

NSE INITIATION OF COVERAGE:

A classic case of bringing a knife to a gun fight?

» We initiate our coverage of Nairobi Securities Exchange with a HOLD:

The Nairobi Exchange is currently trading at an almost **52-week** low price of **KES 10.40**. The stock is trading at a **12.9%** discount to our Target Price of **KES 11.74** per share. The stock also appears to be also trading at an attractive **P/B** and **P/E** of **1.32x** and **14.56x** respectively compared to the **SSA median P/B** and **SSA median P/E** of **3.27x** and **22.47x** respectively. We currently believe that the premium that the market is currently demanding for the stock may be justified given the opportunity cost and the discomfort of holding a stock with an uncertain path back to profitability. Volatile operating income and decreasing profitability are going to be the likely outcome as the investors take a risk-off approach and geo-politics come to the forefront in the medium term. We, therefore, recommend that investors look elsewhere for now but keep a close eye on any change in NSE's medium-term outlook.

» The undervaluation may just be a classic case of the wrong product at the wrong time:

The current NSE undervaluation may be the market pricing in the implication of the company's limited portfolio of products. The company currently has narrow offerings on Equity, Equity derivatives and Fixed Income instruments. Limited product offerings for exchanges tend to lead to earnings under performance during market downturns and during periods of heightened uncertainty. The NSE revenue performance also happens to be heavily sensitive to the performance of the equity trading levies. The sensitivity drives the Operating Income dependence on the performance of the equity market. A strong equity turnover usually leads to positive NSE earnings performance. The market indicators, NSE equity turnover & market capitalization, all hit lows during the year. The market may just be pricing in the possible implications of the decline of leading market indicators on the company's FY19 performance. The company may be paying a price for offering the wrong portfolio during a time of high uncertainties.

» The 82% decline recorded in NSE's H1FY19 PAT performance will likely signal the market valuations lower:

The loss aversion present in the equity market is likely to reward the poor **H1FY19** NSE by reinforcing the downward spiral of its price. In times of low-risk market appetite, the declines in profitability for companies with an already besmirched earnings record are punished by a decline in investor confidence. The NSE is still in the investor's little black book after recording a decline of **10.6%** in its FY18 performance. The poor **H1FY19** PAT performance is likely to delay any recovery of sentiments on the stock. NSE's price performance may continue to deteriorate as investors change their focus towards fixed income. Local investors are now mostly demanding capital protection rather than chase yields in the equity market. We, therefore, propose to investors to be cautiously optimistic. The tailwinds that should have driven the market valuation of NSE towards our target price in the next **12-months** has dissipated.

» We expect a rough earnings patch in the medium term to obscure price discovery on NSE:

We expect that NSE's poor earnings may continue well into **2022** as market uncertainty and Geo-politics continue to drive investor focus away from equities. The global demand for equities remains soft due to mounting fears that Brexit and fallout from the Sino-American trade war may lead to a recession in the near term. The global recession worries have now come to the forefront after recent economic data from Europe and Asia suggest that a potential slowdown may be already underway. These worries we opine may spill over to **2020** as the US presidential election heats up and rhetoric on trade heats up. Donald Trump will likely escalate the extent of his 'Trade tariffs' diplomacy to propel him to the front of voter popularity. Any adverse effects from the US presidential election may be worsened by the Kenyan General elections slated for **2022**. These geopolitical factors leave us indifferent to NSE despite the upside.

September 6, 2019

NSE

Rating: **HOLD**Target Price **11.74**Current Price **10.40**Upside **12.9%**Dividend Yield(ntm) **2.6%**Forecast Total Return **15.5%**52- Week trading range **10.00 to 17.05**

Analysts:

Victor c. Koech,+254711047133,
koechv@aibcapital.com

Table of Contents

NSE IOC: <i>A classic case of bringing a knife to a gun fight?</i>	1
THE GLOBAL STOCK EXCHANGE INDUSTRY : The Structural Changes	3
Figure 1.1: Mergers & Acquisition graph	3
Figure 1.2: Mergers & Acquisition graph	4
Figure 1.3: Stock Exchange Revenue Structure	5
Figure 1.4: Global Equity :Market Capitalization	5
Figure 1.5: Global Equity: Number of listed	5
NAIROBI SECURITIES EXCHANGE : Investment Summary	6
NAIROBI SECURITIES EXCHANGE: Investment Thesis: HOLD at KES 11.88	6
Figure 2.1: Nairobi Securities Exchange - Total Income structure	6
Figure 2.2: Kenyan Pension Industry - Asset allocation	7
Figure 2.3: Kenyan Market Indices	7
Table 2.1: Average CBLR vs IPO/Equity floatations activity	8
Figure 2.4: New Equity listings by exchange	8
Table 2.2: Product mix by exchange	9
Figure 2.5: Operating Income growth vs Administrative Expenses	10
Figure 2.6: CFO growth vs Operating Income growth VS NCI growth	10
Figure 2.7: Earnings Quality: CFO to Net Income	11
Figure 2.8: ROE breakdown.	12
NAIROBI SECURITIES EXCHANGE: Valuation & Price Target	12
Table 2.3: WACC Assumptions.	12
Table 2.4: DCF Assumptions.	13
Table 2.5: DCF Valuation.	13
Table 2.6: Blended Relative Valuation	14
Table 2.6: Target Price	14
NAIROBI SECURITIES EXCHANGE: Global Peers	15
NAIROBI SECURITIES EXCHANGE: Key Risks to our investment thesis	16
INCOME STATEMENT: Nairobi Securities Limited	11
BALANCE SHEET STATEMENT: Nairobi Securities Limited	17
Research Disclosure & Notice to Investors	18

THE GLOBAL STOCK EXCHANGE INDUSTRY

The Structural Changes: *Two forces are changing the face of exchanges Globally*

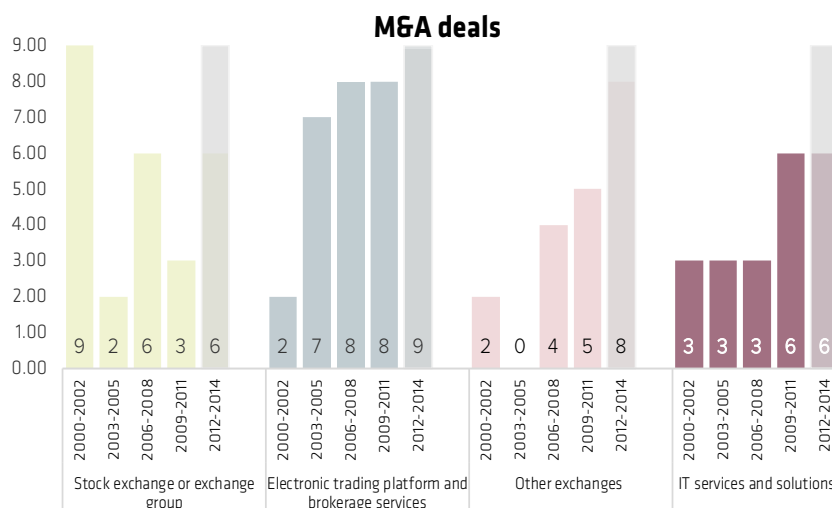
» **The regulated exchanges industry has become more profit-oriented.**

The stock exchanges landscape has evolved. Most regulated stock exchange operators have been transformed into privately owned for-profit corporations from their member-owned or government institution roots. Today, all major regulated exchanges operating in developed economies now have their shares listed and trade on their exchanges. The change is a full evolution from the mid-1990s when all the stock exchange operators were either member-owner or run by governments. The transformation of stock exchange operators to for-profit companies, however, has been slower in emerging markets with some stock exchanges such as the located in Turkey, People's Republic of China (PRC) and Saudi Arabia still run as state-owned enterprises.

» **Mergers and acquisitions are changing the global landscape.**

Since 2000 the global stock exchange industry has been changed profoundly. Since the turn of the 21st Century, a majority of the traditional stock exchanges have been acquired by another entity or become subsidiaries of a listed for-profit parent company. These new developments have meant that the stock exchange industry as a whole, has witnessed a spate of M&A deals paving way for cross-border operators of regulated exchanges such as intercontinental in North America, Europe and Asia. A large number of mergers and acquisitions (M&A) in the stock exchange industry has seen companies in asset management, data management, financial information providers and electronic trading platforms.

Figure 1.1: Mergers and Acquisition graph



Source: Based on data from 16 stock exchanges, Factset, OECD calculations, OECD Business and Finance Outlook

» **New players have emerged to compete with the traditional Stock Exchanges.**

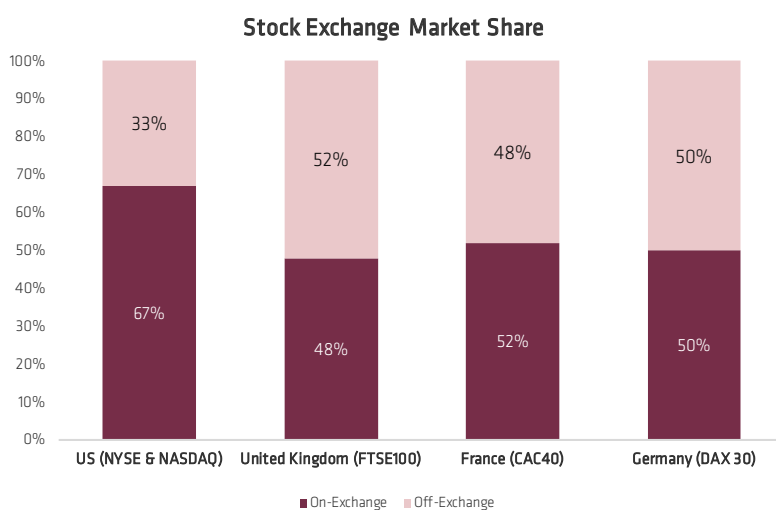
Supportive regulations aimed at increasing competition in the public equity markets have helped spurn new challengers to traditional stock markets players. Off-exchange venues such as Alternative Trading Systems (ATSs) in the US and Multilateral Trading Facilities (MTFs) in Europe now compete with traditional stock exchanges. In addition to exchanges and off-exchange (ATSs and MTFs), investors now can choose to trade through "internalisers". "Internalisers" are Brokers, Dealers or investment firms can trade on their clients order through their internal systems to match their client's order with their internal inventory.

The Structural Changes: *Two forces are changing the face of exchanges Globally*

- » **The overall global public capital market is now fragmented driven by supportive regulation and disruptive ICT technology.**

The significant advantages from economies of scale and enormous externalities of the single venue that traditional stock exchanges enjoyed have been clawed back by disruptive technologies. Cost savings from the execution of all trading within a single location created a huge barrier to entry that made the entrenched traditional stock exchanges natural monopolies. Disruptive communication technologies of the recent past have decreased the cost and time of processing and disseminating large amounts of information upending previous barriers of entry. The technology combined with legislation aimed at enhancing competition in the industry has created a fragmented global public capital market. This fragmentation is especially true in advanced economies. An example of this fragmentation is that in **2015, 67%** of all trading in the US happened across **11** different exchanges but **33%** of trading occurred on off-exchange venues.

Figure 1.2: Stock Exchange Market Share graph

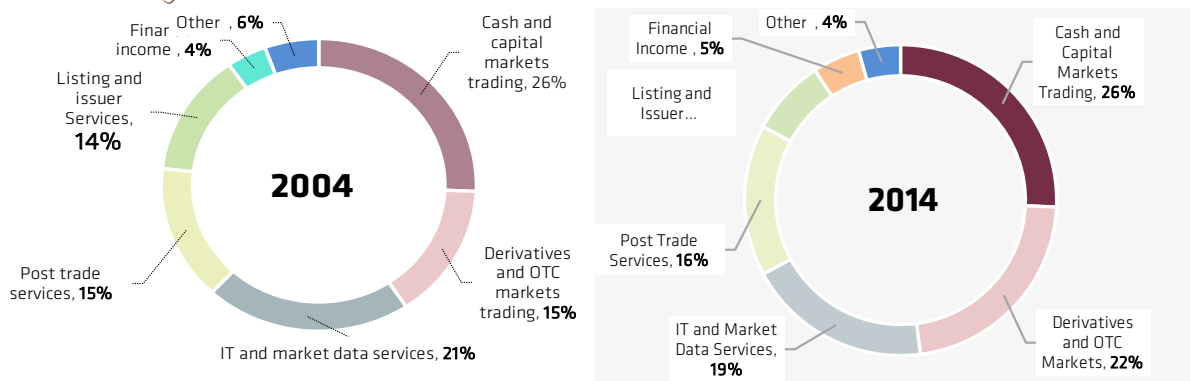


Source: Thomson Reuters, Factset, OECD calculations, AIB Capital.

- » **The Stock Exchange Industries' revenue structure is changing with fees from trading activities dominating.**

A comparison of industry revenue in **2014** and **2004** shows that revenue from OTC and derivative trading increased significantly. In the period under review, revenue from new listings and issuer services now contributes less to the total revenue pie. The increased contribution from trading fees from OTC and derivatives trading has now pushed trading revenues from **41%** (Cash & Capital markets + Derivatives & OTC) in **2014** to about **48%**.

Figure 1.3: Stock Exchange Revenue Structure



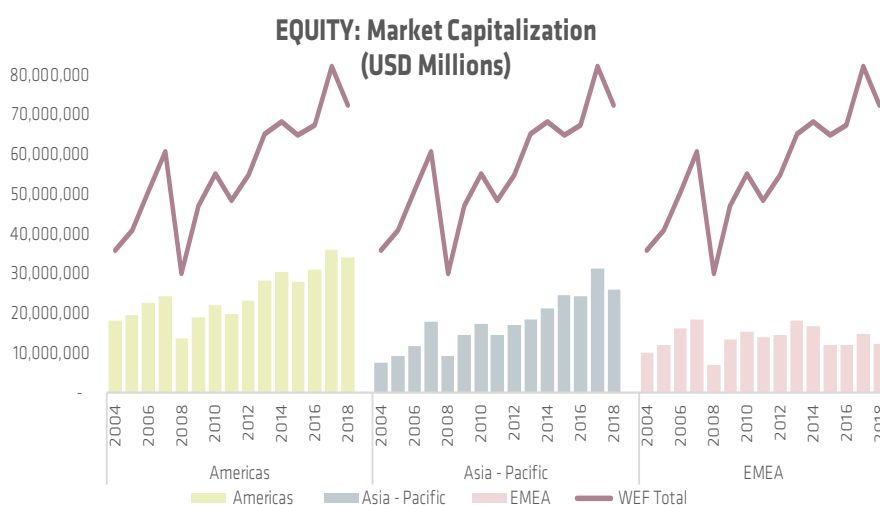
Source: Aggregated revenue data from 18 stock exchanges, OECD, OECD Business and Finance Outlook 2016..

The Structural Changes: *Two forces are changing the face of exchanges Globally*

» The Stock Exchange Equity market capitalization around the globe driven mostly by the Asia-Pacific region.

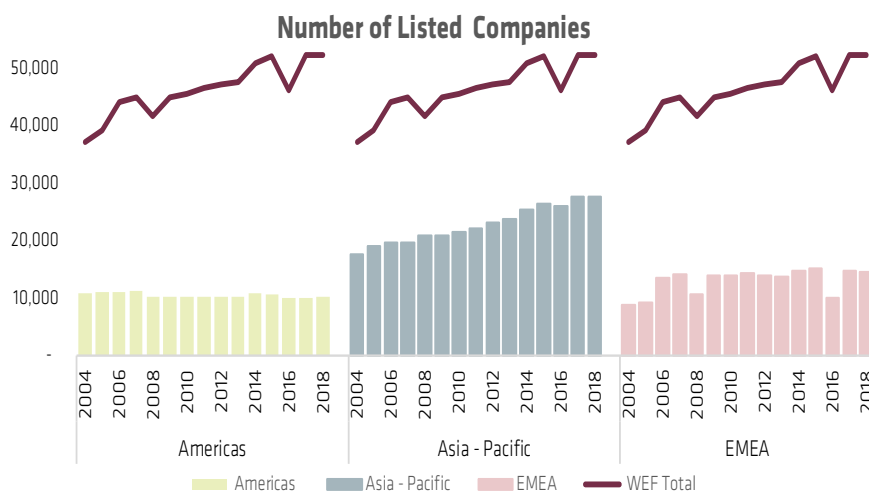
Market Capitalizations have doubled from their **2004** levels. In **2004** the World Federation of Exchanges (WFE) estimates put the market capitalization of listed domestic companies at **USD 35.93 Trillion**. The most recent data from 2018 now puts the global market capitalization of listed domestic companies at about **USD 68.654 Trillion**. The growth of market capitalization has been mainly driven by the emerging Asia-Pacific region. The Asia-Pacific region has seen a surge of the number of listed companies on the exchanges. The rise of listed companies largely drove the growth of Asia Pacific's market capitalization. Today Asian companies remain the largest users of public stock markets. An illustration of the demand of the public capital market access in the region is that in 2018 of the **1,923** IPOs all over the globe, **66%** (or **1,260**) were from the Asia Pacific region.

Figure 1.4: Global Equity: Market Capitalization (USD Millions)



Source: WFE statistic portal, World Federation of Exchanges members, AIB Capital.

Figure 1.5: Global Equity: Number of Listed Companies



Source: WFE statistic portal, World Federation of Exchanges members, AIB Capital.

NAIROBI SECURITIES EXCHANGE:

The Investment Summary

The Investment Thesis: *Initiating with a HOLD at KES 11.74*

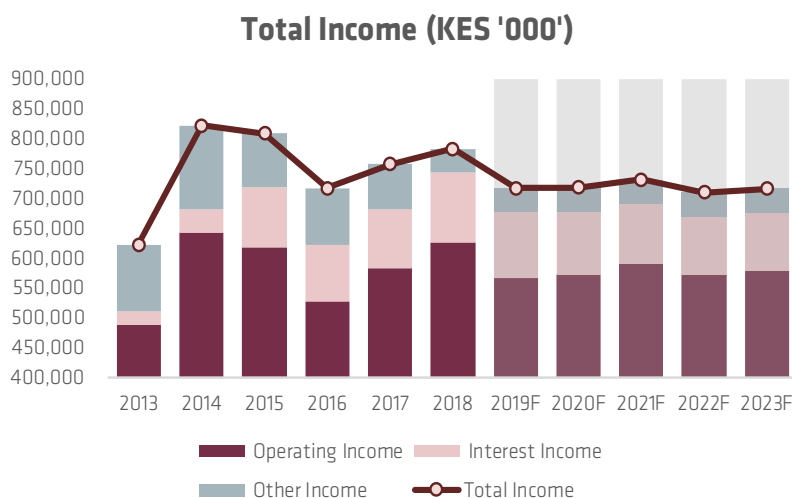
We initiate our coverage on Nairobi Securities with a **HOLD** recommendation at the Target Price of **KES 11.74** per share. We remain **neutral** on the stock despite a **12.9%** upside because we believe there are **no catalysts** present to drive the price towards its fundamental value. We remain indifferent on the counter based on the following points:

» **A volatile operating income remains dominant casting a mixed outlook for the future:**

Nairobi Securities Exchange revenue remains largely derived from its core regulated exchange activities. The expenses and profit are somewhat well supported by a sustainable source of revenue. Operating income has been the largest source of revenue across the three revenue line items and we expect this trend to continue into the future. The operating income can be further divided into seven specific revenue line items:

- i. **Transaction levy:** Revenue NSE gets from charging a percentage of the value of shares traded.
- ii. **Initial listing income** is accrued from providing access for companies to float **IPOs**.
- iii. **Additional listing income** is gained from providing access for companies to float any subsequent rights/ bonus issues.
- iv. **The annual listing fee** is revenue charged to listed firms and is calculated on the basis of the daily weighted average capitalisation value of the listed securities for the 11 months period between 1 January and 30 November.
- v. **Broker Back Office Subscription** is revenue derived from NSE offering market participants access to a software that automates the operations associated with transacting securities on the exchange.
- vi. **Data vending** is revenue derived from selling critical trading information such as Real-Time data, End of Day data, historical market data and NSE publications.

Figure 2.1: Nairobi Securities Exchange - Total Income structure



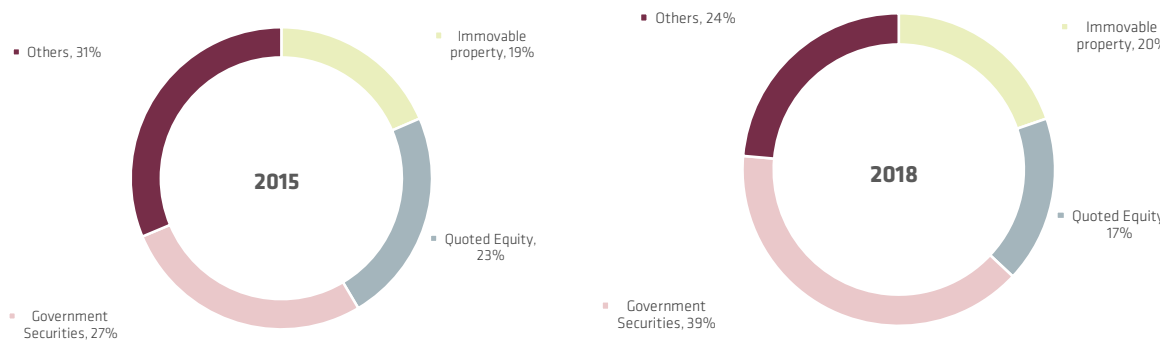
Source: NSE financial statements, AIB Capital.

The operating income, however, has stubbornly remained volatile compared to non-core income. Operating income is likely to continue to remain volatile. In the current risk-averse dispensation, the investors are likely to continue to demand a premium for investing in a counter with little earnings resilience. The operating income peaked in **FY14** and was on the decline up until **FY16**. We believe that emerging headwinds are now gathering and that operating income is likely to now decline well into the **FY22**. Our assumption is mainly driven by our expectation of a continued decline of investor appetite for equities and also by the firming up of global socio-political pressures. Global uncertainty continues to suppress foreign investor participation in the exchange. The dearth of investor participation on the exchange has also been worsened by the recent emergence of risk aversion of local investors. This trend will likely suppress the operating income growth in the medium term.

» **Reliance on the transactional levy is likely to lead to very uncomfortable moments for the investor:**

Nairobi Securities Exchange relies on the transactional levy which accounts for **61%** of its Total Income. We currently project a decline in the transactional levies driven by the decline in equity market capitalization and equity turnover on the exchange. Equity trades provides the highest proportion of transactional levy at **0.12%** of the value of equity turnover. Fixed income securities, on the other hand, contributes an underwhelming **0.0035%** of the value of bonds traded. With disparaging historic equity returns in the last **10-years**, risk aversion among mostly local retail and local institutional investors has increased. Participants have now shifted their focus to fixed income. This change in asset allocation is a trend that could strengthen the decline of operating income in the medium term if uncertainty continues to take hold.

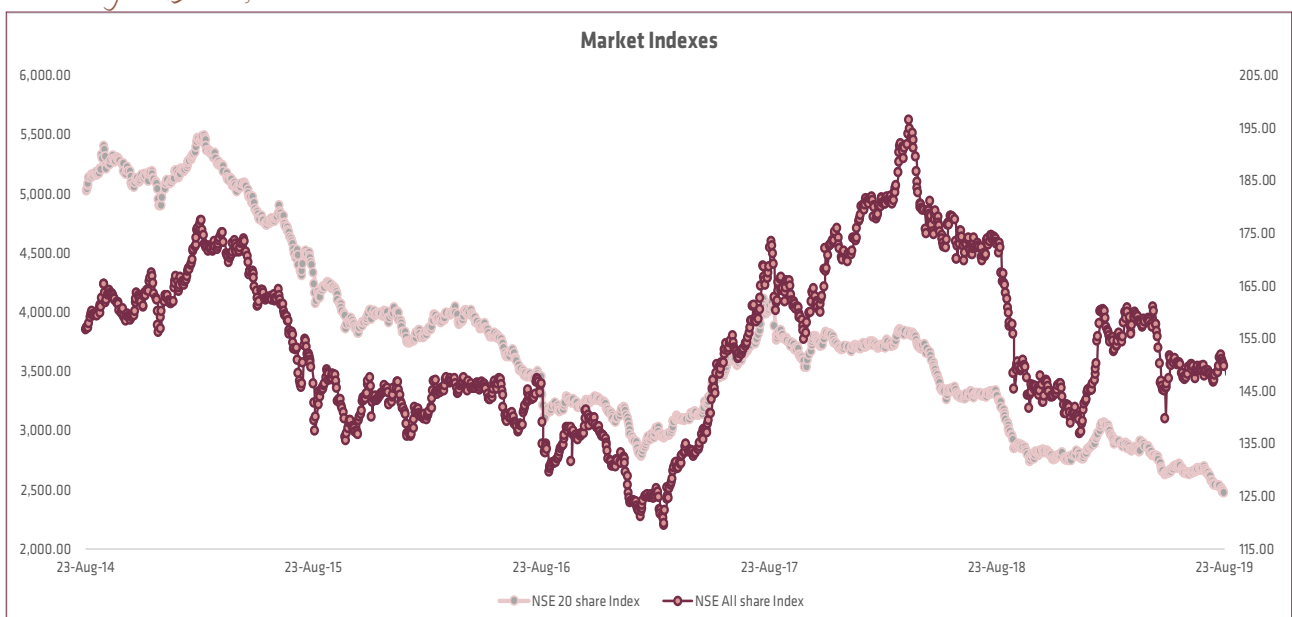
Figure 2.2: Kenyan Pension Industry - Asset allocation



Source: Retirement Benefits Authority Statistical Bulletin, AIB Capital.

Market indices has been on the decline. The **NSE 20**, a measure of the 20 most attractive and liquid stock, has been on a secular drop since **2017**. With no triggers on the horizon to reverse the trend within the equity market and a prospect of lower allocation, we expect the market to remain flat with a downward bias as we head towards the **FY22** elections. The market capitalisation is a second key threat to NSE's future profitability. With equity transaction levy calculated as a percentage of the value of shares traded, NSE's profitability face a grim outlook in the medium term.

Figure 2.3: Kenyan market Indices



Source: Nairobi Securities Exchange data, AIB Capital

» **Lack of Initial Public Offers & floatation threatens the sustainability of the NSE.**

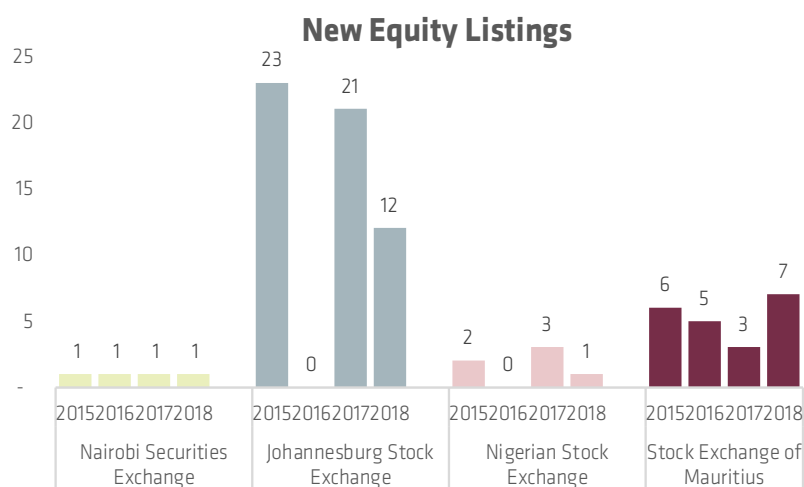
Capital markets offer companies access to finance in direct competition with other sources of finance such as a commercial bank and private sources. On a report on the low uptake of capital products, CMA pointed out that there was a loose relationship between the uptrend of commercial lending rate and new listings between **2002 to 2012**. From **2012** and onwards the trend has not held. We believe trend has been upended by an explosion of financing options. Companies looking for patient capital now have more options than ever before. Companies can now access private debt, private equity and even some international finance institutions to solve their financing needs without subjecting them to the rigorous listing requirements that NSE requires.

Table 2.1: Average CBLR vs IPO/Equity floatations activity

Year	NSE 20 Share Index	Commercial Bank Lending Rate	CBLR Trend	IPOS	Additional Offers (AOs)	Introduction	No of Equity Listings
2002	1,363.00	18.51%					48
2003	2,738.00	16.37%	Down				46
2004	2,946.00	12.53%	Down				48
2005	3,973.00	12.89%	Up				48
2006	5,646.00	13.64%	Up	3	1	1	52
2007	5,444.00	13.33%	Down	2			55
2009	3,247.00	14.80%	Up				55
2010	4,433.00	14.36%	Down		1		55
2011	3,205.00	15.05%	Up	1		2	58
2012	4,133.00	19.65%	Up		2	3	61
2013	4,927.00	17.31%	Down			1	61
2014	5,113.00	16.51%	Down	1		2	62
2015	4,040.00	16.16%	Down	1			64
2016	3,186.21	16.58%	Up		1	1	66
2017	3,711.94	13.67%	Down			1	64

Source: CMA statistical bulletins, CMA study on the low uptake of capital market products

Figure 2.4: New Equity listings by exchange



Source: CMA statistical bulletins, CMA study on the low uptake of capital market products, WFE statistic portal, World Federation of Exchanges members

We believe companies are choosing not to participate in the Nairobi Securities Exchange due to a combination of low cost of loans and availability of other forms of private capital. The listings have thinned out. Household brands that Kenyans know and love are choosing not to be part of NSE. There is an opportunity cost from such companies choosing not to list. The NSE is losing an important source of annuity revenue that would diversify its reliance away from transaction levy. Institutional investors are also losing diversification benefits with Safaricom, Banks and EABL forming the majority of their investable universe. Some investors both foreign and local are now slowly choosing to invest their patient capital through private equity funds, ignoring the exchange entirely. In conclusion, the Ibuka program that aims to grow the interest of companies and capabilities of companies to help them eventually list on the NSE, is very important for the sustainability of the bourse. Its attractiveness in the long term lies in its ability to offer sectoral options and depth.

» **NSE product mix will under-perform during the current market downturn but out-perform if market undergoes surprise recovery.**

NSE currently offers only three major asset classes: Fixed Income Securities, Exchange Traded Products and Equities. The product mix doesn't really compare favourably with big exchange players such as Intercontinental Exchange ICE (owner of NYSE) which offers nine major asset classes: Agricultural commodities (Ag), Fixed Income, Credit Derivatives, FX-foreign currencies, precious metal, interest rates, energy, equities/index/option and exchange-traded products. The global capital market is currently exhibiting heightened volatility in 2019, in direct response to growing global growth uncertainty. The heightened volatility of the global market has affected frontier markets including NSE. Currently, the factors need to catalyse a return to the previous norms are missing. The Sino American trade talks have hit a dead end, the global economic indicators are on a downturn and the Kenyan general elections are fast approaching. The presence of the volatility on the NSE will probably drive participants towards the lower value bond/fixed income asset class, resulting in dwindling fortune for NSE's total income.

Table 2.2: Product mix by exchange

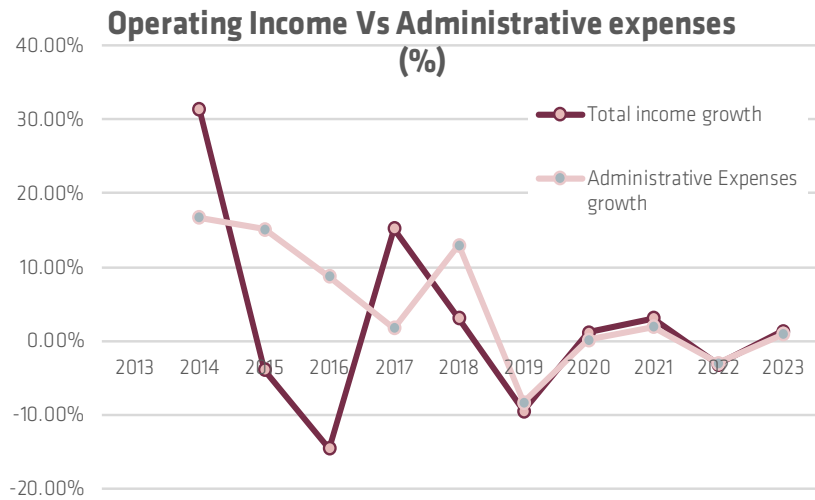
Asset Class	Nigerian Stock Exchange	Nairobi Securities Exchange	Johannesburg Stock Exchange	Intercontinental Exchange
Equities/Equity Derivatives/Index	Yes	Yes	Yes	Yes
Fixed Income	Yes	Yes	Yes	Yes
Exchange Traded Products	Yes	Yes	Yes	Yes
Agriculture (Ag)	No	No	Yes	Yes
Energy	No	No	Yes	Yes
Interest rate	No	No	Yes	Yes
Currency	No	No	Yes	Yes
Precious Metals	No	No	Yes	Yes
Credit derivatives	No	No	No	Yes

Source: CRT Capital Group ICE IOC, NSE Website, Nigerian Stock Exchange website, JSE website,

» **The negative gap between expenses and Income.**

In recent times, the administrative expenses growth for the NSE has outperformed the growth of total revenue. The administrative expenses have been growing consistently since the 2013 Full-year (FY13). This growth of Administrative expenses is mainly driven by the growth of staff costs for the organisation. In contrast to expenses, the revenue growth for the group during the period under review has been volatile. The revenue for the group has grown within a range of **-14.5% (FY16)** and **31.3% (FY14)**. The volatile nature of NSE's income is of course driven by the underlying volatile nature of the transition levy that forms approximately **70%** of operating income. The increase in fixed cost for the Nairobi bourse means that fixed cost leverage is now in full effect. The fixed costs will most likely increase the volatility of the bottom-line. The fixed cost leverage will lead to some dramatic declines in EPS during limited market activity but show great recovery in the good times. Our expectation of diminished investments into the valuable equity asset translates to in the **HOLD** recommendation even though we expect the negative spread between revenue growth and expenses growth normalizing.

Figure 2.5: Operating Income growth vs Administrative Expenses



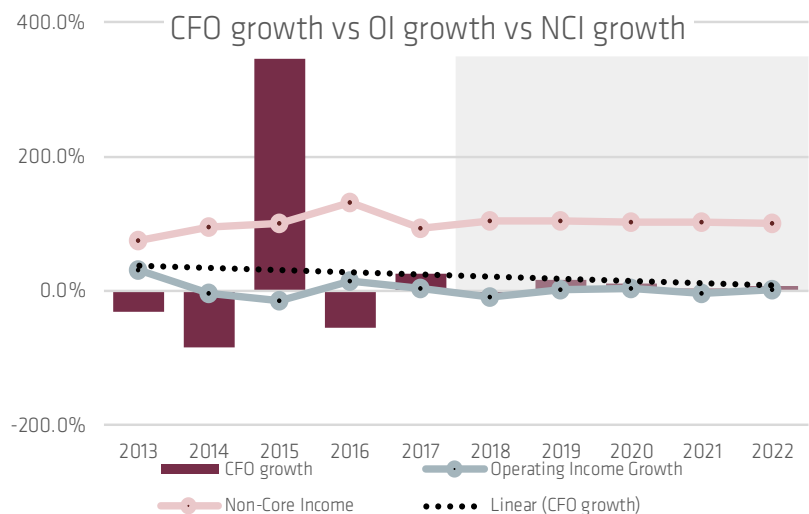
Source: NSE Financial statement, AIB Capital

» **Poor market sentiments will likely to continue to hurt the small-capitalization (Small Cap) companies (Companies worthless USD 10.0Bn or USD 10,000Mn) in the medium term.**

The market is emerging from a tough **FY16** and **FY17** earnings season where companies reported a general decline in earnings. The earnings disappointments have now shaped the equity market ecosystem, with only the price of perennial out-performers like Safaricom remaining resilient. In contrast to Safaricom most companies have experienced selling pressures. The banking sector, insurance sector, cement sector and manufacturing sector have all taken huge discounts to their previous valuations. The companies in the sector reported earnings that were lower than investors had envisioned during the period. NSE falls under the same category of earnings under-performers who lost their market capitalisation.

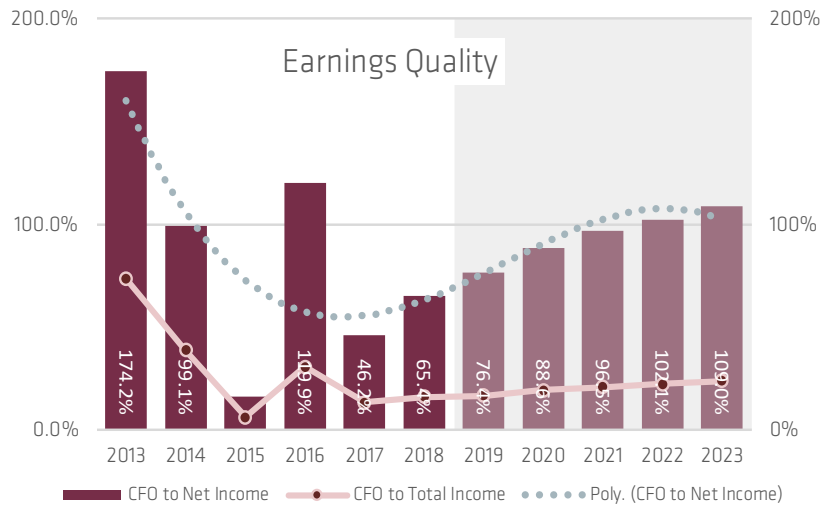
The most disconcerting of NSE's performance is the decline of earnings quality from **FY13**. The company's Cash Flow from Operations has been in secular decline since **FY13**. CFO has been on the decline in-lock step with total income. The quality of core earnings has also been in decline in **FY13** as the decline in transaction levy has tapered the growth of income from operations. The non-core incomes have shown greater resilience during the period under review diluting the quality of CFO. We, however, project a slight improvement of earnings quality in the medium term but not significant enough to endear NSE to investors.

Figure 2.6: CFO growth vs Operating Income growth VS NCI growth



Source: NSE Financial statement, AIB Capital

Figure 2.7: Earnings Quality: CFO to Net Income



Source: NSE Financial statement, AIB Capital

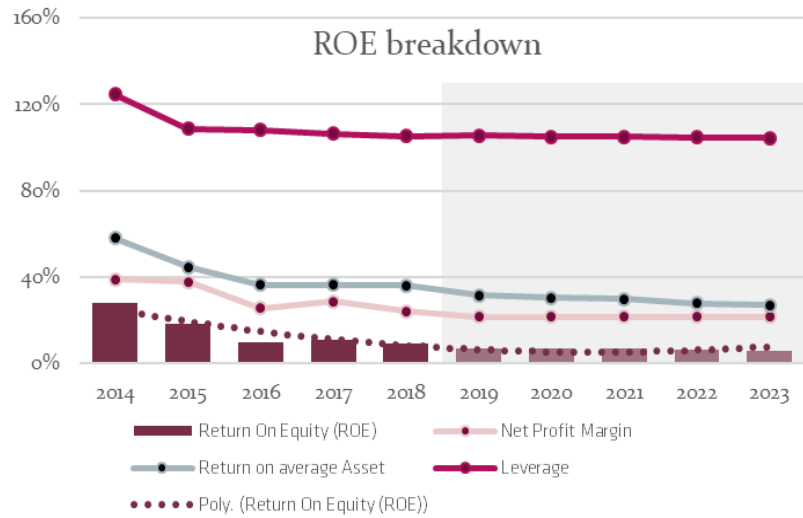
» **NSE's declining Cash Flow Operations will be a tough sell during a time when the market demands quality:**

The market is smarting from a tough **FY16** and **FY17** a period that saw earnings drop off and a changing expectation of growth continue to test the equity valuations. The subsequent equity performance forced the market to take a risk-off approach with institutional investors reducing their exposures to equity but increasing their fixed income exposure. The current risk-off approach to asset class allocation has filtered out to company-specific investment allocation. That has meant that market liquidity and market activity has shifted to Big Capitalization (Big Cap) due to their consistent performance and attractive fundamentals. We believe that those investors with the risk appetite and investment horizon to invest in equities at the current environment are likely to stick with the more liquid and more resilient Big Cap Companies. NSE with a Market Capitalization of **USD 26.4Mn** will be left at the back burner unable to compete with companies with stronger fundamentals.

» **Return On Equity now has fallen to single digits in FY18 and current tough market conditions are likely to keep it low in the medium term.**

The Nairobi Securities Exchange Ltd may be trading below fundamentals but the pricing could be the market pricing in its current low returns. On a ROA and ROE basis, the counter has been posting a general decline in returns. A decline in net income and the decline of the Return On Asset since FY13 has seen the group post a slowdown in ROE. At the current ROE of **9.3%**, the group can't cover our estimated cost of Equity (CAPM) of **14.6%**. NSE's **FY18 ROA of 8.81%** compares favourably to the global median ROA of **5.96%** but still fell short of our estimated Weighted Average Cost of Capital (WACC) of **13.8%**. The ROE of **9.3%** also looks pale in comparison to **regional SSA Peers**, Nigerian Stock Exchange and Johannesburg Stock Exchange who currently have the ROE of **17.8%** and **23.8%** respectively.

Figure 2.8: ROE breakdown.



Source: NSE Financial statement, AIB Capital

NAIROBI SECURITIES EXCHANGE:

Valuation & Price Target

(Discounted Cashflow & Relative Valuation)

The Nairobi Securities Exchange price target of **KES 11.74** was computed using an average of **DCF** and a **blended relative value** approach. We felt that **DCF** was able to capture our assumptions about NSE's probable future performance. At the same time **DCF** can utilize the relatively stable cash-generating nature of exchanges to come up with fair value. Our second approach to estimating implied fair value used relative valuation. The final relative valuation implied fair value was a blend of **EV/EBITDA** and **P/E**. The use of **P/E** to value the companies can be justified by the fact that the exchange industry earnings and free cash flow tend to be fairly predictable with a fairly strong degree of confidence.

Table 2.3: WACC Assumptions.

NSE VALUATION MODEL	
Weighted Average Cost of Capital (WACC)	
Risk-free rate	11.75%
Beta	0.64
Market Risk Premium	5.00%
Cost of Equity	14.9%
Cost of Debt	16.7%
Tax Rate	30%
The after-tax cost of debt	11.7%
Weight of Debt	70%
Weight of Equity	30%
WACC	13.8%

Source: AIB Capital Valuation model

Table 2.4: DCF Assumptions.

NSE VALUATION MODEL	
Discounted Cashflow (DCF) Assumptions	
Weighted Average Cost of Capital	14.0%
Tax Rates	30%
Terminal growth rate	4%
Value Date	06/09/2019

Source: AIB Capital Valuation model

Table 2.5: DCF Valuation

NSE VALUATION MODEL					
DCF Methodology					
	31-Dec-2019	31-Dec-2020	31-Dec-2021	31-Dec-2022	31-Dec-2023
EBIT	181,854	176,835	174,650	170,088	171,268
EBIT(1-Tax)	127,298	123,785	122,255	119,061	119,888
Add Depreciation	24,664	28,703	33,402	38,871	45,235
Add Amortization	18,113	20,061	22,220	24,611	27,259
Less Investment in Working Capital	(8,033)	(147)	(64)	(133)	34
Less Capital Expenditure	(68,085)	(74,898)	(82,415)	(90,712)	(99,871)
FCFF	275,812	274,339	270,048	261,786	263,814
Terminal Value					2,749,226
FCFF + Terminal Value	275,812	274,339	270,048	261,786	3,013,040
Time (T)	0.32	1.32	2.32	3.32	4.32
PV Period	0.96	0.84	0.74	0.65	0.57
PV of FCFF	264,577	230,805	199,328	169,530	1,711,897
Cummulative PV	2,576,138				
Add Cash	228,564				
Less Debt	-				
Enterprise Value	2,804,702				
Number of shares	259,501				
Fair Value per share	10.81				

Source: AIB Capital Valuation model

Table 2.6: Blended Relative Valuation

NSE VALUATION MODEL				
Relative Valuation				
EV/EBITDA	KES '000			
Global Industry EV/EBITDA multiple	15.60			
FY 2019 EBITDA	243,643			
Entreprise Value	3,801,197			
Less Debt	-			
Add Cash	228,564			
Implied Market Capitalization	4,029,761			
No of Shares	259,501			
Implied Value per share	15.53			
P/E				
Global Industry P/E multiple	22.74			
FY 2019 EPS	0.54			
Implied Fair Value per share	12.32			
Blended Relative Valuation				
Methodology	Weight	Implied Price	Weighted Average	
EV/EBITDA	50.0%	15.53	7.76	
P/E	50.0%	12.32	6.16	
Implied Blended - Fair Value per share			13.92	

Source: AIB Capital Valuation model

Table 2.7: Target Price

NSE VALUATION MODEL				
Target Price (Blend of DCF & Relative Value)				
Methodology	Weight	Implied Price	Weighted Average	
DCF	70.0%	10.81	7.57	
Blended Relative Valuation	30.0%	13.92	4.18	
Implied Blended - Value per share			11.74	
Recommendation				
Current Share Price	10.40			
Upside/ (Downside)	12.9%			
Dividend Yield	2.60%			
Total Potential return	15.5%			

NAIROBI SECURITIES EXCHANGE:

Global Peers

The NSE is currently within the lower half of its peers in terms of profitability. The **global median EBITDA margin and Net Profit margins** currently stand at **54.65%** and **36.95%** respectively. **NSE's EBITDA margin and Net margins** are not as competitive as its peers with the current peers standing at **35.3%** and **24.4%** respectively.

Table 2.8: Global Peers

COMPARABLES										
NAME	EV / EBIT Adj	ROA:Y	P/E	EV/EBITDA	P/B:Y	P/S:Y	PM:Y	EBITDA to Net Sales:Y	P/CF:Y	FCF Margin
ICE	23.28	2.32	27.40	18.78	2.49	8.70	39.93	63.65	17.10	45.25
CME GROUP	29.32	2.56	35.62	28.18	2.59	14.94	45.53	66.28	26.39	53.93
DEUTSCHE BOERSE AG	19.45	0.56	26.59	17.82	3.98	7.07	30.02	52.45	17.25	38.59
HONG KONG EXCHANGES	18.71	3.25	32.55	18.12	6.96	19.75	65.34	82.37	29.63	60.61
LONDON STOCK EXCHANGE	31.07	0.06	49.54	22.30	4.24	6.60	22.48	48.99	19.53	31.48
NASDAQ INC	17.59	2.95	20.72	15.87	2.47	5.34	18.13	49.01	13.12	36.30
B3 SA-BRASIL BOLSA BALCAO	26.74	5.55	37.44	22.34	2.19	11.34	43.20	69.19	14.94	72.92
CBOE GLOBAL MARKETS INC	23.26	8.06	31.51	17.84	3.37	8.99	35.05	66.02	20.46	40.96
JAPAN EXCHANGE GROUP INC	11.56	0.10	18.06	10.24	3.71	8.73	40.50	65.59	20.03	40.15
EURONEXT NV		16.21	22.93	16.38	4.45	5.69	35.11	54.11	14.98	36.22
SINGAPORE EXCHANGE LTD	17.63	18.42	22.55	15.52	7.77	9.32	42.99	57.54	19.68	42.14
TMX GROUP LTD	19.14	1.00	24.48	16.45	1.17	4.82	35.00	53.76	12.80	30.44
BOLSAS Y MERCADOS ESPANOLAS	9.99	0.73	15.28	8.72	5.06	6.62	44.34	60.23	15.57	41.50
BOLSAS Y MERCADOS ARGENTINOS	1.08	6.56	10.92	0.35	3.10	4.15	26.65	78.90	5.27	78.37
BOLSA MEXICANA DE VALORES SA	10.28	18.50	15.56	9.36	3.01	5.60	38.78	55.20	11.33	48.50
JSE LTD		2.24	14.09	(27.70)	3.62	6.45	41.10	48.59	15.52	37.39
GRUPO FINANCIERO VALORES		6.79	5.03	(3.03)	2.11	1.53	33.51	70.78	0.46	423.10
BURSA MALAYSIA BHD	14.05	9.62	26.14	10.93	6.31	10.55	42.81	58.86	22.90	43.59
WARSAW STOCK EXCHANGE	7.18	15.54	11.40	5.47	1.73	4.44	52.97	58.24	11.56	34.65
BOLSA DE VALORES DE COLOMBIA	13.29	6.37	19.36	9.32	1.52	3.16	17.10	29.58	21.86	12.83
NZX LTD	17.10	6.45	25.97	12.18	4.32	4.03	17.22	40.73	11.31	33.92
DUBAI FINANCIAL MARKET		1.33	59.76	60.91	0.82	31.31	61.73	32.16	18.20	156.72
BOLSA DE COMERCIO DE SANTIAGO	13.79	12.18	19.30	9.24	3.96	6.47	30.47	43.92	26.38	18.97
PHILIPPINE STOCK EXCHANGE IN		23.23	15.99	15.68	6.12	9.25	45.55	59.02	33.72	18.64
MULTI COMMODITY EXCH INDIA	40.96	7.24	30.97	33.76	3.29	13.67	48.74	31.32	22.36	48.20
BURSA DE VALORI BUCURESTI SA	28.78	4.67	35.06	11.17	1.53	4.24	24.48	28.02	13.22	27.51
NAIROBI SECURITIES EXCHANGE	35.11	8.81	14.56	22.47	1.32	6.03	30.45	16.44	20.28	23.21
BULGARIA STOCK EXCHANGE-		1.89	9.91	(214.32)	3.25	14.93	9.05	5.60	133.80	10.80
MEDIAN		5.96	22.74	15.60	3.27	6.61	36.95	54.65	17.73	

Source: AIB Capital Valuation model

NAIROBI SECURITIES EXCHANGE:

Key Risks to our investment thesis:

The key risks to our investment thesis remain. We single out the following risks that could cause us to change our **HOLD** recommendation:

» **The Fed could slash the FED rate faster than we anticipated poses upward risks to our thesis:**

The Federal Reserve has slashed the Fed rate once in **2019**. They termed the slash as a mid-cycle adjustment. The Fed has now trimmed the target range of the federal fund rate by **25 basis points** to between **2%** and **2.25%**. The slash may have been expected by the market but still remains a sharp reversal from the position it held at the end of **December 2018**. At the end of last year, the Federal Reserve was expected to continue to hike rates in **2019**. The US economy now appears to be losing momentum in **2019**. The **US Q2 GDP** slowed to **2.1%** from **3.1%** in Q1. Any faster than expected loosening up of the current global financing conditions may drive up the transaction revenue faster than we projected. The positive development is likely to lead to an earnings surprise that may drive the price towards its fundamental value.

» **A faster than expected adoption & development of the NSE's derivatives market.**

The mass adoption of the derivatives market on the NSE may lead to a better than expected outcome. The derivative products have yet to be factored in at the current juncture because its adoption remains premature. We have seen the early adopters take to the product but uncertainty about the mass investor's appetite for derivatives remains to be seen. Any early kick-off and success in the medium term would likely bias the earnings of the fixed cost levered NSE upwards.

» **A faster than expected change in investor risk appetites/ sentiments.**

We currently have a conservative expectation of a slow recovery of investor sentiments to equities. Any souring or lifting of negative investor sentiments towards Kenyan equities in the medium term, may affect our expected outcomes. The equities market performance still holds a very influential impact on the profitability of NSE. So any strong directional changes in assets allocation into equities may render our HOLD recommendation mute.

» **Regulatory risks remain something to watch out for.**

NSE is a highly regulated exchange like most of its peers. The company must adhere to strict Capital Market regulation and still remain agile to respond to emerging opportunity and threats within its industry. On top of its legal obligation, it is mandated as a Self-Regulatory Organization to continue to monitor, supervise and regulate market players. Any failure by the NSE to achieve or carry out its regulated functions diligently would lead to sanctions or loss of trust. The company is also vulnerable to disruption from a possible liberalisation of Kenyan Capital Markets that would lead to the loss of its monopoly.

» **Technology.**

Exchanges remain very dependent on technology to carry out their core functions and remain competitive in a fast-evolving market. The Nairobi Securities Exchange is therefore subject to failure of its technology to operate as designed and must absorb costs associated with that. To also meet the needs of investors and other market participants, the company may be forced to continually invest in technologies in the future at a cost to its shareholders. Investment in technology may also bring about positive change to NSE's cost structure and make it more efficient than our current IOC assumptions.

» **NSE at the current valuation remains a prime candidate for acquisition at the current attractive P/B.**

The current accommodative monetary policy has kept financing cheap. The affordable cost of debt has really inspired buyouts and mergers around the world. The recent trend of consolidation of exchanges around the world may shift to Africa. There is a remote possibility of a global player or regional player attempting to merge or acquire NSE. The NSE would provide the potential acquirer an unrivaled access to the Kenya Capital Markets. The access could then be monetised by offering their clients with a Pan-American focus NSE products. Any offer is likely to be a strong catalyst that will drive the price of NSE towards our Target Price by diluting any uncertainty around the counter.

Income Statement

Income Statement (KES 000)	2016	2017	2018	2019F	2020F	2021F
Operating Income	527,164	607,438	626,191	491,010	478,811	475,284
Interest Income	94,766	98,569	116,341	110,555	105,057	100,879
Other Income	95,255	46,711	39,605	39,605	39,605	39,605
Total Income	717,185	752,718	782,137	641,169	623,473	615,768
Administrative Expenses	(487,291)	(495,856)	(560,300)	(459,315)	(446,638)	(441,118)
Share of Profit of Associate	3,221	12,324	19,012	19,012	19,012	19,012
Profit Before Taxation	233,115	269,186	240,849	200,866	195,847	193,662
Taxation Charge	(49,159)	(52,936)	(50,171)	(60,260)	(58,754)	(58,099)
Profit of the Year	183,956	216,250	190,678	140,606	137,093	135,563

Balance sheet Statement

Balance Sheet (KES 000)	2016	2017	2018	2019F	2020F	2021F
Property and Equipment	184,164	229,635	228,942	247,553	267,059	287,362
Investment Property	313,474	300,603	309,882	319,161	328,440	337,719
Intangible Assets	168,084	152,729	159,257	165,954	172,582	179,072
Investment in Associate Company	99,134	111,374	127,581	143,500	159,033	174,190
Government Securities	96,490	93,104	91,643	91,643	91,643	91,643
Deferred Taxation Asset	-	-	5,688	5,688	5,688	5,688
Long-term Restricted Investments	143,204	148,391	156,521	156,521	156,521	156,521
Non-Current Assets	1,004,550	1,035,836	1,079,514	1,130,020	1,180,966	1,232,195
Trade and other Receivables	70,921	92,346	80,526	71,241	69,275	68,419
Bank and Cash balances	479,359	156,030	228,564	256,137	287,642	320,013
Tax Recoverable	48,170	22,435	27,049	27,049	27,049	27,049
Short-term Restricted Investments	292,505	302,015	338,202	338,202	338,202	338,202
Corporate Bonds	15,281	-	-	-	-	-
Government Securities	102,959	237,515	-	-	-	-
Fixed Deposits	-	262,043	464,533	464,533	464,533	464,533
Current Assets	1,009,195	1,072,384	1,138,874	1,157,162	1,186,701	1,218,215
Total Assets	2,013,745	2,108,220	2,218,388	2,287,182	2,367,667	2,450,410
Share Capital	1,038,003	1,038,003	1,038,003	1,038,003	1,038,003	1,038,003
Share Premium	277,185	277,185	277,185	277,185	277,185	277,185
Retained Earnings	547,852	694,049	781,224	867,335	949,933	1,033,596
Other Reserves	(475)	(559)	(664)	(664)	(664)	(664)
Revaluation Reserve	580	3,208	-	-	-	-
Shareholders Funds	1,863,145	2,011,886	2,095,748	2,181,859	2,264,457	2,348,120
Borrowings	-	-	-	-	-	-
Deferred Tax Liability	5,631	3,496	-	-	-	-
Tenant Deposits	7,273	3,830	2,711	2,711	2,711	2,711
Non-Current Liabilities	12,904	7,326	2,711	2,711	2,711	2,711
Borrowings	-	-	-	-	-	-
Trade and other Payables	119,218	66,939	93,870	76,552	74,440	73,520
Dividends payable	16,278	19,869	23,859	23,859	23,859	23,859
Tax Payable	-	-	-	-	-	-
Investor Protection Fund	2,200	2,200	2,200	2,200	2,200	2,200
Current Liabilities	137,696	89,008	119,929	102,611	100,499	99,579
Total Shareholders' Funds and Liabilities	2,013,745	2,108,220	2,218,388	2,287,182	2,367,667	2,450,410

RESEARCH DISCLOSURE

Though utmost care has been taken in the preparation of this report, we do not guarantee the accuracy or completeness of the information contained herein nor will AIB Capital Ltd be held liable for the information contained herein.

The views expressed in this report are solely those of the Research Department and are subject to change without notice.

The information in this report is not an offer for the sale or purchase of any security. This document should only be considered a single factor used by investors in making their investment decisions.

This publication may not be distributed to the public media or quoted or used by the public media without prior and express written consent of AIB Capital Ltd.

NOTICE TO US INVESTORS

This report was prepared, approved, published and distributed by AIB Capital Limited Company located outside of the United States (a non-US Group Company"). This report is distributed in the U.S. by LXM LLP USA, a U.S. registered broker-dealer, on behalf of AIB Capital Limited only to major U.S. institutional investors (as defined in Rule 15a-6 under the

U.S. Securities Exchange Act of 1934 (the "Exchange Act")) pursuant to the exemption in Rule 15a-6 and any transaction effected by a U.S. customer in the securities described in this report must be effected through LXM LLP USA.

Neither the report nor any analyst who prepared or approved the report is subject to U.S. legal requirements or the Financial Industry Regulatory Authority, Inc. ("FINRA") or other regulatory requirements pertaining to research reports or research analysts. No non-US Group Company is registered as a broker-dealer under the Exchange Act or is a member of the Financial Industry Regulatory Authority, Inc. or any other U.S. self-regulatory organization.

Analyst Certification. Each of the analysts identified in this report certifies, with respect to the companies or securities that the individual analyses, that (1) the views expressed in this report reflect his or her personal views about all of the subject companies and securities and (2) no part of his or her compensation was, is or will be directly or indirectly dependent on the specific recommendations or views expressed in this report. Please bear in mind that (i) AIB Capital Limited is the employer of the research analysts responsible for the content of this report and (ii) research analysts preparing this report are resident outside the United States and are not associated persons of any US regulated broker-dealer and that therefore the analysts are not subject to supervision by a US broker-dealer, and are not required to satisfy the regulatory licensing requirements of FINRA or required to otherwise comply with US rules or regulations regarding, among other things, communications with a subject company, public appearances and trading securities held by a research analyst account.

Important US Regulatory Disclosures on Subject Companies. This material was produced by Analysis AIB Capital Limited solely for information purposes and for the use of the recipient. It is not to be reproduced under any circumstances and is not to be copied or made available to any person other than the recipient. It is distributed in the United States of America by LXM LLP USA and elsewhere in the world by AIB Capital Limited or an authorized affiliate of AIB Capital Limited. This document does not constitute an offer of, or an invitation by or on behalf of AIB Capital or its affiliates or any other company to any person, to buy or sell any security. The information contained herein has been obtained from published information and other sources, which AIB Capital Limited or its Affiliates consider to be reliable. None of AIB Capital Limited accepts any liability or responsibility whatsoever for the accuracy or completeness of any such information.

All estimates, expressions of opinion and other subjective judgments contained herein are made as of the date of this document. Emerging securities markets may be subject to risks significantly higher than more established markets. In particular, the political and economic environment, company practices and market prices and volumes may be subject to significant variations. The ability to assess such risks may also be limited due to significantly lower information quantity and quality. By accepting this document, you agree to be bound by all the foregoing provisions.

LXM LLP USA assumes responsibility for the research reports content in regards to research distributed in the U.S. LXM LLP USA or its affiliates has not managed or co-managed a public offering of securities for the subject company in the past 12 months, has not received compensation for investment banking services from the subject company in the past 12 months, does not expect to receive and does not intend to seek compensation for investment banking services from the subject company in the next 3 months. LXM LLP USA has never owned any class of equity securities of the subject company. There are not any other actual, material conflicts of interest of LXM LLP USA at the time of the publication of this research report. As of the publication of this report LXM LLP USA, does not make a market in the subject securities.