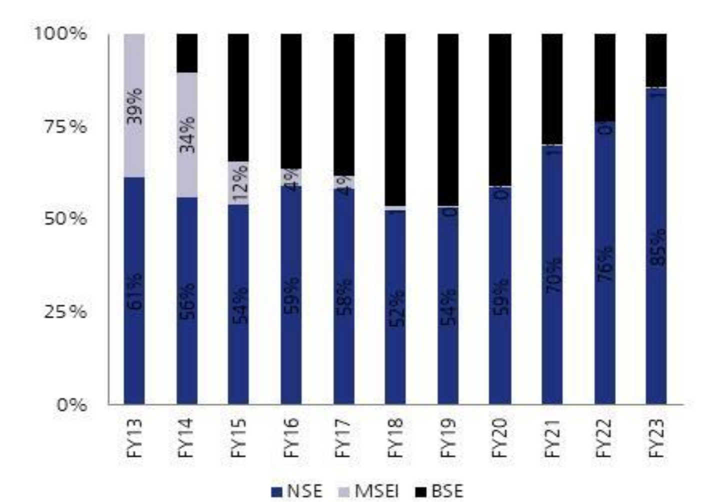
- **Significantly low fee aided BSE garner market share; currency derivatives 2% of NSE's revenue:** ADV in currency derivatives has increased 17.8% CAGR over FY13-23. BSE, despite its late entry, has gained significant market share in currency derivatives from 10% in FY14 (year of inception) to 23% in FY22 driven by significantly lower transaction fee. However, BSE lost market share in FY23 to NSE, which now enjoys a market share of 85%. Fee from currency derivatives was ~1% of FY23 consolidated revenue.
- **Regulatory intervention a key to currency derivative turnover:** In FY14, currency derivative turnover fell due to intervention by SEBI, which tightened exposure limits in FX derivatives to check largescale speculation. However, in FY19, a spurt in currency derivative turnover was witnessed due to **a)** increase in single-limit position from USD 15mn to USD 100mn by RBI, and **b)** launch of weekly derivative contracts by NSE/BSE. Recent volatility in the Indian rupee has contributed to the increase in currency ADV across FY22-23.

Exhibit 28. Currency ADTO has surged post Covid



Source: Company, JM Financial

Exhibit 29. NSE remains market leader in the currency segment



Source: Company, JM Financial

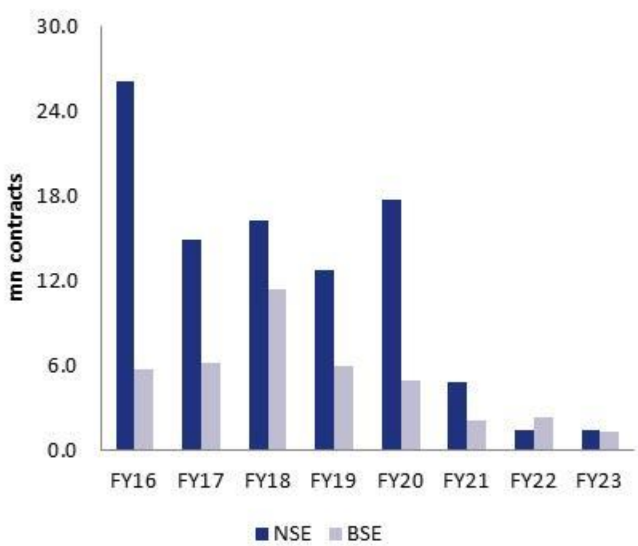
ii) Debt

- **Debt segment under-developed in India with insignificant revenue contribution:** Growth in NSE's debt segment has remained muted. The contribution to NSE's revenue from the debt segment is insignificant. The corporate bond market in India has failed to pick up pace due to a) narrow investor base, b) low liquidity, and c) private placement of bonds to save time and greater disclosures. NSE introduced the Request for Quote (RFQ) Platform for debt securities in Feb'20 considering the specialised requirement of the bond market and the success received by similar platforms globally. The platform offers high flexibility including initiating quote, sending quote to selected participants/entire market, choosing deal parameters fixed/ negotiable, quantity conditions with minimum fill parameter, etc.

iii) Interest rate derivative

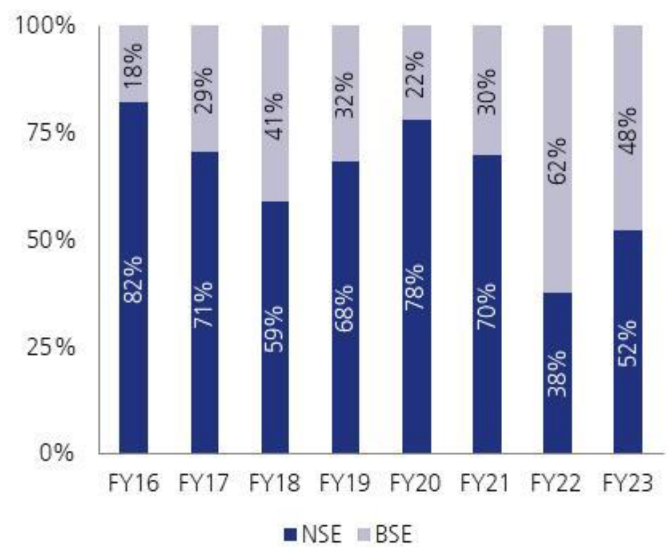
- **Interest rate derivative a declining market in India:** Interest rate derivatives segment in India has been on a downtrend. Unlike in developed economies, derivatives volume in currency, interest rate and commodity is low due to structural reasons like absence of the three interlinked markets for bonds, currencies, derivatives, collectively known as the bond-currency-derivatives (BCD) nexus. Turnover in this segment has a small base and will be driven by a) launch of more tenures in IR futures, b) development of bonds market, and c) relaxation of participation for other than hedging purpose.

Exhibit 30. Interest rate derivative market on a downtrend



Source: Company, JM Financial

Exhibit 31. BSE gaining share in a declining market



Source: Company, JM Financial

iv) Commodity segment

- **NSE to focus on differentiated products to gain share in commodity segment:** The company is focused on developing differentiated products in the commodity segment to gain share. In line with its strategy, NSE introduced Gold 1g future on 7th Jun'21. The new contract will supplement the existing contracts on gold with trading units of 1kg and 100g. This futures contract of 1g gold provides an alternative for small and marginal jewellers. The company also launched the rupee-denominated NYMEX WTI Crude Oil and Natural Gas futures contracts in its commodity derivatives segment recently. This decision will expand NSE's product offering in the energy basket as well as its overall commodity segment.

IV) Other services offered by exchanges

i) **Co-location services:** Both NSE and BSE offer co-location services. In co-location, a system popular with traders using sophisticated trading programmes, stock exchanges allow market participants to set up a server on the exchange premises. The exchange charges for leasing rack space for co-located servers and connectivity charges related to high-frequency trading through co-location facilities.

ii) **Index services:** Indices developed by NSE and BSE are used as an underlying instrument for a wide range of financial instruments offered by financial institutions, asset management companies, etc., to their investors worldwide. The exchanges generate revenue from Index services by charging a subscription fee for the index data.

iii) **Data services:** Exchanges offer an extensive range of market data and reference data products to a wide range of customers including data vendors, charting software vendors, algo traders, websites, television channels, mobile app developers, custodians, etc.

iv) **Technology services:** Exchanges provide IT solutions for third parties towards complex business problems across industries.

v) **Investor education/training:** NSE and BSE through subsidiaries (NSE Academy/BSE Institute of Research Development & Innovation) promote financial learning as a necessary life skill within schools, colleges and professional learning spaces.

vi) **GIFT City initiative:** NSE International Exchange (NSE IFSC) commenced operations in GIFT City in 2017. The company undertook a series of measures to enhance product offering, improve liquidity, and widen participation. As of Mar'23, NSE IFSC had 59 registered trading members and 41 members enabled for trading. Traded asset classes include global stocks, equity index derivatives, Indian stock derivatives, commodity derivatives, currency derivatives, etc. The aggregate turnover in FY23 was US$255.8bn.

Exhibit 32. Detailed overview of NSE Gift City initiative

Particulars	Key comments
Timings	The trading hours will start at 6:30 am IST and we will go on till 2:45 am in the morning. Effectively the trading is split over two sessions. The first session starts at 6:30 am in the morning and goes on till 3:40 pm. The second session starts from around 4:45 pm till 2:45 am.
Liquidity	The entire liquidity from SGX on the Nifty contracts will switch over to the NSE International Exchange from July 3, 2023. All the matching will start happening at NSE International Exchange. The entire open interest of close to about US$7bn on the Nifty alone will completely move over to the exchange in GIFT City at the NSE International Exchange.
Products offered	SGX Nifty is going to be renamed as GIFT Nifty. The offshore contract which international investors access is traded in US dollars. It is now going to be available on the listed exchange in the NSE International Exchange. NSE will offer four Nifty products being a) Nifty Index which will be named Gift Nifty b) Bank Nifty c) IT Nifty d) Fin Nifty. All four are envisaged to be covered under the SGX Connect arrangement with Singapore. The international exchange also offers single stock futures and options which are available in the Indian market (but not through SGX connect). NSE international exchange has also brought the top 50 New York Stock Exchange and NASDAQ stocks, on an unsponsored DR form.
Existing Positions	All of the existing positions will migrate to the exchange at the NSE International Exchange. It is called a full liquidity switch and going forward, SGX through its SPV company, SGX IFSC India Connect Limited, which is a trading member and a clearing member at the GIFT City on our exchange in the NSE International Exchange will start routing all the orders from the international clients into our exchange
No of Brokers	There are ~62 brokers, who are fully ready to operate on the exchange. Additionally, Singapore Exchange has its own members and all of them will be eligible to route their orders through their STB company into NSE International Exchange. This shall lead to broadening of liquidity. The defragmented liquidity will now come at one single liquidity pool. The total open interest on Nifty is ~ US$1.5-2 bn. vs US$7 bn in case of international contracts.
Charges and Capital gain tax	Non residents will not be charged capital gains, stamp duty and STT in this jurisdiction (GIFT City). Tax wise, it becomes much more advantageous for non-resident players. Further, all the entities from India, which set up a subsidiary in the Gift city are treated as non-residents and enjoy the above mentioned benefits
Revenue opportunity	Although the agreement is not in the public domain. NSE – SGX agreement is for five years with a lion's share of revenue going to SGX.

Source: Company, JM Financial

C) An overview of NSE's business model

a) **Transaction income the dominant revenue driver:** For NSE, transaction income accounts for a large share of total revenue (including clearing revenue); ~79% on average over FY21-23. The share is lower in case of BSE on account of lower volume. Transaction income consists of fee paid by a broker basis the product and size of the trade. Both NSE and BSE maintain a fee structure across different product segments based on traded value. NSE offers a competitive fee structure in case of the cash segment. However, in derivatives, NSE's transaction charges are significantly higher than that of BSE, given its market dominance.

Exhibit 33. Comparison of transaction fees

Segment	Transaction Charges (INR/mn of traded value)	
	NSE	BSE
Equity Cash	30.0 - 32.5	37.5
Equity Futures	17.5 – 19.0	5.0
Equity Options	INR25k upto first INR30mn of premium value and INR30.0-50.0 thereafter	250

Source: Company, JM Financial; Note: for detailed breakup of transaction fees (refer exhi. 53)

Exchanges ensure a stable fee structure: Exchanges ensure a stable fee structure across product segments. However, NSE recently revised its charges by rolling back the 6% increase in transaction charges on equity cash and derivatives segment it took during Dec'20. The previous increase in charges was primarily due to its requirement to build a corpus of INR 15bn for the 'Investor Protection Fund.' On the other hand, BSE revised its charges upwards in Dec'22.

Exhibit 34. NSE - change in fees

Segment	Transaction Charges (INR/mn of traded value)	
	Old Fees (Pre Apr'23)	New Fees (Post Apr'23)
Equity Cash	32.0 - 34.5	30.0 - 32.5
Equity Futures	18.5 – 20.0	17.5 – 19.0
Equity Options	INR25k upto first INR30mn of premium value and INR33.0-53.0 thereafter	INR25k upto first INR30mn of premium value and INR30.0-50.0 thereafter

Source: NSE, JM Financial

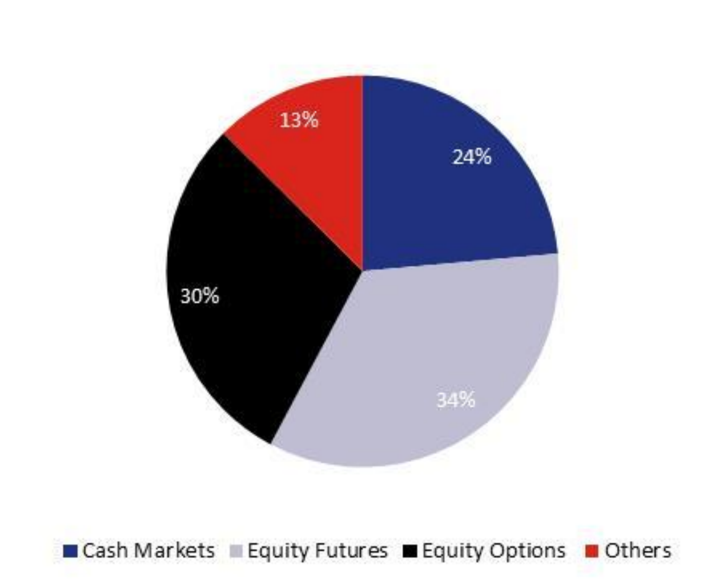
Exhibit 35. BSE - change in fees

Segment	Transaction Charges (INR/mn of traded value)	
	Old Fees (Pre Dec'22)	New Fees (Post Dec'22)
Equity Cash (Group A,B and common scrips)	32.0 - 34.5	37.5

Source: BSE, JM Financial

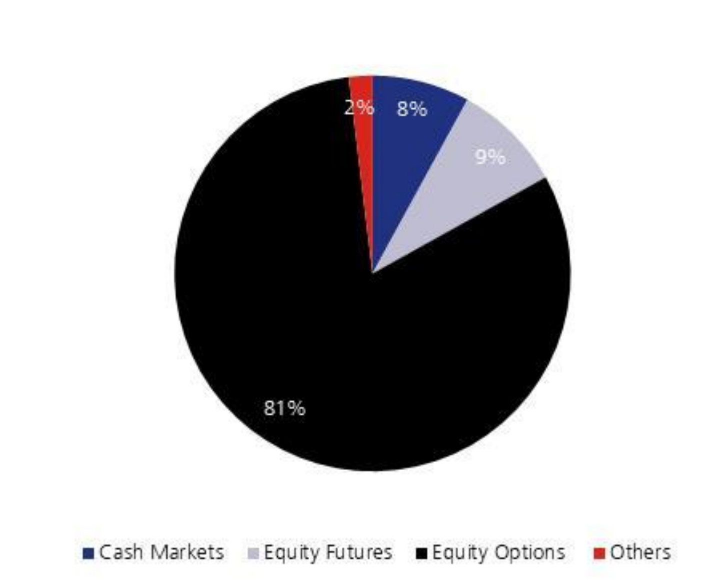
b) **Equity options dominate transaction income:** The recent surge in options trading post Covid and implementation of peak margin rule has resulted in options share increasing across transactional income. We believe options accounted for ~81% of NSE's FY23 transaction income vs ~30% of transaction income in FY13.

Exhibit 36. Options - 30% of transaction income in FY13



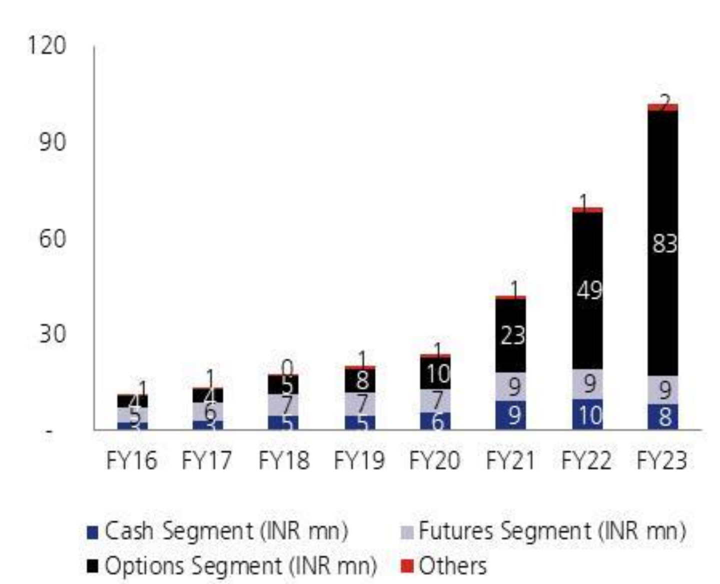
Source: Company, JM Financial

Exhibit 37. Options accounted for 76% of transaction income in FY23



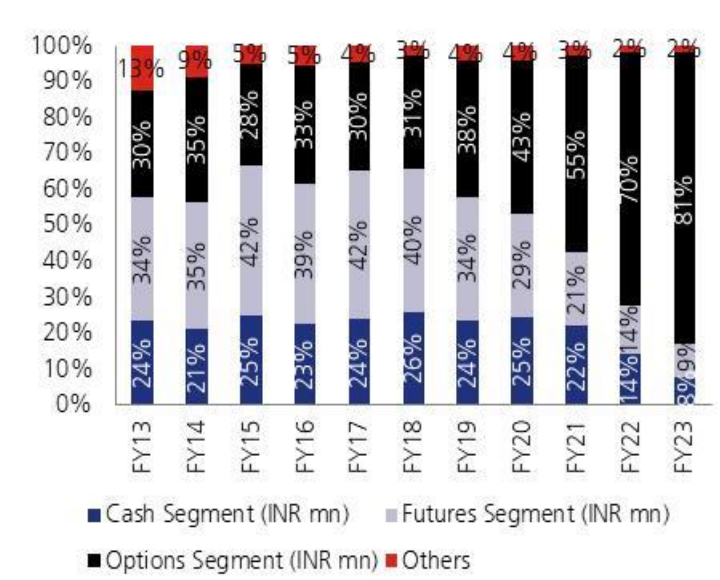
Source: Company, JM Financial

Exhibit 38. Transaction charge mix over the years



Source: Company, JM Financial

Exhibit 39. Contribution from options segment on the rise



Source: Company, JM Financial

c) Listing and licensing services – annuity in nature

Listing and index licensing services are annuity in nature for NSE. Both these revenue streams have remained stable over the years, growing at ~12% CAGR over FY13-23. The listing services offered by exchanges allows companies to list their securities on the exchange by paying a one-time initial listing fees (INR 50k for NSE, INR 20k for BSE) at the time of listing and annual listing fees thereafter based on listed capital. Licensing services offered by exchanges (NSE & BSE) include charging a fee for licensing Nifty/Sensex indices to financial institutions, asset managers, brokers, investors and other enterprises.

d) Tech services

NSE operates in this segment through its wholly owned step-down subsidiary, NSEIT. NSE innovates and co-creates solutions to complex business problems across industries. The company continues to create tangible business impact with cutting-edge technology solutions and deep domain understanding.

e) Co-location services

NSE offers co-location services whereby it allows market participants to set up a server on exchange premises. NSE charges for leasing rack space for co-located servers and connectivity charges related to high-frequency trading through co-location facilities. The initial setup cost of a full rack is INR 100k and the annual rental is INR 1.2mn.

f) Various data points for easy access to the end-user

NSE offers data across products like equity markets, currencies, FnO, etc. It offers data regarding price, volume, and market depth. Some of its services include a) providing the best bid and ask quotes, b) market depth upto 5 quotes to 20 quotes, c) additional services of offering tick-by-tick data for full order book, and d) real-time or lagged data. The exchange charges a fee based on the type of services taken by the end-user.

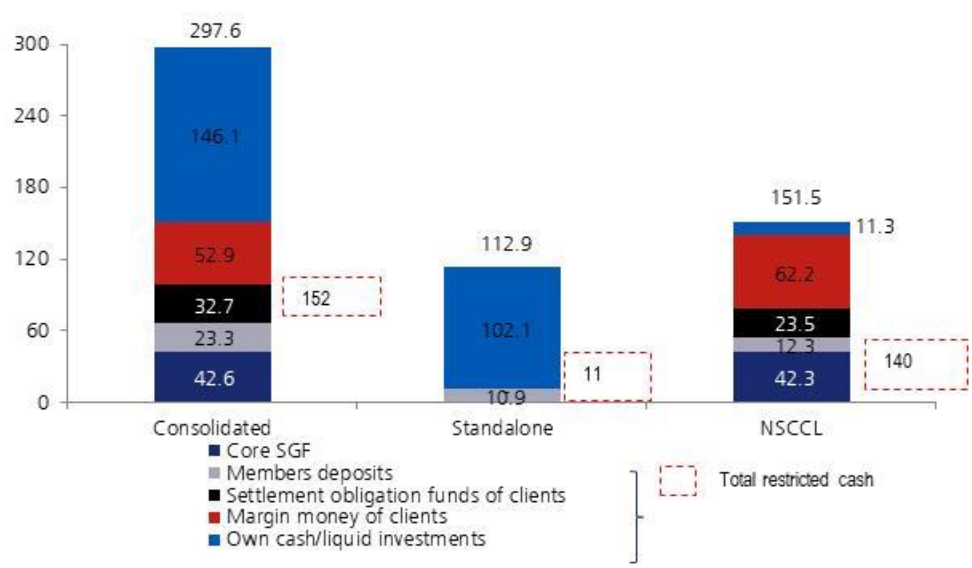
g) Other sources of revenue

Other sources of revenue include clearing and settlement services, income on investments, interest income, and fee charged for certifications/programmes. NSE, given its dominant position, stands to benefit from the 2020 framework introduced by SEBI. SEBI has allowed market participants to consolidate their clearing and settlement services at a single clearing house, irrespective of the exchange at which the trade is executed.

h) Types of funds maintained by NSE

NSE's net cash includes funds towards margin money/settlement obligation, members' deposits and Core SGF, which are restricted in nature. Margin money is the minimum amount of funds that investors are required to deposit with the NSE in order to initiate trading activities. Member deposits with NSE refer to the funds that trading members are required to deposit as a form of security or collateral with the exchange. These deposits serve as a financial guarantee and help ensure the financial stability and integrity of the trading system. Core Settlement Guarantee Fund (SGF) is maintained by NSE to guarantee settlement obligations and mitigate counterparty risk. It is used to cover any default in the settlement process. NSE's SGF currently stands at ~INR 50bn; it intends to increase that to INR 100bn over the coming years.

Exhibit 40. Client/regulatory funds account for significant portion of NSE's FY22 cash balance

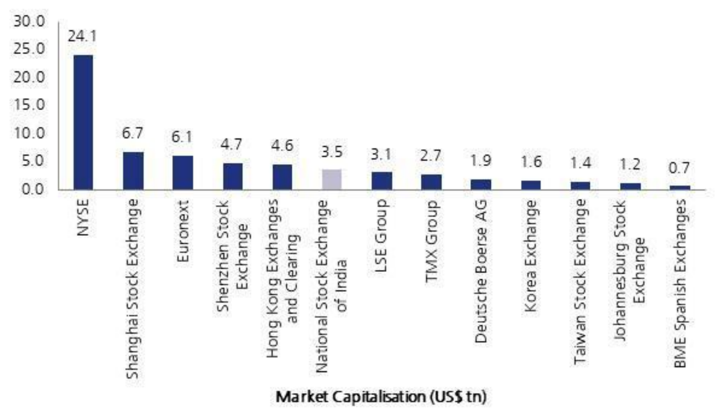


Source: Company, JM Financial

D) Competitive globally

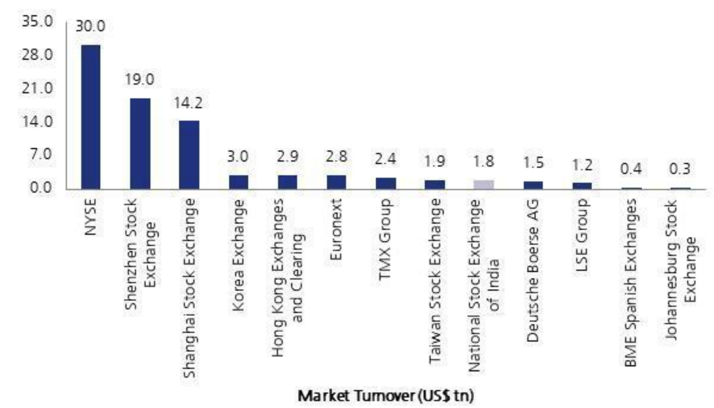
a) NSE ranks amongst top 10 exchanges across various business segments globally: Globally, NSE is the largest derivative exchange in terms of contracts traded. Even in other segments such as number of trades in cash equities and number of contracts traded in equity derivatives, NSE ranks among the top 10 globally. NYSE is the largest exchange in terms of market capitalisation of companies listed on it (USD 24trn as of Dec'22) while the Mcap of NSE-listed companies is low at USD 3.4trn, implying lower number of corporates listed. Consequently, the cash equities turnover of NSE is also relatively lower vis-à-vis NYSE, which has the highest turnover globally.

Exhibit 41. NYSE tops market capitalisation amongst global exchanges



Source: World federation of exchanges, JM Financial; Note: CY22 data

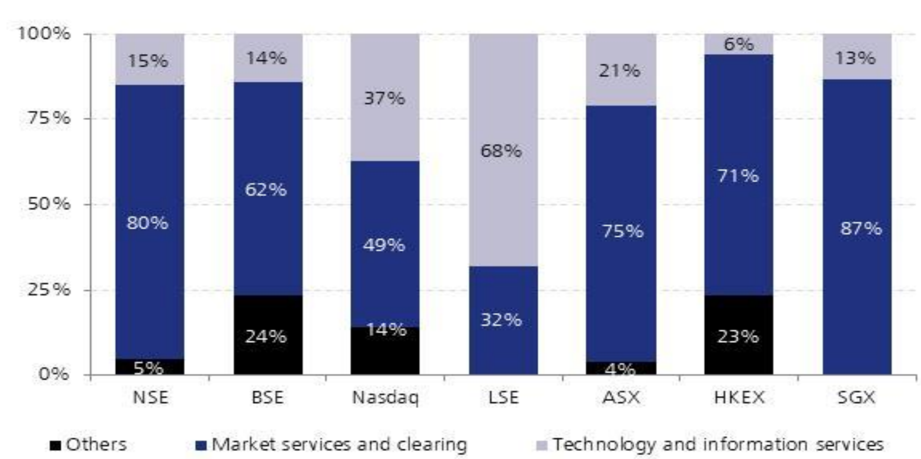
Exhibit 42. NSE's market turnover significantly below global peers



Source: World federation of exchanges, JM Financial; Note: CY22 data

b) High concentration on transaction charges indicates potential to diversify revenue: Revenue contribution from transaction services for NSE is the highest globally at 78%. Another source of revenue is the interest income from bank deposits (c.3% of revenue). The management of bank deposits forms an integral and important part due to availability of huge cash from initial deposit of members, margin money received from members, settlement obligation funds and positive cash flows from operations. However, global comparison underlines the importance of technology and information services with exchanges such as Nasdaq and LSE drawing around c.40–65% of revenue from technological and information services vis-à-vis c.15% at the NSE. High concentration on transaction charges for Indian exchanges vs. a diversified revenue mix for exchanges in Europe and US indicates strong potential for revenue growth in other areas such as data services, index products and technology offerings.

Exhibit 43. Technology and information services remain low contributor to NSE's reveue

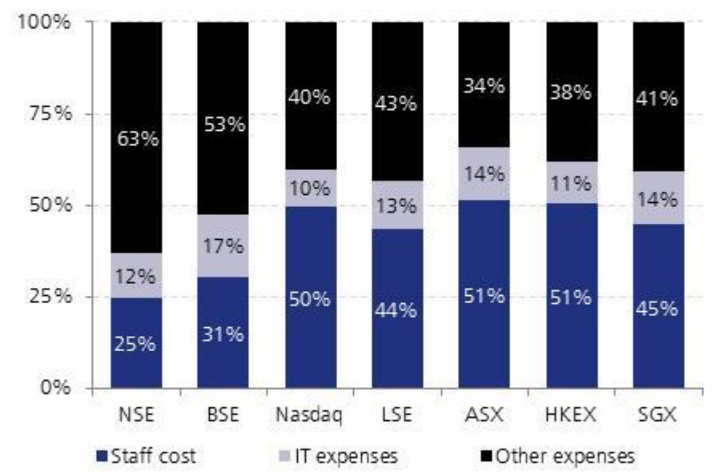


Source: Company, JM Financial; Note data for NSE and BSE is for FY22

c) **Potential for increasing international presence:** Organic growth has remained at similar levels for exchanges across geographies. The outperformance in revenue growth by the exchanges has been primarily driven by M&A activities. Leading exchanges such as LSE, CME, and NYSE have presence in more than one continent. Geographical diversification aids in revenue expansion and risk reduction. International expansion can be achieved through M&As, JVs and consolidation with neighbouring markets. Indian exchanges have significant potential to follow patterns of peers internationally, forming further exchange links or JVs, or other means to tap into regional / international revenue pools.

d) **Low operating costs aid margin expansion:** NSE's EBITDA margin is one of the highest amongst global peers driven by lower operating cost. In terms of cost break-up, employee cost is the lowest for Indian exchanges. On an operating cost per trade basis as well, Indian exchanges are amongst the most efficient exchanges globally. NSE's RoE is also higher vs. peers at ~33% and 31%/24% for SGX and HKEX.

Exhibit 44. Staff cost as % of total cost lowest for Indian exchanges

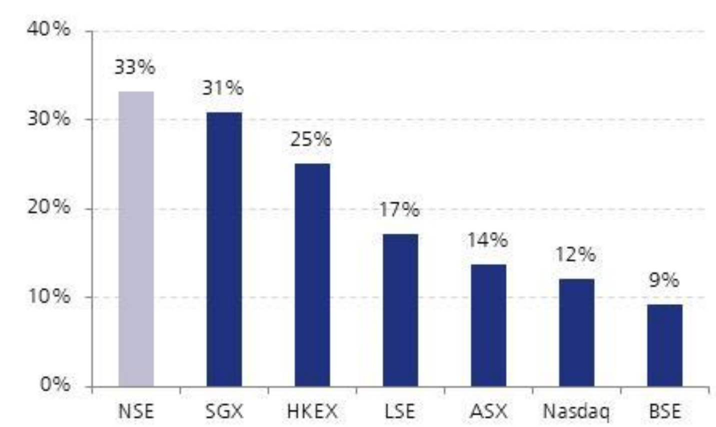


Source: Company, JM Financial; Data for FY23/CY22; Note NSE data for FY22

Exhibit 45. NSE's margin is higher than global exchanges

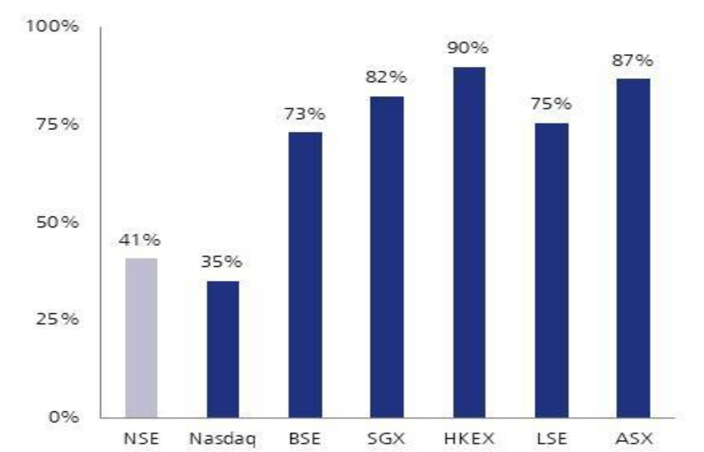
Source: Company, JM Financial; Data for FY23/CY22; Note NSE data for FY22

Exhibit 46. NSE boasts the highest RoE vs global exchanges



Source: Industry, JM Financial; Data for FY23/CY22; Note NSE data for FY22

Exhibit 47. NSE's dividend payout remains below global peers



Source: Industry, JM Financial; Data for FY23/CY22; Note NSE data for FY22

e) Exchange comparative

Exhibit 48. Exchange comparative valuation

Companies	Mcap.	PE (x)		P/B		ROE	
	USD bn	FY24E	FY25E	FY24E	FY25E	FY24E	FY25E
Indian exchanges		36.3	29.1	5.4	5.0		
BSE Ltd	35.6	35	32	3.3	3.2	11.9	9.9
Multi Commodity Exch India	32.1	38	26	4.8	4.4	13.1	17.9
CDSL	1.4	37	30	8.2	7.3	25.8	27.6
Foreign exchanges		21.7	20.2	3.4	3.3		
CME Group Inc	21.4	21	20	2.4	2.3	11.6	12.0
Intercontinental Exchange	21.0	19	18	2.5	2.4	14.3	15.7
Hong Kong Exchanges & Clear	8.5	27	25	6.9	6.6	27.4	31.1
Deutsche Boerse AG	18.3	17	17	3.1	3.0	17.5	15.0
London Stock Exchange Group	40.1	22	19	1.6	1.6	8.2	8.3
Japan Exchange Group Inc	13.4	25	24	NA	NA	NA	NA
ASX LTD	8.6	24	23	3.3	3.2	13.5	15.1
Singapore Exchange Ltd	15.1	20	19	5.7	5.3	30.6	30.0
TMX Group Ltd	18.6	21	17	1.9	1.8	10.9	12.1
Asset Management Companies		27.7	24.8	5.9	5.6		
HDFC AMC	29.7	32	29	6.9	6.5	23.9	24.8
Reliance Nippon Life AMC	29.8	23	21	4.9	4.7	22.0	23.8

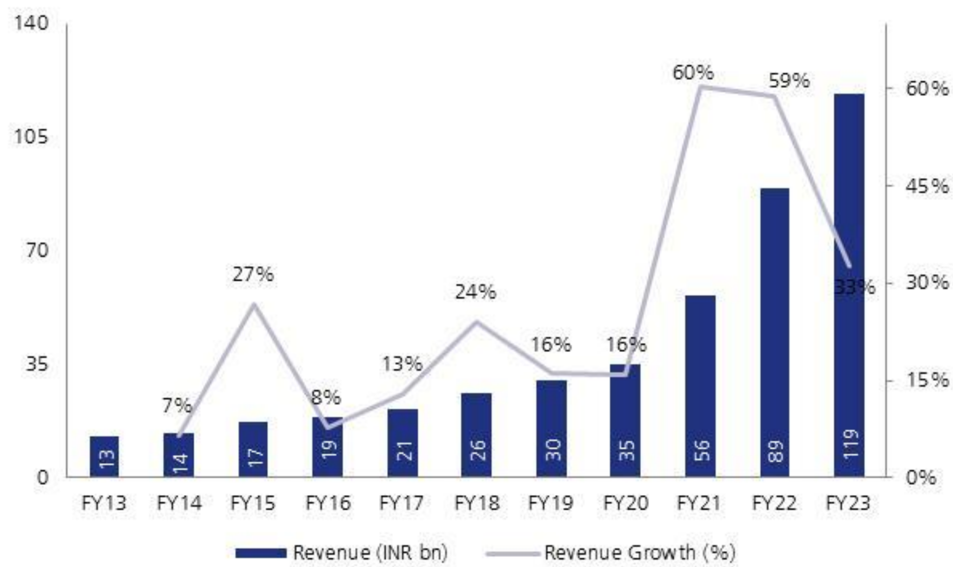
Source: Bloomberg, JM Financial; Note: 1.Valuation as on 03/07/2023, 2.Major exchanges such as Nasdaq, Korea Stock Exchange, Bursa Malaysia are not listed

E) Robust financials vs peers

a) NSE has delivered resilient revenue growth in the past decade

- NSE's revenue growth remains resilient despite the cyclical nature of the capital markets. Revenue has grown YoY over the last 10 years (~25% 10-year CAGR). Yearly revenue growth remains volatile given the cyclical nature of the capital markets.

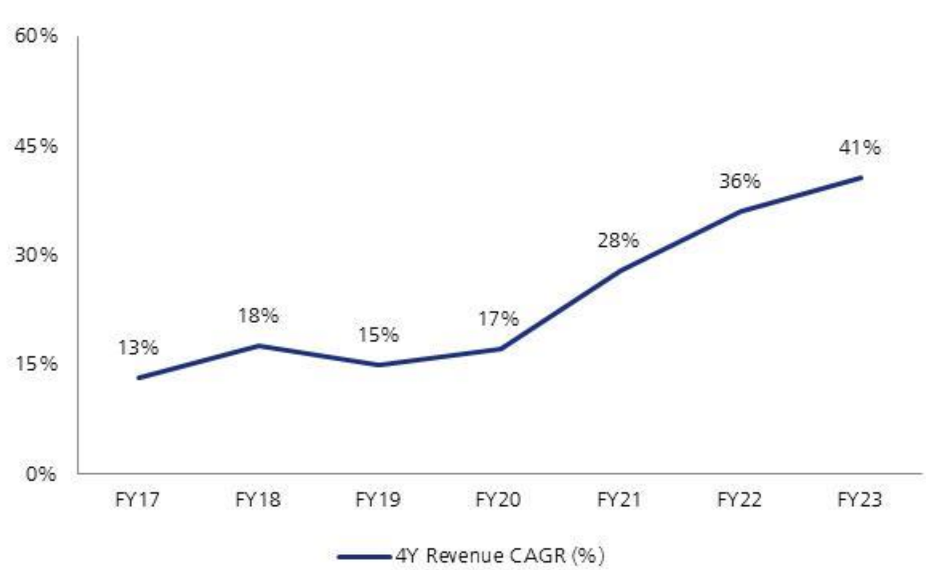
Exhibit 49. NSE's revenue growth has remained resilient despite cyclicality in the business



Source: Company, JM Financial

- On a longer term, when we look at 4-year revenue CAGR for NSE over the past 7 years, growth has remained above 10% in each year. Over FY17-FY20, growth ranged between 13% and 18% while growth in the past 3 years was 28%/36%/41%. This signifies that although revenue growth has remained volatile on a yearly basis, it grows in double-digit CAGR in the long term.

Exhibit 50. On a 4Y rolling CAGR basis NSE's revenue has grown in double digits

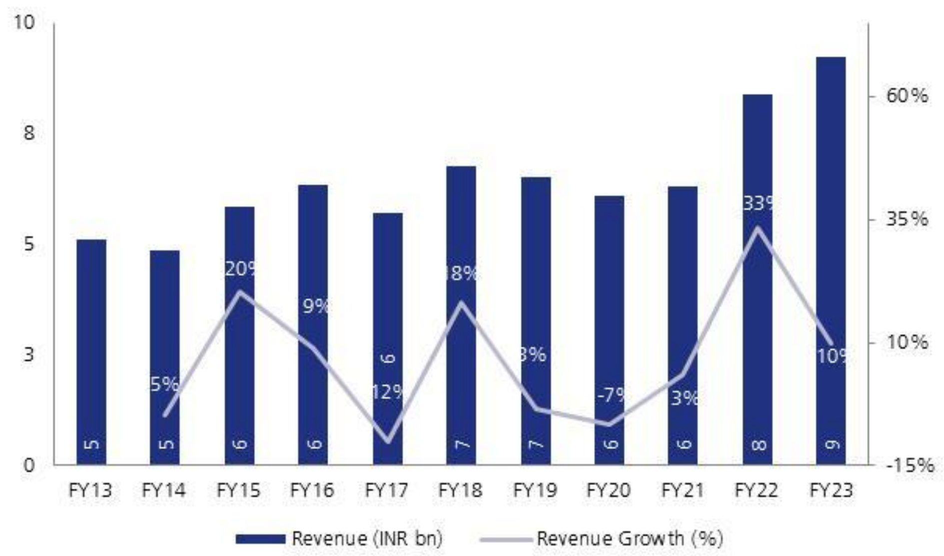


Source: Company, JM Financial

b) BSE's revenue remained impacted due to the cyclical nature of India's capital markets

Revenue growth for BSE has been volatile over the years with revenue down YoY in 3 of the last 10 years. Unlike NSE, whose revenue has grown each year over FY13-23, BSE's revenue has been impacted by cyclicality in the capital markets.

Exhibit 51. BSE's revenue growth has remained volatile over the years

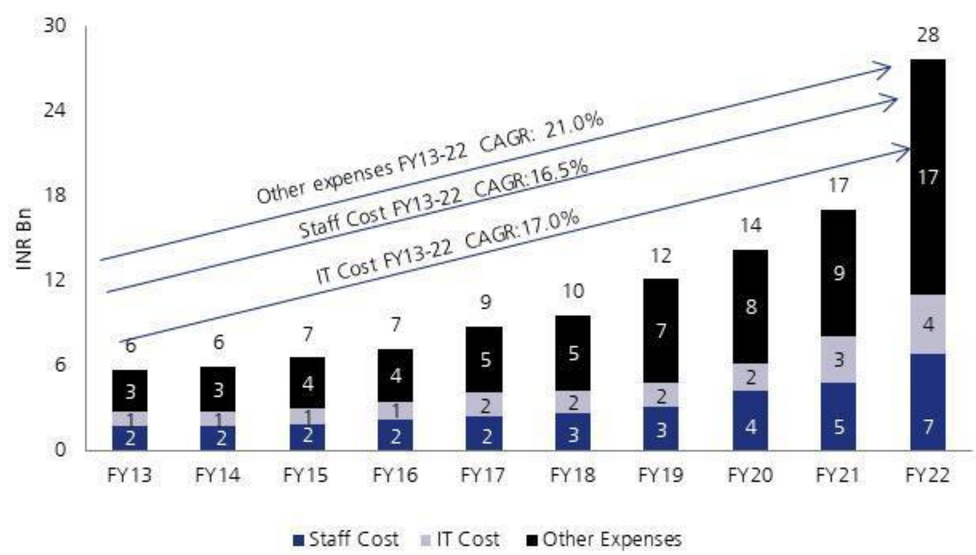


Source: Company, JM Financial

c) NSE's fixed-cost model offers significant operating leverage opportunity

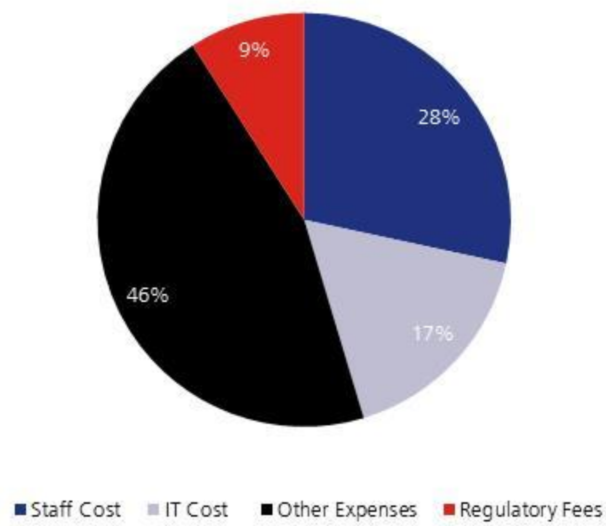
NSE operates in a fixed cost environment wherein staff cost and IT cost constitute c.40% of total cost. Staff cost constitutes c.25% of total cost and increased 43.7% YoY in FY22 as the number of employees increased from 1,002 to 1,197. IT cost forms c.15% of total cost and increased at 19.6% CAGR over FY17-22. SEBI regulatory fees, water/electricity charges, rent, legal fees, and CSR form a major part of other expenses. SEBI regulatory fees more than doubled YoY to INR 2.2bn in FY22 vs INR 922mn in FY21. Total expense has grown at 19.1% CAGR over FY13-22.

Exhibit 52. Staff cost and IT cost form majority of total expenses



Source: Company, JM Financial

Exhibit 53. NSE staff cost and IT cost form majority of total expenses

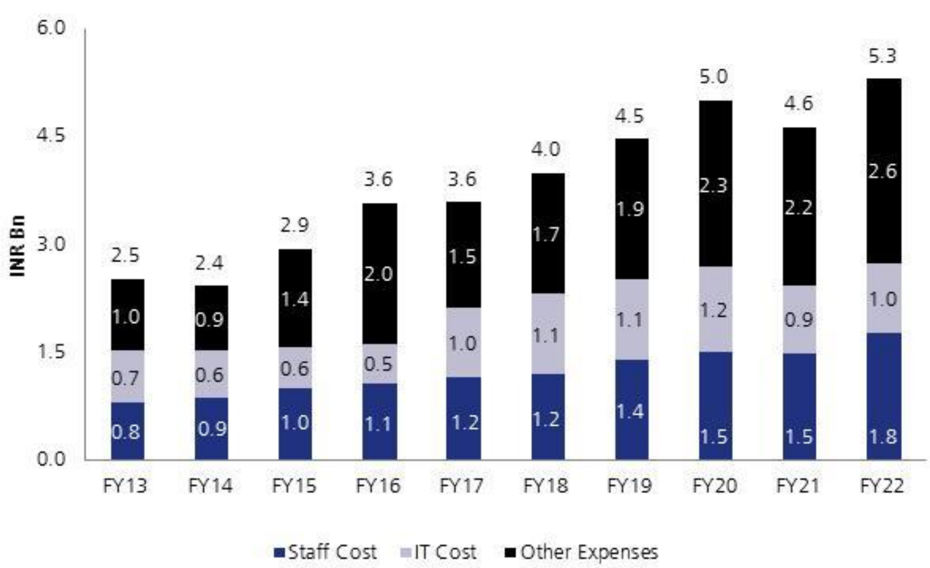


Source: Company, JM Financial; Note FY22 data

d) BSE's total expenses has grown at a slower pace

BSE's total expenses have grown at a slower pace of 8.6% CAGR over FY13-22 vs NSE (19.5% CAGR over FY13-22). This could likely be on account of slower growth in revenue.

Exhibit 54. BSE's total expenses has grown at 8.6% CAGR over FY13-22

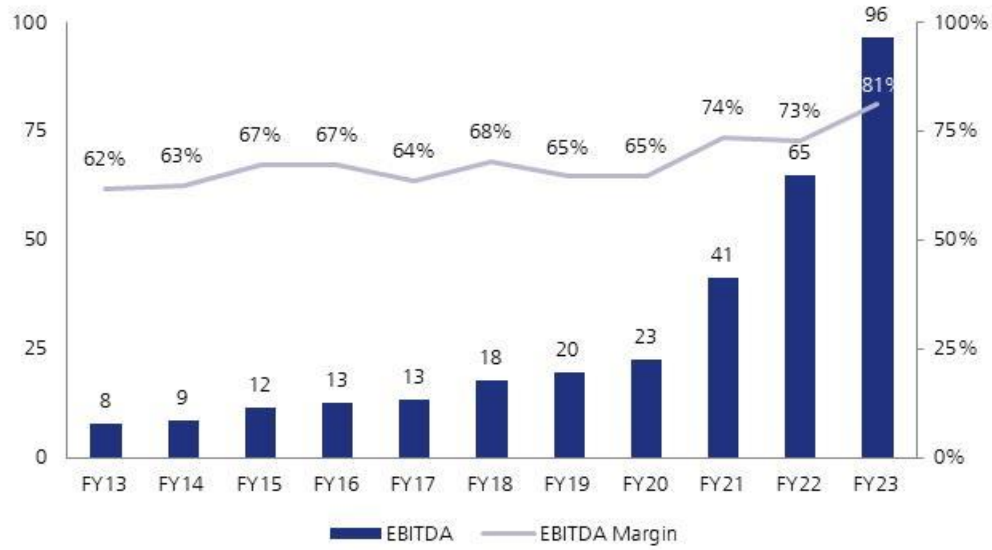


Source: Company, JM Financial

e) NSE: Stronger and more consistent EBITDA margin delivery

NSE's margin has benefited from its fixed-cost model as operating leverage kicked in. During FY13-23, revenue has grown at 24.9% CAGR while total expense has grown at 16.3% CAGR. This has resulted in EBITDA margin expansion for NSE over the years. NSE delivered an average EBITDA margin of 65% over FY13-20, i.e., pre-Covid. With the spike in trading volume post Covid and consequent jump in revenue, EBITDA margin has increased to 75.9% on average during FY20-23.

Exhibit 55. EBITDA margin trajectory improved post Covid

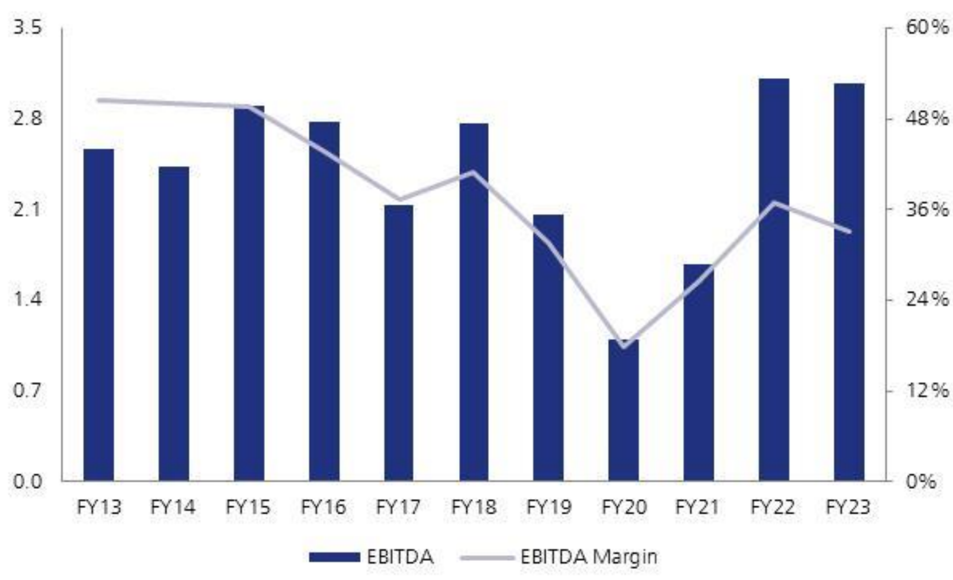


Source: Company, JM Financial

f) BSE's margin profile remains volatile

BSE's lower scale vs NSE has resulted in lower margin profile for the former. Further, BSE's margin has been more volatile than NSE with margins being impacted by cyclicality of the business over the years.

Exhibit 56. BSE's margin profile has remained volatile

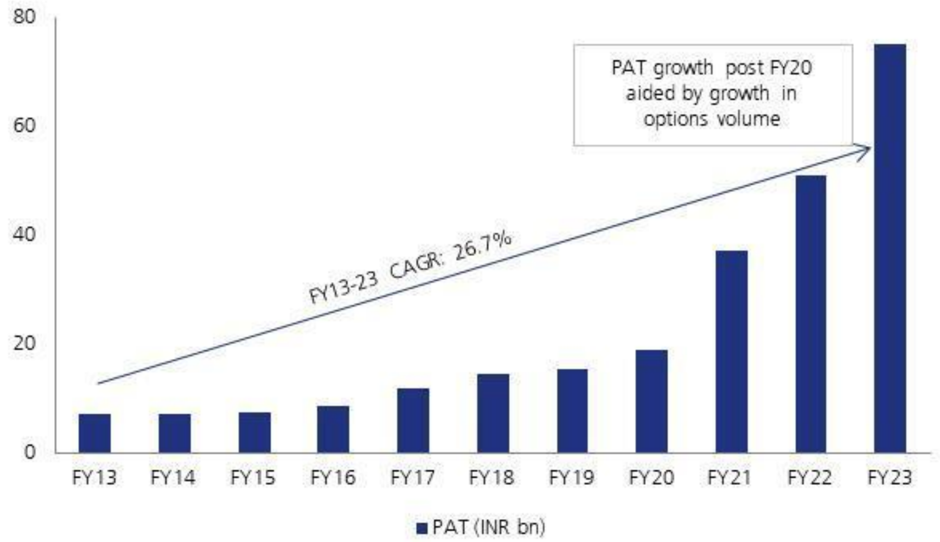


Source: Company, JM Financial

g) NSE's profitability supported by increasing revenue and higher margin

NSE's adjusted PAT increased at 26.7% CAGR over FY13-22 to INR 75bn in FY23, driven by high revenue growth and improving EBITDA margin. Depreciation is low as it has low fixed assets, mainly comprising equipment for IT infrastructure. The company has zero interest cost as it does not hold any debt. NSE generates c.9% of PBT from other income, mainly consisting of interest income on investments and gains from the sale of investments. Interest on operating funds such as margin money/settlement obligation forms part of operating revenue while interest on own cash forms part of other income.

Exhibit 57. NSE's PAT has grown significantly post Covid

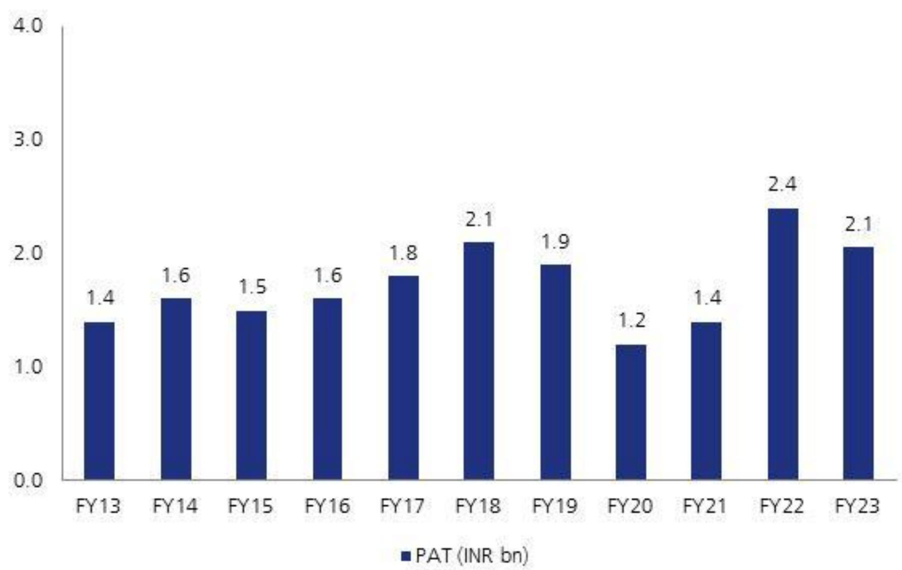


Source: Company, JM Financial

h) BSE's profitability growth impacted due to minimal share across equity derivatives

BSE's PAT has grown at a much slower rate of 3.9% CAGR over FY13-23 as compared to NSE given its minimal market share in the equity derivatives segment. This segment has witnessed a surge in trading volume, which has aided NSE's profits. BSE's lower margin vs. NSE has also resulted in slower PAT growth.

Exhibit 58. BSE's PAT growth has been slower at 3.9% CAGR over FY13-23

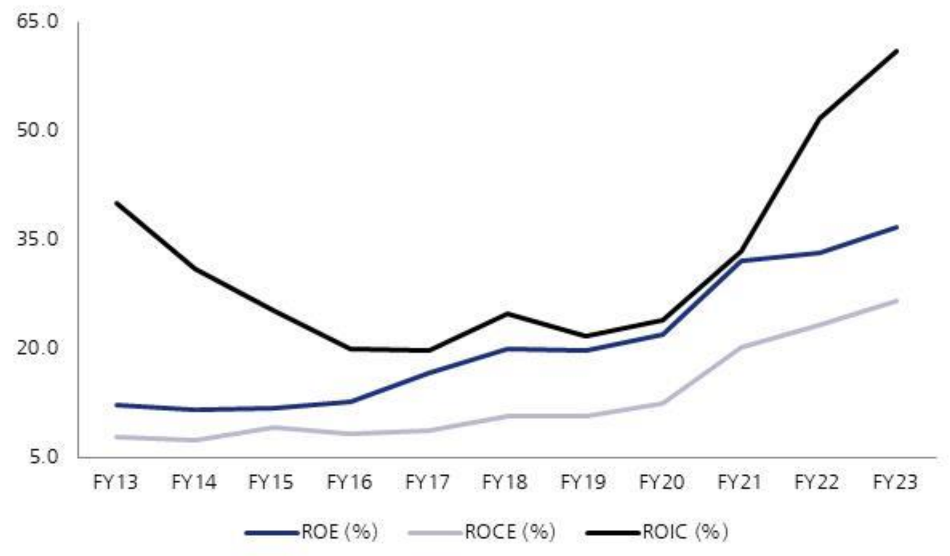


Source: Company, JM Financial

i) RoCE low driven by high accumulated profits

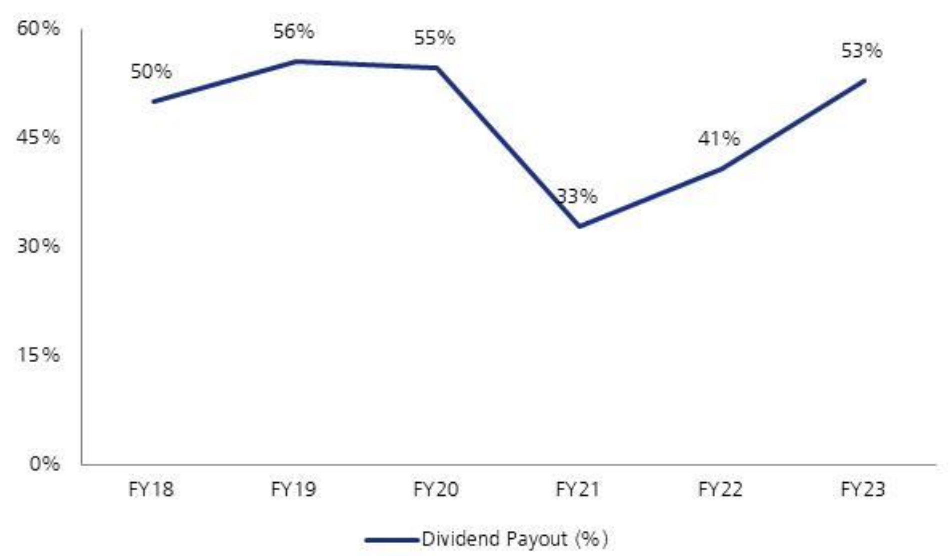
NSE has high accumulated profits driven by historical dividend payout of sub-50%. Reported net cash of INR 204bn as on Mar'23 includes ~INR 129bn towards margin money/settlement obligation, members' deposits and Core SGF, which are restricted in nature. Cash accounts for ~37% of capital employed, resulting in lower RoCE. As per regulatory requirement, the company also maintains regulatory funds such as Settlement Guarantee Fund. This has led to optically lower return ratios.

Exhibit 59. NSE's RoE impacted due to high accumulated profits and higher cash



Source: Company, JM Financial;

Exhibit 60. NSE's dividend payout has averaged ~48% over FY18-23



Source: Company, JM Financial

F) Key risks

a) **Options segment growth may be impacted by regulatory actions:** Given the stupendous growth in options trading, the regulator may step in sometime in the future to protect the vulnerable investor class – 25%. Increase in STT on stock options incorporated recently by the regulator. Any drop in options trading volume could adversely impact NSE's revenues given ~81% of transaction revenue comes from options.

b) **Computer and communications systems may fail to perform effectively:** In Feb'21, NSE's trading system was halted due to certain issues in the links with telecom service providers, which, in turn, impacted the Storage Area Network (SAN) system of NSE, resulting in the primary SAN becoming inaccessible to the host servers. This also resulted in the risk management system of NSE Clearing Limited (NCL) and other systems such as clearing and settlement, index and surveillance systems becoming unavailable.

c) **Revenue from co-location services under regulatory scanner**: SEBI had initiated an examination into the co-location facilities of the company and directed it to a) conduct an independent forensic examination by an external agency, b) to deposit the revenue generated from co-location in a separate bank account, and c) submit a comprehensive report to SEBI. SEBI passed an order - disgorgement of INR 6.25bn (incl. 12% interest). However, SAT directed the parties for a refresher hearing; after the hearing concluded, in Jan'23. SAT slashed the disgorgement order of INR 6.25bn. Instead, NSE has been asked to pay INR 1bn towards SEBI's investor protection fund for its failure on due diligence. SEBI can appeal the SAT order in the Supreme Court in future.

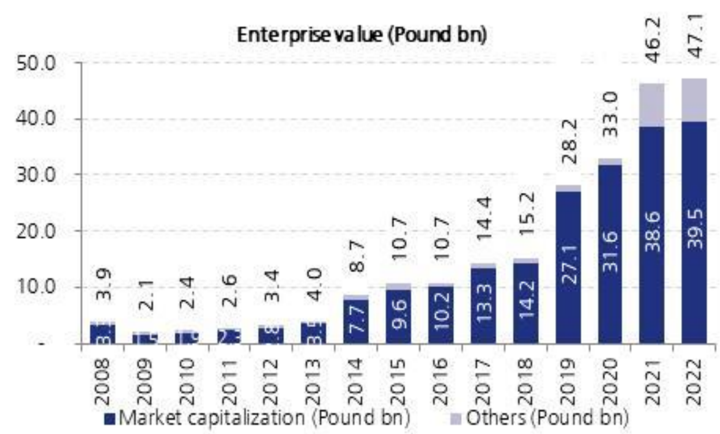
d) **Disruptive trading platforms and technologies:** While block-chain has the potential to disrupt the financial market ecosystem, questions still remain on the scalability of technology and other operational risks in adopting the technology. Banks launching their own alternative trading systems (dark pools) and some exchange groups developing to become technology providers for others is fragmenting the market in developed economies.

G) Annexures

LSE reinventing itself time and again to create shareholder value

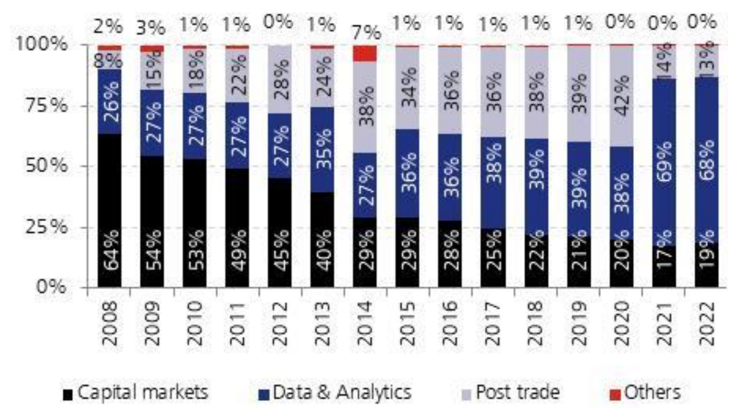
Constant value creation at London Stock Exchange driven by revenue diversification: The LSE has reinvented its business model by constantly diversifying and adding innovative products and services, thus creating value for its stake holders. Revenue share from Data & Analytics services has increased from c.26% in 2008 to c.38% in 2020 (pre-acquisition of Refinitiv). The LSE remains a key example of transformation with capital markets comprising just c.19% of its revenues (vs. c.64% in 2008) and with most of its business now based neither on shares nor on trading, but on other securities/activities; interest rate swap clearing and information services are its key revenue drivers. LSE's acquisition of Refinitiv for USD 27bn (announced in Aug'19 but completed in Jan'21) has helped improve contribution from Data & Analytics given Refinitiv provides market data, analytics and execution capabilities across all asset classes. Following the acquisition, Data & Analytics services now form c.68% of LSE's total revenue vs. 38% (CY20). The deal highlights changing priorities of stock exchanges.

Exhibit 61. LSE's EV/market cap growth – constant value creation



Source: Company, JM Financial

Exhibit 62. LSE's revenue mix changes post acquisition of Refinitiv



Source: Company, JM Financial

Settlement Guarantee Fund - a timeline

- SGF was created in 1997 (after the Harshad Mehta scam) to ensure maintenance of market equilibrium in case of payment default by stock brokers, as well as to inculcate confidence in the minds of secondary market participants. The fund is also used when a trading member fails to deliver the security.
- The regulations upto 2014 in case of SGF required transferring 25% profits to SGF.
- During 2014, a regulation stated that clearing corporations must maintain a CSGF. The clearing corporation and the stock exchange were required to contribute at least 50%/25% to the quantum of the CSGF. With this regulation, stock exchanges discontinued the 25% contribution of annual profit to SGF.
- During May'16, the regulator stated that the requirements of contribution to SGF and CSGF were mutually exclusive. This meant exchanges and clearing corporations would have to comply with the requirement of 25% contribution of the prior 2 years to the SGF.
- However, in Aug'16, the regulator amended the regulation to remove the provision that required the 25% contribution of profits to the SGF.
- As of FY23, NSE had a CSGF corpus of INR 53bn+ outstanding. NSE intends to increase the CSGF corpus to INR 100bn over the next few years in phases.

The contribution to CSGF by the parent (NSE) is recorded as an expense in the consolidated P&L (above PBT), while the contribution of NSE Clearing Ltd is recorded as an appropriation from the group's retained earnings in the consolidated balance sheet. The appropriations to the retained earnings in the past 3 years have been minimal.

Details of NSE's co-location issue details

- Allegation: Certain select trading members who used the NSE's co-location facilities (Dec'12 - May'14) were able to gain materially from the exploitation of the market feed dissemination architecture to receive market data more quickly than other trading members.
- Securities and Exchange Board of India (SEBI) directed NSE to carry out an investigation including forensic examination in respect of certain aspects of NSE's co-location facility.
- SEBI in Sept'16 directed that pending completion of investigations, all revenue from the co-location facility (from Sept'16) be transferred to a separate bank account.
- SEBI issued three separate show cause notices to NSE and to some of its employees in respect of the alleged preferential access to tick by tick data in NSE's co-location facility. NSE filed a consent application with SEBI in Aug'18.
- SEBI vide its letter dated Apr'19 returned the consent application and passed orders in respect of all the three show cause notices which include a) disgorgement of INR 6.25bn (including 12% interest), b) deposit of INR 626mn (including 12% interest), and c) non-monetary directions.
- NSE also received adjudication notices covering the above three orders for which it filed its replies with SEBI. SEBI passed orders and levied monetary penalty of INR 10mn, INR 70mn and INR 10mn, respectively.
- NSE's appeal in respect of the co-location matter was heard by SAT and reserved for orders. NSE, in the interim, filed an application with SAT to permit withdrawal of the amounts transferred and to discontinue the transfer of all revenue to such separate bank account, going forward.
- SAT heard the matter in May'21 and gave an order favouring NSE. SAT directed NSE to transfer an additional amount of INR 4.2bn into an interest-bearing account with SEBI (remitted by NSE in Jun'21). As of Sep'22, a total amount of INR 11.1bn has been deposited by the company with SEBI.
- SAT directed the parties for a refresher hearing after which, in Jan'23, it slashed the disgorgement order of INR 6.25bn. Instead, NSE was asked to pay INR 1bn towards SEBI's investor protection fund for its failure on due diligence.
- With respect to adjudication orders, SAT, in response to an appeal filed by the company, also stayed the penalty levied by SEBI.

Interoperability

Interoperability refers to a mechanism wherein trades executed on any exchange—BSE, NSE or MSEI—can be settled or cleared through any of the clearing corporations and not necessarily restricted to the clearing corporation of the exchange on which the trade was done. For instance, a trade executed on NSE can be settled through BSE's Indian Clearing Corporation and vice versa. SEBI vide circular dated 8th Jan'21 has allowed transfer of excess contribution made by stock exchanges from Core SGF of one clearing corporation to the Core SGF of another clearing corporation, in an inter-operable scenario.

Exhibit 63. Director and management overview

Name	Designation	Comments
Directors		
Girish Chandra Chaturvedi	Chairman & Public Interest Director	MSc Social Policy and Planning in Developing Countries from the London School of Economics, University of London, United Kingdom
Ashishkumar Chauhan	Managing Director & CEO	B. Tech (IIT-Bombay) and PDGDM (IIM-Calcutta)
K Narasimha Murthy	Public Interest Director	CA & ICWA
S Sudarshan	Public Interest Director	B. Tech (Computer Science) from Indian Institute of Technology Madras, MS (Computer Sciences) from University of Wisconsin-Madison, U.S.A and PhD (Computer Sciences) from University of Wisconsin-Madison, U.S.A
Mona Bhide	Public Interest Director	LL.B Degree from University of Mumbai, LL.M Degree from Northwestern University, School of Law, Chicago.
S. Ravindran	Public Interest Director	Former Executive Director at SEBI
Veneet Nayar	Shareholder Director	Former Vice Chairman and CEO of HCL Technologies
Key Management Personnel		
Ashishkumar Chauhan	Managing Director & CEO	B. Tech (IIT-Bombay) and PDGDM (IIM-Calcutta)
Yatrik Vin	Group Chief Financial Officer & Head - Corporate Affairs	Master's Degree in Commerce
Somasundaram K S	Chief Enterprise Risk Officer	B.E. (Hons.)- BITS, MBA from IIM B

Source: Company, JM Financial

Exhibit 64. Comparison of transaction fees

Segment	Total Monthly Traded Value (INR/mn)	Transaction Charges (INR/mn of traded value)		
		NSE	BSE	
			Non Exclusive	Exclusive
Equity Cash	upto 12,500	32.5	37.5	27.5
	above 12,500 to 25,000	32.0		
	above 25,000 to 50,000	31.5		
	above 50,000 to 1,00,000	31.0		
	above 100,000 to 1,50,000	30.5		
	above 1,50,000	30.0		
Equity Futures	upto 25,000	19.0	5.0	
	above 25000 to 75000	18.5		
	above 75000 to 150000	18.0		
	above 150000	17.5		
Equity Options	upto 30	250.0	250.0	
	above 30 to 1000	500.0		
	above 1,000 to 7,500	475.0		
	above 7,500 to 15,000	425.0		
	above 15,000 to 20,000	375.0		
	above 20,000	300.0		

Source: JM Financial, NSE, BSE

a) 4QFY23 Quarterly Results

Exhibit 65. NSE – quarterly financial summary (consolidated) (INR mn)

	4QFY23	4QFY22	YoY %	3QFY23	QoQ %
Net Sales	**34,532**	**28,451**	**21.4**	**29,915**	**15.4**
Total expenditure	**6,916**	**8,080**	**-14.4**	**8,079**	**-14.4**
Employee Expenses	971	2,261	-57.1	1,976	-50.9
Other expenses	5,945	5,819	2.2	6,102	-2.6
EBITDA	**27,616**	**20,371**	**35.6**	**21,837**	**26.5**
EBITDA (%)	80.0	71.6		73.0	
Depreciation	1,018	1,188	-14.3	993	2.5
EBIT	**26,598**	**19,183**	**38.7**	**20,844**	**27.6**
Other income	3,115	1,612	93.2	2,714	14.8
Contribution to core SGF	(2,035)	-		-	
PBT	**27,678**	**20,795**	**33.1**	**23,558**	**17.5**
Tax	6,949	5,332		5,637	
Eff. Tax rate (%)	25.1	25.6		23.9	
XO income / (expenses)	-	16		-	
PAT before MI/Assoc.	**20,729**	**15,479**	**33.9**	**17,921**	
Income from Associates	250	324		276	
PAT- Reported	**20,979**	**15,803**	**32.8**	**18,197**	**15.3**
PAT- Adjusted	**20,979**	**15,791**	**32.9**	**18,197**	**15.3**
Diluted EPS (INR)	42.4	31.9	32.9	36.8	15.3

Source: Company, JM Financial

H) Financial Tables (Consolidated)

Income Statement (INR mn)

Y/E March	FY19	FY20	FY21	FY22	FY23
Net sales	**30,278**	**35,079**	**56,248**	**89,295**	**1,18,562**
Growth (%)	16.0	15.9	60.3	58.8	32.8
Total Expenditure	10,731	12,420	14,841	24,302	22,248
EBITDA	**19,547**	**22,660**	**41,407**	**64,993**	**96,315**
EBITDA (%)	64.6	64.6	73.6	72.8	81.2
Growth (%)	10	16	83	57	48
Depreciation & amort.	1,420	1,808	2,260	3,384	3,841
EBIT	**18,127**	**20,852**	**39,147**	**61,609**	**92,474**
Other non-op. income	4,868	3,896	5,775	5,702	9,091
Contribution to Core SGF	-	621	(621)		2,035
Pre tax profit	**22,994**	**24,127**	**45,543**	**67,311**	**99,531**
Taxes	8,682	6,405	8,916	17,140	25,397
Tax (%)	35.2	26.5	20.3	25.1	25.5
PAT before EO	**14,313**	**17,722**	**36,627**	**50,171**	**74,134**
Extraordinary items	1,697	0	-1,552	910	0
PAT before MI/Asoc.	16,010	17,722	35,075	51,080	74,134
Associates	1070	1126	659	903	885
Reported Net profit	**17,080**	**18,850**	**35,737**	**51,950**	**75,007**
Adjusted net profit	**15,383**	**18,850**	**37,289**	**51,040**	**75,007**
Diluted share capital (mn)	495.0	495.0	495.0	495.0	495.0
EPS (Rs)	**31.1**	**38.1**	**75.3**	**103.1**	**151.5**
Growth (%)	5	23	98	37	47

Source: Company, JM Financial

Cash Flow Statement (INR mn)

Y/E March	FY19	FY20	FY21	FY22	FY23
Net profit	15,383	18,850	37,289	51,040	75,007
Depreciation/amort.	1,420	1,808	2,260	3,384	3,841
(Inc)/dec in working cap.	-17,311	-23,817	23,120	-42	-52215
Cash from operations (a)	**-508**	**-3,159**	**62,669**	**54,382**	**26,633**
(Inc)/dec in investments	14,275	3,777	-29,410	-12,277	-34,881
Capex	-1,067	-2,601	-3,428	-6,672	-3786
Change in minorities	14	-6	-5	77	-59
Others	5,182	5,107	8,675	11,271	49,397
Cash flow from inv. (b)	**18,403**	**6,276**	**-24,168**	**-7,601**	**10,671**
Inc/(dec) in capital	0	0	0	0	0
Dividends + dividend tax	-11,235	-12,402	-12,251	-20,790	-39,600
Financial cash flow (c)	**-11,235**	**-12,402**	**-12,251**	**-20,790**	**-39,600**
Net inc/dec in cash (a+b+c)	6,660	-9,285	26,250	25,991	-2,296
Op. cash bal. own	27,980	34,640	25,356	51,605	77,596
Cl cash bal. own	34,640	25,356	51,605	77,596	75,301

Source: Company, JM Financial

Balance Sheet (INR mn)

Y/E March	FY19	FY20	FY21	FY22	FY23
Share capital	495	495	495	495	495
Reserves & surplus	73,001	85,718	1,15,864	1,53,609	2,04,290
Networth	73,496	86,213	1,16,359	1,54,104	2,04,785
Minority Interest	0	7	2	79	19
Core SGF	24,336	34,267	37,928	42,551	52,836
Deferred tax liability	1,569	1,523	1,183	1,379	1,584
Sources of funds	**99,401**	**1,22,009**	**1,55,472**	**1,98,113**	**2,59,223**
Gross Fixed assets	15,503	18,682	22,786	28,348	32,826
Less: Depreciation/amort.	9,646	11,404	13,664	16,154	20,899
Net block	5,857	7,278	9,122	12,195	11,927
CWIP	654	1,144	468	1,577	985
Investments - Long Term	11,612	8,648	4,667	5,637	6,494
Invest. - Current	15,869	782	34,173	45,479	79,502
Current assets	1,48,215	2,23,553	2,43,572	2,90,978	2,66,622
Goodwill on Consol.	674	1,286	3,960	4,109	2,069
Sundry debtors	3,977	6,521	9,986	16,150	15,892
Cash and Bank Bal.	1,67,537	2,01,612	2,15,428	2,52,136	2,20,600
Loans & advances	146	7,237	7,204	11,295	7,731
Other current assets	4,445	6,897	6,995	7,289	20,330
Current liabilities & prov.	82,860	1,19,694	1,36,584	1,57,957	1,06,420
Deposits from Members	19,213	18,894	19,858	23,290	28,865
Provisions and others	63,647	1,00,800	1,16,726	1,34,667	77,555
Net current assets	65,355	1,03,858	1,06,988	1,33,021	1,60,202
Others	55	300	55	204	113
Application of funds	**99,401**	**1,22,009**	**1,55,472**	**1,98,113**	**2,59,223**

Source: Company, JM Financial

Key Ratios

Y/E March	FY19	FY20	FY21	FY22	FY23
BV/share (Rs)	157	174	235	311	414
ROCE (%)	10.7	12.6	20.1	23.3	26.6
ROE (%)	19.8	21.9	32.0	33.1	36.6
Debt-equity ratio (x)	0.0	0.0	0.0	0.0	0.0
Turnover ratios (no.)					
Debtor days	55	68	65	66	49
Inventory days	NA	NA	NA	NA	NA
Creditor days	NA	NA	NA	NA	NA

Source: Company, JM Financial

APPENDIX I

JM Financial Institutional Securities Limited

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Hold	Price expected to move in the range of 10% downside to 10% upside from the current market price for stocks with market capitalisation in excess of INR 200 billion and REITs* and in the range of 10% downside to 15% upside from the current market price for all other stocks, over the next twelve months.
Sell	Price expected to move downwards by more than 10% from the current market price over the next twelve months.

* REIT refers to Real Estate Investment Trusts.

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