EXCHANGE TRADED FUNDS WORKSHOP 2016

STOCK EXCHANGE HOUSE
2/4 CUSTOMS STREET
LAGOS ISLAND.

NOVEMBER 7, 2016
9:00 a.m. - 2:30 p.m.

In partnership with: Stanbic IBTC Asset Management, Lotus Capital, VETIVA
NSE EXCHANGE TRADED FUNDS WORKSHOP 2016

THE ROLE AND EVOLUTION OF INDEXES

Gareth Allison
Executive Director
MSCI Sub-Saharan Africa
November 7 2016
Overview

- Index Evolution & Best Practice
- The Changing Face of Markets
- The MSCI Approach
- Why NSE/MSCI Partnership?
- Q&A
INDEX EVOLUTION & BEST PRACTICE
WHAT ARE INDEXES USED FOR?

1. **Policy benchmarks**
   - Indexes serve as benchmarks for the relevant investment universe

2. **Accurate gauge of “the market” and various asset classes**
   - Statistics provide a useful gauge of markets and their economic outlook
   - Performance, fundamental & valuation ratios

3. **Performance measurement**
   - Measurement of a security’s or fund’s performance vs “the market”
   - Measurement is only possible relative to an objective reference point and frame of reference
   - Performance attribution to identify and explain the sources of over or under-performance
   - Identify under/over-performing funds, asset managers, internally or external portfolio managers
   - Indices can serve as the basis for fee-based performance fees

4. **Assist with asset allocation and (equity) portfolio construction**
   - Determine asset allocation – indices provide “building blocks” and define the opportunity set
   - Provides a universe of securities for analysis purposes, or stock picking
   - Historical data to back-test effectiveness of different investment approaches

4. **Basis for indexed investment products**
   - Passive funds, ETFs, ETNs,
   - Futures contracts, structured products
**WHAT MAKES A GOOD INDEX?**

MSCI continuously consults with clients on index changes of potential impact to ensure relevance and adoption. Examples of such consultations include:

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>HOW</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Completeness</td>
<td>Broad exposure to asset classes, and broad within a given asset class</td>
</tr>
<tr>
<td>2. Investability and replicability</td>
<td>Ease of access to underlying securities in an index, taking into account investment restrictions and liquidity</td>
</tr>
<tr>
<td>4. Accuracy and completeness of data</td>
<td>Availability of historical data. Daily price, net, total return indices; reliable data, timely release of data and index changes.</td>
</tr>
<tr>
<td>5. Acceptance by investors</td>
<td>Implies understanding clients needs through regular interaction</td>
</tr>
<tr>
<td>6. Crossing opportunities, availability of (cheap and liquid) derivatives</td>
<td>For hedging, securitization, transitions in portfolio</td>
</tr>
<tr>
<td>7. Low turnover, transaction costs</td>
<td>To lower transaction costs, the index needs strong rules to reduce turnover</td>
</tr>
</tbody>
</table>

Source: Northern Trust
**Building Effective Benchmarks**

Benchmarks are a subset of the broader and looser world of indexes, and are usually designed to be investable.

### Benchmark Objectives

- **Accurate and objective**
- **Replicable and investible**
- **Fair to all investors**
- **Current and reliable**
- **Cost effective**

<table>
<thead>
<tr>
<th>Robust Governance</th>
<th>Advanced Methodology and Quality Data</th>
<th>High Transparency</th>
<th>Continuous Innovation</th>
<th>Broad Consultation and Superior Client Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Developing a proper committee structure, quality assurance, and other aspects of governance that are not only designed to ensure high benchmark quality but also independence from inappropriate investor influence.</td>
<td>Benchmark indexes should be defined, constructed and maintained with the objective of reflecting, in a timely, consistent and cost-effective manner, the evolution of the underlying investment universe.</td>
<td>Benchmark, its governance and its methodology are all established, documented, predictable and clear.</td>
<td>Commitment to improvement, both for currently provided indices and for developing new benchmarks that reflect fundamental market and investment developments.</td>
<td>Broad consultation and client service facilitate accountability and they allow investors to understand potential benchmark improvements so that there is no ad-hoc rebalancing or stealth methodology changes.</td>
</tr>
</tbody>
</table>
THE CHANGING FACE OF MARKETS
HOW HAVE STOCK MARKETS EVOLVED?

Indexes with Forced Numbers of Stocks may not reflect the complete opportunity set

- **1792**: 5 Securities traded
- **1908**: NYSE Founded
- **1929**: Black Tuesday
- **2005**: NYSE Merges with Archipelago Ticker: NYX
- **2007**: NYSE Merges with Euronext
- **2014**: Over 8000 stocks traded today

NYSE Over 130 Years

- NYSE
- DJIA 30
- S&P 500
- Russell 3000
- Wilshire 5000

Number of stocks

- 1792
- 1884
- 1957
- 1974
- 1984
- 2014

2014: Over 8000 stocks traded today

2007: NYSE Merges with Euronext

2005: NYSE Merges with Archipelago Ticker: NYX

1929: Black Tuesday

1908: NYSE Founded

1792: 5 Securities traded
HOW HAVE INDEXES EVOLVED?

The world today is now more global – with changing and challenging choices

What is a modern benchmark?

- DJIA 30
- S&P 500
- FTSE 100 (supersedes FT 30)
- FTSE 250
- DAX 30 & CAC 40
- Euro Stoxx 50

Launch dates:
- 1884
- 1935
- 1957
- 1984
- 1987
- 1992
- 1998
• Ability to access a market is not consistent for local investors versus international investors

• Ability to access a market is not consistent for retail investors versus institutional investors
CHANGES IN APPROACHES TO INVESTING

1970s  
- Portfolio Return

1980s  
- Alpha
  - Beta

2000s  
- Alpha
  - Factor Beta
    - Regional Beta
      - Country Beta
        - Sector Beta

Factors:
- Low Size
- Value
- Quality
- Momentum
- Yield
- Low Volatility
The MSCI Standalone Market Indexes are not included in the MSCI Emerging Markets Index or MSCI Frontier Markets Index. However, these indexes use either the Emerging Markets or the Frontier Markets methodological criteria concerning size and liquidity.

The West African Economic and Monetary Union (WAEMU) consists of the following countries: Benin, Burkina Faso, Ivory Coast, Guinea-Bissau, Mali, Niger, Senegal and Togo. Currently the MSCI WAEMU Indexes include securities classified in Senegal, Ivory Coast and Burkina Faso.
Capture broad market beta through passive replication of cap weighted indexes

Passive implementation through replication of investment strategies:
- Strategy, Thematic, ESG or Custom

Capture alpha via asset allocation, stock selection and market timing

DEVELOP CONSISTENT BUILDING BLOCKS FOR INVESTOR NEEDS
MSCI INDEX FAMILIES

MSCI Country & Regional Indices
- All Country (DM+EM)
- Developed Markets (DM)
- Emerging Markets (EM)
- Frontier Markets (FM)
- Domestic
  - US
  - China
  - Australia
- Tradable
  - Asia APEX
  - EM 50
  - FM 100

MSCI Size Indices
- Large Cap
- Mid Cap
- Standard (Large + Mid)
- Small Cap
- SMID (Small + Mid)
- IMI (Large+ Mid + Small)
- Micro Cap (DM Only)
- All Cap (DM Only)

MSCI Style Indices
- Value
- Growth
- Sector
- Industry
- Sub-industry
- Real Estate

MSCI Sector Indices
- Commodity Producers
- Agriculture & Food Chain
- Infrastructure
- Faith-Based
  - Catholic
  - Islamic
- Economic Exposure

MSCI Thematic Indices
- Best-in-Class
- Socially Responsible
- Ex-Controversial Weapons
- Environmental

MSCI ESG Indices
- Economic Exposure Data

MSCI Strategy Indices
- Risk Premia
  - Value Weighted
  - Risk Weighted
  - Equal Weighted
  - GDP Weighted
  - Minimum Volatility
  - Factor
  - High Div Yield
  - Risk Control
  - Quality
  - Momentum
  - Quality Mix
- Capped
  - 10/40
  - 25/50
  - Standard Capped
- Hedged & Currency
  - Hedged
  - FX Hedged
  - Global Currency
- Short & Leveraged (Daily)

Custom Indices
- Equity Screening
- Custom Weighting
- Custom Currencies and Tax Rates
- Custom Delivery and File Format
MSCI ACWI FM Indexes offer a building block approach with a rules-based, consistent and transparent methodology.

This robust foundation allows investors to measure exposure to all sources of equity returns using a single global framework.

MSCI Nigeria is part of a single, modern seamless global benchmark solution.
Global stocks markets are increasingly connected

Investors looking for diversification and alternative sources of alpha

Correlations represent 36mth return correlations between MSCI World Index and the 4 main indexes mentioned.
• Nigeria has low correlation to global markets

• Decreasing correlation offers diversification benefits
THE MSCI APPROACH
To address the variety of investment use cases for indexes, MSCI has constructed a set of industry-leading, branded indexes that:

- Represent the relevant investment opportunity set
  - Comprehensive range of benchmarks across regions, countries and sectors
- Measure precisely the performance of the segment or style they track
  - Timely reflection of corporate events
  - Regular index reviews
  - Robust value and growth style methodology
  - Country eligibility criteria
  - Extensive history
- Are replicable and consistent
  - Transparent index construction and maintenance methodologies
  - Investability screens (Free Float adjustment, minimum size, liquidity)
  - Leading industry classification (GICS®)
  - Index turnover management
MSCI INDEX PROCESS

MSCI regularly assesses market developments and trends to assure the quality and usability of its indexes.

- **Strong Understanding of the Investment Process**
  - Market Feedback
  - Client Consultations
  - Editorial Advisory Board

- **Formal Integrity**
  - Independent Index Committees
  - Research

- **Unique Methodology**
  - Representative
  - Transparent
  - Consistent
  - Investable
The MSCI Classification Framework places a high degree of emphasis on market accessibility criteria particularly for Developed and Emerging Markets classification.

### Criteria

**A. Economic Development**

- **A.1 Sustainability of economic development**
  - No requirement

**B. Size and Liquidity Requirements**

- **B.1 Number of companies meeting the following Standard Index criteria**
  - **Company size (full market cap)**
    - USD 635 mm
    - USD 47 mm
  - **Security size (float market cap)**
    - USD 635 mm
  - **Security liquidity**
    - 2.5% ATVR
  - **Frontier**
    - 2
  - **Emerging**
    - 3
    - USD 1269 mm
    - 15% ATVR
  - **Developed**
    - 5
    - USD 2538 mm
    - 20% ATVR

**C. Market Accessibility Criteria**

- **C.1 Openness to foreign ownership**
- **C.2 Ease of capital inflows / outflows**
- **C.3 Efficiency of the operational framework**
- **C.4 Competitive landscape**
- **C.5 Stability of the institutional framework**

  - **Frontier**
    - At least some
    - At least partial
    - Modest
    - High
    - Modest
  - **Emerging**
    - Significant
    - Significant
    - Good and tested
    - High
    - Modest
  - **Developed**
    - Very high
    - Very high
    - Very high
    - Unrestricted
    - Very high

*High income threshold for 2015: GNI per capita of USD 12,736 (World Bank, Atlas method)*

**Minimum in use for the May 2016 Semi-Annual Index Review, updated on a semi-annual basis**
The total listed equity securities do not always represent the available equity opportunity set.

The available equity opportunity set does not always represent what an equity market index is.

To reflect these different investor sets, MSCI employs a range of methods to carve out the actual equity market index constituents.
Multiple investability screens ensure that the index represents the investable opportunity set for international institutional investors.

**Investable Equity Universe**

- **Equity Minimum Size Requirement**
  (USD 207 million as of May’15 Semi-Annual Index Review)

- **Equity Universe Minimum Float Adjusted Market Cap. Requirement**
  (50% of Equity Minimum Size)

- **Minimum Liquidity Requirements**
  - **DM:** (ATVR => 20%–3 and 12 Month, 90% 3-month Frequency of trading)
  - **EM:** (ATVR => 15%–3 and 12 Month, 80% 3-month Frequency of trading)

- **Minimum Foreign Inclusion Factor**
  (FIF equal to or greater than 0.15)

- **Minimum Length Of Trading Requirement**
  (At least 3 months except with IPO’s with company and float => 1.8 times standard cutoff post offering.)
**EQUITY INDEX MAINTENANCE**

**MAY SAIR**
- Additions/Deletions
- NOS/FIF changes
- Migrations

**FEB QIR**
- NOS/FIF changes
- Migrations

**AUG QIR**
- NOS/FIF changes
- Migrations

**NOV SAIR**
- Additions/Deletions
- NOS/FIF changes
- Migrations

**Semi-Annual Index Reviews (SAIRs) in May and November of the Size Segment Indexes:**
- Fully reassess size / style security classification
- Update Foreign Inclusion Factors (FIFs) and Number of Shares (NOS) for the whole equity universe

**Quarterly Index Reviews (QIRs) in February and August of the Size Segment Indexes:**
- Reflect only the most significant events such as large IPOs and postpone minor events until the SAIR (to minimize trading costs)
- Reflect the impact of significant market events on FIFs and update NOS.
- Ongoing Corporate Events:
  - On a daily basis
  - Implemented at the time of the event
Case 1:
- 1,000 shares in existence
- 600 held strategically
- 400 is available as Free Float

Case 2:
- 1,000 shares in existence
- Foreign Ownership Limit of 49% (490 shares max)
- No strategic holdings
- This translates to 490 shares of Free Float available to Foreign Investors

Case 3:
- 1,000 shares in existence
- Foreign Ownership Limit of 49% (490 shares max)
- Strategic holdings by Foreign Investors are 200 shares
- This translates to 290 shares of Free Float available to Foreign Investors
Substantial differences may exist, even for the same country/regional exposure

- **Intelligence** about local markets
- Length of **experience** of the indexer
- Countries’ **classification** & weights
- Market **coverage**
- **Accuracy** levels
- **Turnover** ratios

Differences can impact index:
- Exposure
- Performance
- Cost of replication
- ETF fees
- Fairness to fund managers

For example, a 10% increase in turnover could lead to a 5bp reduction in index performance
WHY MSCI/NSE PARTNERSHIP?
**NSE & MSCI – GOALS & STRATEGY**

**GOAL**

- Become Africa’s foremost securities exchange driven by regulation, efficiency, liquidity and innovation

**STRATEGY**

- Increase new listings across 5 asset classes
- Increase order flow across 5 asset classes
- Operate a fair and orderly market

**GOAL**

- Be the global leader in providing content, research and services to the institutional investment community to support their portfolio management, benchmarking and asset allocation investment processes

**STRATEGY**

- Capture globalization of asset flows
- Create index licensed products
- Develop new ways of investing
Combining MSCI’s expertise in index development, calculation and commercialization and MSCI’s internationally recognized brand and global sales & marketing capabilities with the Nigerian Stock Exchange’s position as the center of Africa’s largest economy and its ability to act as a catalyst of local capital markets and economic development MSCI and the Nigerian Stock Exchange will together work on developing a joint index business that will:

a. Play a positive role in increasing access to and participation in the market domestically, regionally and globally

b. Increase international recognition of and participation in the Nigerian equity market

c. Increase international asset flows into the Nigerian equity market

d. Further develop a domestic and offshore product ecosystem to be used as exposure and risk management tools by market participants

e. Promote liquidity development in the Nigerian equity market

f. Grow subscription and asset based fee index licensing revenue on the joint indexes
MSCI’S RECOGNITION AS THE INDEX LEADER AND INDUSTRY STANDARD

97 of top 100 global investment managers are MSCI clients

850+ ETFs are based on MSCI indexes, more than any other index provider

Over USD 10 trillion in assets are benchmarked to MSCI Indexes

180,000 Indexes calculated daily in real time

99.96% accuracy rate

94% of US pension fund assets invested in global equities are benchmarked to MSCI

Awards

Pensions Age 2016
Index Provider of the Year

Structured Retail Products Awards 2016
Best Propriety Index Provider of the Year

Hedgeweek Awards 2016
Best Global Index Provider of the Year

ETF Risk Rankings 2015
Index Provider of the Year 2015

Structured Products Awards 2015
Index Provider of the Year 2015

ETF.com 2014 (awarded in 2015)
Index Provider of the Year

European Pensions Awards 2015
Index Provider of the Year 2015

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1 Based on P&I report published in May 2016 and MSCI clients as of June 2016.

2 As of June 30, 2016; defined as each share class of an exchange traded fund, as identified by a separate Bloomberg ticker. Only primary listings, and not cross-listings, are counted.

3 As of December 31, 2015, as reported on March 31, 2016 by eVestment, Morningstar and Bloomberg.

4 Accuracy calculated based on the number of corrections performed over total number of securities or data points covered.

5 As of Dec 2015, according to Intersec LLC.
MSCI: THE INDEX-FAMILY OF CHOICE BY SIGNIFICANT ASSET OWNERS FOR POLICY BENCHMARKS

<table>
<thead>
<tr>
<th>Fund Name</th>
<th>Country</th>
<th>Benchmark used</th>
<th>Total AUM USD</th>
<th>Equity AUM USD</th>
<th>Is it public information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Florida State Board Administration</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>121</td>
<td>67</td>
<td>Yes</td>
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<tr>
<td>Teachers Retirement of Texas</td>
<td>USA</td>
<td>ACWI</td>
<td>80</td>
<td>45</td>
<td>Yes</td>
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<tr>
<td>Boeing</td>
<td>USA</td>
<td>ACWI</td>
<td>74</td>
<td>36</td>
<td>Yes</td>
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<tr>
<td>State of Wisconsin Investment Board</td>
<td>USA</td>
<td>ACWI</td>
<td>71</td>
<td>36</td>
<td>Yes</td>
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<td>Oregon Public Employees Retirement Fund</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>46</td>
<td>21</td>
<td>Yes</td>
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<tr>
<td>Massachusetts PRIM</td>
<td>USA</td>
<td>ACWI</td>
<td>43</td>
<td>23</td>
<td>Yes</td>
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<tr>
<td>Pennsylvania Public School Employees Retirement System</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>43</td>
<td>15</td>
<td>Yes</td>
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<tr>
<td>Virginia Retirement System</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>39</td>
<td>13</td>
<td>Yes</td>
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<tr>
<td>United Nations Joint Pension</td>
<td>USA</td>
<td>ACWI</td>
<td>37</td>
<td>23</td>
<td>Yes</td>
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<tr>
<td>Exxon Mobil</td>
<td>USA + other</td>
<td>ACWI IMI</td>
<td>28</td>
<td>9</td>
<td>Yes</td>
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<tr>
<td>PKA</td>
<td>Denmark</td>
<td>ACWI IMI (ESG exclusion)</td>
<td>22</td>
<td>11</td>
<td>Yes</td>
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<tr>
<td>Employees Retirement System of Texas</td>
<td>USA</td>
<td>ACWI</td>
<td>20</td>
<td>13</td>
<td>Yes</td>
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<tr>
<td>Lockheed Martin Corporation</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>20</td>
<td>5</td>
<td>Yes</td>
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<tr>
<td>3M</td>
<td>USA</td>
<td>ACWI</td>
<td>18</td>
<td>4</td>
<td>Yes</td>
</tr>
<tr>
<td>Indiana Public Retirement Systems</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>16</td>
<td>7</td>
<td>Yes</td>
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<tr>
<td>Stichting PGB (Dutch Printers)</td>
<td>Netherlands</td>
<td>ACWI IMI (ESG exclusion)</td>
<td>15</td>
<td>Na</td>
<td>Yes</td>
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<td>AP 7</td>
<td>Sweden</td>
<td>ACWI</td>
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<td>7</td>
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<tr>
<td>Church Commissioners</td>
<td>UK</td>
<td>ACWI</td>
<td>10</td>
<td>6</td>
<td>Yes</td>
</tr>
<tr>
<td>Missouri State Employees Retirement System</td>
<td>USA</td>
<td>ACWI IMI</td>
<td>9</td>
<td>3</td>
<td>Yes</td>
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<tr>
<td>Laerernes</td>
<td>Denmark</td>
<td>ACWI IMI - World GDP weighted</td>
<td>5.6</td>
<td>Na</td>
<td>Yes</td>
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<tr>
<td>Kapitalska Druzba</td>
<td>Slovenia</td>
<td>ACWI</td>
<td>3.5</td>
<td>50%</td>
<td>Yes</td>
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<tr>
<td>Oroshikikin Pension</td>
<td>Japan</td>
<td>ACWI</td>
<td>0.6</td>
<td>Na</td>
<td>Yes</td>
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<tr>
<td>Fonds de Compensation de la Securite Sociale</td>
<td>LUX</td>
<td>ACWI</td>
<td>10</td>
<td>3</td>
<td>Yes</td>
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<tr>
<td>Guardians of New Zealand Superannuation</td>
<td>NZ</td>
<td>ACWI ex EM SC</td>
<td>NZ$3</td>
<td>NZ$1.3</td>
<td>Yes</td>
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<tr>
<td>Government Pension Fund of Thailand</td>
<td>Thailand</td>
<td>ACWI</td>
<td>15</td>
<td>1.3-2</td>
<td>Yes</td>
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<tr>
<td>London Pension Fund Authority</td>
<td>UK</td>
<td>ACWI</td>
<td>5.8</td>
<td>Na</td>
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</tr>
</tbody>
</table>
LEADING INDEX PROVIDER TO THE ETF MARKET

Equity ETFs linked to MSCI indexes ranked #1 globally for Q2’16 in the following categories:

1. In net cash inflows linked to indexes with U.S. exposures
2. In net cash inflows linked to factor indexes
3. In assets linked to indexes with non-U.S. exposures
4. In assets linked to minimum volatility indexes
5. In number of equity ETFs

Data from Bloomberg as of June 30, 2016
ASSETS OF FUTURES & OPTIONS TRACKING MSCI INDEXES

• Average daily volume of MSCI index based listed derivatives in Q1 2016, +54% YoY at 248,290

• Open Interest of 1.98 million contracts, +50% YoY
  
  ▪ Total $ value traded in Q1 2016 was $595 billion, +26% YoY

Source: MSCI, ICE, EUREX, SGX, JSE and DGCX
PRODUCT

- MSCI/NSE Indexes will have a dedicated landing page on [www.msci.com](http://www.msci.com) with links also the [www.nse.com.ng](http://www.nse.com.ng)

  - Availability of information will include historical index level performance, methodology book, Index factsheets and client presentations
THANK YOU

Q&A
EXCHANGE TRADED FUNDS WORKSHOP 2016

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NOVEMBER 7, 2016
9:00 a.m. - 2:30 p.m.

In partnership with: Stanbic IBTC Asset Management, Lotus Capital, VETIVA
CONSTRUCTING SUCCESSFUL EXCHANGE-TRADED FUNDS (ETFS)

ETF Workshop 2016
Nigeria Stock Exchange

7 November 2016
CONTENTS

- What are ETFs and why are they attractive?
- What is needed to set them up?
- Advantages of ETFs, incl. Pricing
- How do you make ETFs easy to trade?
- ETFs in Africa
- Product development & the Future of ETFs in Nigeria
CONTENTS

- What are ETFs and why are they attractive?

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- Advantages of ETFs, incl. Pricing

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- ETFs in Africa

- Product development & the Future of ETFs in Nigeria
EXCHANGE TRADED FUND (ETF) DEFINED

- Listed (necessarily) index-tracking (usually) collective investment scheme (sometimes)
- Listed: Securities listed and traded like normal shares on the stock exchange
  - But give access to a portfolio of investments rather than a single security
  - Ensures real time prices during the trading day
  - Allows for buying and selling at market prices
- Index-tracking: Fund replicates the make up of the reference index
  - The ETF portfolio matches exactly the components and weightings of an index or asset (full replication, asset backed, not synthetically created)
  - Allows the investor to gain exposure to the diversified basket of securities with a single trade, or get access to investments that would otherwise not be possible (e.g. physical commodities)
- Collective Investment Scheme (CIS) / Mutual Fund (MF) / Unit Trust (UT):
  - Provides an investment vehicle through a known regulatory framework
  - The unit price represents the value of the underlying basket, per unit
  - The unit price changes intraday in line with the changes in the value of the underlying portfolio
WHAT IS AN ETF?

- Many ETFs are registered as Collective Investment Schemes / Mutual Funds
  - BUT: not all ETFs are CISs! (and later we’ll discuss ETNs)
  - It gives exposure to assets that might otherwise be difficult to access efficiently, i.e. physical commodities, international indices, illiquid futures market etc.
  - Allow investors to gain or reduce exposure to equity sectors, country, sector and style indices as well as fixed income and commodity indices via a single listed share / unit
  - It is classified as a share (participatory interest) – not a derivative

- Open-ended fund backed by a basket of physical securities
  - The underlying basket for the ETF can be exchanged for participatory units in the ETF
  - Creation and / or redemption in specie – only available in “size” – typically a minimum of 1 million units

- A market maker ensures that there is always a buyer and seller in the market at the live fair value (NAV) of the ETF

**Investor is guaranteed to be able to buy or sell at the market price on demand!**
WHAT CONSTITUTES A CIS ETF?

Investment Product
Participatory units in an Exchange Traded Fund (ETF) that are listed on a stock exchange and offered through a market maker.

Product Wrapper – Collective Investment Scheme (CIS)

- ETF Issuer
- Trustee / Custodian
- Asset manager (incl. fund administration)
- Index Provider
- Index Calculation Agent

Stock exchange (NSE – ETF regulator)
Stock exchange (SEC – CIS regulator)
WHAT CONSTITUTES A NON-CIS ETF?

Investment Product
Participatory units in an Exchange Traded Fund (ETF) that are listed on a stock exchange and offered through a market maker's stock account.

Product Wrapper
- Insolvency remote SPV (special purpose vehicle)

Asset manager
(incl. fund administration)
ETF Issuer
Trustee / Custodian
Index Provider
Index Calculation Agent
ETF COMPARED TO (UNLISTED) CIS

- When an ETF is a “listed unit trust”, the listing offers
  - Live and fair value pricing (guaranteed liquidity)
  - Electronic transfer, registration, custody on a single central register in individual investor’s name
  - Additional investor protection and regulation of the stock exchange
- ETFs are NOT:
  - Futures, options or derivatives
  - Created through 100% synthetic replication
  - Geared, leveraged instruments (depends on regulations, but not recommended)
- ETFs are best used to access beta returns at low cost
  - Gives the desired exposure with a very high level of certainty
  - Actively managed funds can offer alpha returns, usually at a higher cost
    - Both exposure and (relative) performance is less predictable

Note: Don’t confuse certainty with low risk!
ETF VS. ETN

- Exchange traded note (ETN) sounds a lot like an Exchange traded fund (ETF), but it represents a very different type of investment
  - Only thing they have in common is that they are both listed on a stock exchange
- An ETN carries the credit risk of the issuer, and is not necessarily backed by physical assets
  - The issuer promises the investor to pay him a return based on the reference asset, but the investor runs the risk that the issuer will not be able to fulfil this promise
  - The issuer may choose to hedge his own risk by holding physical assets, but is not obliged to do so
- Examples of ETNs:
  - (International) index-tracking equity funds (i.e. very similar to ETFs)
  - Commodities
  - Currencies
CONTENTS

- What are ETFs and why are they attractive?
- What is needed to set them up?
- Advantages of ETFs, incl. Pricing
- How do you make ETFs easy to trade?
- ETFs in Africa
- Product development & the Future of ETFs in Nigeria
WHAT IS NEEDED TO SET THEM UP?
HOW TO CREATE AN ETF

- What regulatory constructs are needed: CIS? SPV?
- What type of ETF do you want to create?
  - Identify the target market and the product type
  - Identify the reference index
  - Identify all the stakeholders / role players / parties involved
- Application processes – parallel process between stock exchange (NSE) and capital markets authority (SEC):
  - Initialise process with stock exchange:
    - High Level proposal for ‘in-principle’ approval – product structure, stakeholders, etc.
  - Formal approval from SEC, if applicable (CIS)
  - Final approval for listing of participating units from NSE
- Listing process: IPO or seed capital?
WHAT IS NEEDED TO SET THEM UP?
CRITICAL SUCCESS FACTORS

- Involvement and buy-in of all role-players / stakeholders
  - Regulators, Stock exchange, Asset owners, Investors, Financial services industry
- Regulations
  - Listing requirements for the participatory units (ETF / ETN)
  - Underlying investment vehicle (e.g. CIS regulations, SPV, etc.)
  - Mandate compliance for targeted investors
- Underlying / reference asset
  - Asset class: Equity vs. Bonds vs. Commodities?
  - Foreign vs. Local?
  - Style: “Vanilla” vs. “Smart”, themed?
WHAT IS NEEDED TO SET THEM UP?
ROLE-PLAYERS & STAKEHOLDERS TO LIST AN ETF

- **Index Provider**: Advise on index structure
- **Asset manager**: (ensures fund replicates index)
- **Investment Fund**: (holds physical shares)
- **Trustee / Custodian**: (ensures fund complies with trust deed, regulations and law)
- **Investor(s)**
- **ETF provider**: 
  - **Primary market operations**: 
  - **ETF units**: 
  - **cash**: 
  - **New ETF units**: 
  - **cash**: 
  - **ETF units**:
WHAT IS NEEDED TO SET THEM UP?
ROLE-PLAYERS & STAKEHOLDERS TO LIST AN ETF

Index Provider
- Advise on index structure

Asset manager
(ensures fund replicates index)

Trustee / Custodian
(ensures fund complies with trust deed, regulations and law)

Investment Fund
(holds physical shares)

Investor(s)

ETF provider

Primary market operations

Secondary market operations

Investors

Stock Exchange

Market maker
(provides 24/7 market liquidity)
WHAT IS NEEDED TO SET THEM UP?
CONSIDERATIONS ON WHERE TO FOCUS YOUR EFFORTS

- Regulations & stakeholder buy-in (incl. financial support / commitment?)
- State of the market:
  - Does the current support a “home-grown” or an “imported” model?
  - Run the “chicken-and-egg” model in parallel
    - i.e. use an imported imperfect solution as a quick fix to assist the market in familiarising themselves with the concepts, whilst developing your home-grown offering
- Sustainable plan of action:
  - Define a medium term plan of what you want to achieve over the next five years
  - Ensure that any intermediate steps are supportive of the ultimate goal, even if in contradiction in the short term
- Where is the best “bang-for-your-buck”
  - Acknowledge your market’s strengths and weaknesses, optimise your opportunities and minimise the threats
CONTENTS

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PRICING OF ETF VS. CIS
PRIMARY MARKET – APPLIES MOSTLY TO CIS

- Primary market operations: creation and redemption of units
- Cost of creation / redemption typically paid by the investors
  - Trading costs of underlying basket of shares
  - Regulatory fees incl. applicable taxes
  - Accrued distributable amount
  - Negative impact to NAV for existing / remaining investors
- What about creation / redemption of ETF units?
  - Done by the market maker on behalf of the ETF provider / issuer
  - Market maker holds a stockpile of units to fulfil his obligations (offer both buy and sell intraday)
  - Creation / redemption costs are absorbed by the issuer, not by the investors
PRICING OF ETF VS. CIS
SECONDARY MARKET – APPLIES ONLY TO ETF

- Secondary market operations: trading in existing participatory units
- Trading in existing units has **NO cost impact** on the **underlying** fund value
  - Trading costs only for the listed participatory units
  - Regulatory fees and taxes – NSE trading costs
  - Trades at the NAV which includes the accrued distributable amount net of fees
- What about **index tracking unit trusts**?
  - Should have the same or lower product cost structure as the ETF
  - **BUT it may depend on the frequency of trading / creation and redemption of units!**
  - Lower regulatory fees – no NSE listing fees
  - Acquisition costs should be lower, especially if bought directly from the CIS Manco
  - No stock broking fee, no NSE costs
ADVANTAGES OF ETFS TO THE INVESTOR

- Regulation
  - First level of regulation is that of the stock exchange
  - Additional regulation may apply, depending on the investment vehicle (e.g. Collective Investment Scheme, Special Purpose Vehicle, etc.)

- Complete Transparency
  - Listed on the stock exchange, pricing is done on the market and is known to every investor
  - Underlying portfolio is always known
  - Settlement, trading, registration, transfer done through local CSCS

- Instant Liquidity & Tradability
  - ETFs trade like regular shares and can be bought or sold at any time on the stock exchange
  - Open-ended structure caters for large trades
  - Market maker ensures there is always a buyer / seller in the market at the live fair value (NAV)
ADVANTAGES OF ETFS TO THE INVESTOR (CONT’D)

- Passive Investments
  - Index-tracking ETF replicates the make up of an index
  - Index measures the average performance (beta) of a market, industry, sector, country etc.
  - The ETF gives the investor the same performance as the reference index – nothing more, but also nothing less (except for costs)!

- Diversification
  - Diversified portfolio
  - Provides full exposure to index shares / assets
  - Reduces risk / volatility
  - Ensures benchmark performance

- Very Cost Efficient
  - Average costs, Total Expense Ratio (TER) ≈ one-third of actively managed unit trusts
  - ETFs usually include trading costs in the TER whereas many actively managed funds choose not to
ADVANTAGES OF ETFS TO THE STOCK EXCHANGE

- Offering
  - Expanded range of investment opportunities offered
  - Represent a good starting point for a derivatives market & structured products

- Liquidity
  - Market maker ensures liquidity in the ETF – represents both buying and selling
  - Creation and redemption of ETF units require trade in the underlying securities – local ETFs therefore have the potential to increase liquidity in the overall market
  - Settlement, trading, registration, transfer done through local CSCS

- Revenue
  - New sources of revenue, e.g. listing fees
  - Payment for CSCS services, including payment of distributions
  - Development of local financial services industry – stock broking, market making, structured products, etc.
ADVANTAGES OF ETFS TO THE ISSUER

- Putting Clients First
  - Demonstrate commitment to giving clients what they want, and need!
  - Close the knowledge gap, reduce information asymmetry
- Multiple sources of potential revenue
  - Management fees; Trading income – underlying securities & ETF units
  - Building blocks for structured products
- Cost savings
  - Reduce / remove requirement for back office client admin
  - Simplified distribution procedure
- Asset management edge
  - Ability to actively manage passive exposures / building blocks
  - Portfolio assemblers
CONTENTS

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HOW DO YOU MAKE ETFs EASY TO TRADE?
TRADING & SETTLEMENT PROCESS

- ETF issuer can create or redeem additional ETF units at any time to match market demand and supply – open-ended structure

- Market maker
  - Purpose – always a willing buyer and seller at the fair value (NAV of the ETF)
  - ETF issuer is the primary market maker, transacting through executing stock brokers
  - Creation and redemption of units can only be undertaken by the ETF issuer

- Daily trading
  - Market maker offers a double throughout trading day
  - Demand or supply in excess of standard volume is facilitated with ETF issuer
  - Trade in the secondary market can occur between any two participating brokers without having to involve the ETF issuer
  - Q’s: What is an acceptable ‘standard’ volume? What is an acceptable bid-offer spread around the NAV (net asset value)?

- Consider favourable trading costs (brokerage rates, etc.) to encourage trading activity
Liquidity is of paramount importance to underlying stocks, to indices and to resulting ETFs
  - In the case of limited local liquidity, listing a local ETF is quite risky

“Importing” liquidity:
  - Foreign listed stocks and investment products; foreign-referenced indices
  - Essentially what has been done with South African ETFs listed in Botswana, Mauritius, Namibia and Ghana and global ETFs in Mauritius

Market participation and market makers provide liquidity:
  - Liquidity is provided and promoted in the local market
    - through actual trading, and
    - through ease of access to information (pre- and post-trade)
  - Request creation and redemption on demand from ETF issuer
CONTENTS

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ETFS IN AFRICA / AFRICAN ETFS
WHAT IS CURRENTLY AVAILABLE?

- ETFs listed on African stock exchanges:
  - South Africa – 74 Exchange Traded Products, covering all asset classes, incl. commodities, and several international ETPs
  - Botswana – 4: NewGold, NewPlat (commodity), CoreShares (SA equity), NewFund ILBl (bonds)
  - Nigeria – 8: ETFs listed (6 local equity, 1 local bond & 1 foreign commodity)
  - Namibia – 4: NewGold, NewPlat & NewPalladium; Standard Bank Palladium (all commodity)
  - Ghana – 1: NewGold (commodity)
  - Egypt – 1: EGX30 (local equity)
  - Kenya, Morocco – in progress
ETFS IN AFRICA / AFRICAN ETFS
WHAT IS CURRENTLY AVAILABLE?

- ETFs listed outside of Africa, giving exposure to Africa:
  - Three single country ETFs available: South Africa, Egypt, Nigeria
  - Emerging market and Frontier market ETPs have very limited exposure to Africa, even SA
  - Greater range of “African” ETFs available (incl. Middle East), but beware – “Africa” means different things to different people…

- What about “African ETFs” for African investors?
  - 2 ETPs listed in South Africa with exposure to Africa equities (3rd already approved)
    - Db x-tracker MSCI Africa Top 50 Capped ETN (incl. SA)
    - Standard Bank Africa Equity ETN (excl. SA but incl. 40% “African” companies listed outside of Africa)
  - Benefit accrues to financial institutions outside of country / continent (mostly US)
    - Is the prevalence of the US$ in Africa a form of neo-colonialism?
CONTENTS

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- ETFs in Africa
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PRODUCT DEVELOPMENT & THE FUTURE OF ETFS
POSSIBLE CONSIDERATIONS FOR THE NIGERIAN MARKET

▶ Product expansion
  ▶ Domestic: “Smart” Beta; Listed Property
  ▶ Offshore / International – geographic, sector, currency, asset class diversification

▶ Distribution channel expansion
  ▶ Institutional investment decision makers: portfolio managers / multi-managers / actuarial consultants / pension fund trustees – education, tools
  ▶ Financial planners / advisers – education, tools
  ▶ Online share trading platforms, also offering ETFs

▶ Not recommended any time soon:
  ▶ Synthetic replication (maybe maximum 10% but no more)
  ▶ Leveraged, geared, inverse, short ETFs
  ▶ Non-index tracking ETFs (e.g. actively managed ETFs)
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APPENDIX
ETF – FAQ

Frequently Asked Questions (FAQs)

What is an ETF? An Exchange Traded Fund (ETF) is an investment vehicle which provides an investor with direct access to a basket of shares traded on stock exchanges such as the Nigerian Stock Exchange (NSE) with the convenience of trading in a single security. Most ETFs track an index, such as the NSE30. ETFs are attractive as investments because of their low costs (Total Expense Ratio – TER) and the ability to purchase them like a normal exchange listed security. An ETF combines the diversified portfolio of a unit trust investment with the tradability features of a listed security allowing it to be bought or sold at the end of each trading day at the market ruling price.

What benefits do ETFs offer? Buying a basket of shares (an ETF) is less risky than buying a single listed company as the diversification and spread of investments reduces the risk exposure. ETFs typically track an index of the most liquid shares on the stock market. Indices are regularly rebalanced by the index providers to ensure that they reflect the most successful securities on the exchange.

Are ETFs cost effective? Yes. When you buy an ETF you only pay once for exposure to a basket of shares. If you bought this index basket yourself, via a stock broker, it would be more expensive, and you would pay brokerage and statutory charges and taxes for each of the shares purchased. When you buy an ETF, you only pay brokerage once and there is no additional taxes payable for ETF transactions. ETFs generally have lower costs than other investment products because most ETFs are not actively managed and the underlying portfolio of shares is not traded regularly. ETFs typically have lower marketing, distribution and administration expenses.

Are ETFs easily tradable? Yes. ETFs can be bought or sold at any time on the stock market just like any other listed security. The stock exchange trading system facilitates buying and selling prices at all times and there are market makers to provide liquidity (prices) for large orders. Alternatively, investors can transact ETFs via an investment platform such as www.etfsa.co.za where all orders are pooled and traded once a day.

Are ETFs transparent? Yes. Being listed on the stock exchange means that prices are updated at frequent intervals and are available to investors throughout the trading day, and not just once a day like a unit trusts. The ETF issuer discloses the underlying portfolio of shares in the ETF fund on a daily basis.

Do ETFs pay dividends? Yes, ETFs collect the dividends from all the companies in the index tracked and pay these dividends over to investors, normally four times a year at the end of each quarter. The accrued dividends in any ETF portfolio are published daily in the net asset value (NAV) figures by all ETF issuing companies.

Do I have ownership of my ETFs? Yes. Every ETF security own by an investor is registered in his name on the Central Securities Clearing & Settlement share register.

Are ETFs well regulated? Yes. Many ETFs are registered under the relevant Collective Investment Schemes (Mutual Fund, Unit Trust) legislation and are regulated and controlled by the financial market regulator. All ETFs are publicly listed securities and are also regulated by the stock exchange.
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EXCHANGE TRADED FUNDS WORKSHOP 2016

STOCK EXCHANGE HOUSE
2/4 CUSTOMS STREET
LAGOS ISLAND.

NOVEMBER 7, 2016
9:00 a.m. - 2:30 p.m.

In partnership with: Stanbic IBTC Asset Management, Lotus Capital, VETIVA
TRADING & INVESTMENT STRATEGIES USING EXCHANGE-TRADED FUNDS (ETFS)

ETF Workshop 2016
Nigeria Stock Exchange

7 November 2016
CONTENTS

- Understanding “passive” investing
- Investment strategies using ETFs
- Trading strategies using ETFs
CONTENTS

- Understanding “passive” investing
  - Passive investment ≡ Index-tracking investment
  - Perception vs. Reality of “average”
  - “All investing is active”
  - What is “passive” at overall portfolio level?

- Investment strategies using ETFs

- Trading strategies using ETFs
PASSIVE INVESTMENT = INDEX TRACKING

- "Index tracking" means "following a recipe"
- To bake a cake, your recipe specifies the **ingredients** and **quantities**
INDEX MEASURES “AVERAGE” PERFORMANCE

- An index reflects the **aggregate performance** (capital growth and dividends) of a **basket of shares**, e.g.
  - Nigerian equity market as a whole (NSE All Share or NSE 30)
  - Component of the equity market (NSE Banking or NSE Industrial)
  - Global equity market (MSCI World, FTSE All World)

- Can measure **different types of assets**:
  - Equities
  - Commodities
  - Bonds
  - Currencies
  - Listed Property
  - Cash (money market)
PERCEPTION OF “AVERAGE”

Index return

Index tracking fund return

All available equity funds

% Total Return p.a.
HOW WELL DO ACTIVELY MANAGED FUNDS PERFORM?

% of active managers who failed to outperform their benchmarks (broad-based market index)

<table>
<thead>
<tr>
<th>Region</th>
<th>1 year</th>
<th>3 years</th>
<th>5 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>85%</td>
<td>81%</td>
<td>92%</td>
</tr>
<tr>
<td>Europe</td>
<td>57%</td>
<td>73%</td>
<td>80%</td>
</tr>
<tr>
<td>South Africa</td>
<td>51%</td>
<td>63%</td>
<td>75%</td>
</tr>
</tbody>
</table>

Source: S&P Dow Jones Indices (SPIVA Scorecard) (June 2016)
REALITY OF “AVERAGE”

Index return

Passive is neither average nor mediocre

Index tracking fund return

% Total Return p.a.

All available equity funds
ALL INVESTING IS ACTIVE...

...it’s just the **level of activity** that varies

- **Low-churn**
  - Passive: Buy & Hold
    - Traditional ‘Passive’ - Market cap weighted indices (e.g., S&P500, FTSE100, Top40, etc.)
  - ‘Active’: ‘Innovation Creep’ through ‘smart’ indices & ETFs

- **Top-down**
  - Dynamic Active: Rules-based Active Skill - Div+, RAFI, Low volatility, etc.

- **Bottom-up**
  - Traditional Active Skill - Value Investing - Growth/Momentum - etc.

**Lowest cost** vs. **Highest cost**
WHAT CONSTITUTES “PASSIVE” AT THE PORTFOLIO LEVEL?

- Managing *passive* building blocks *passively*
- Managing *active* building blocks *passively*
- Managing *passive* building blocks *actively*
- Managing *active* building blocks *actively*

Minimise risk (tracking error)

Potential to maximise return

Costs

Lowest

Highest
CONTENTS

- Understanding “passive” investing

- Investment strategies using ETFs
  - Evolution of ETF investment strategies
  - Investment strategies for various time horizons
  - Core-Satellite approach (top-down strategies)
  - ETF managed portfolios

- Trading strategies using ETFs
EVOLUTION OF ETF INVESTMENT STRATEGIES

- Exposure to broad-based equity market indices
  - Traditional “passive” investing
  - Efficient exposure to (market) beta
  - **Benefit**: low cost, transparency, operational and tax efficiency

- Expansion of “passive” to other asset classes
  - Application of indexation beyond equities
  - ETFs with non-equity underlyings allow for multi-asset class exposure via stock exchange
  - **Benefit**: ease of transaction; security of custody, clearing, settlement

- Rise of “smart beta” and alternative investment strategies
  - Rules-based investment decisions, commoditisation of active decision making
  - Index construction evolves from “performance benchmarks” to “allocation guidelines”
  - **Benefit**: multi-factor performance drivers; exposure consistency & style purity
### STRATEGIES FOR DIFFERENT TIME HORIZONS

<table>
<thead>
<tr>
<th>Strategic (multi-year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core index or Enhanced index exposure</td>
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<tr>
<td>Implementation of strategic investment policy</td>
</tr>
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<td>Asset allocation / Top down investment strategies</td>
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<tr>
<td>Strategy / factor / “smart” index as active manager alternative</td>
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</tbody>
</table>
# Strategies for Different Time Horizons

<table>
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<tr>
<th>Strategic (multi-year)</th>
<th>Tactical (&lt;1 year)</th>
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</thead>
<tbody>
<tr>
<td>Core index or Enhanced index exposure</td>
<td>Allocate cash inflows based on target exposure weights</td>
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<tr>
<td>Implementation of strategic investment policy</td>
<td>Active / tactical overlay to strategic allocation strategy</td>
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<td>Completion strategy – fill gaps or change effective exposure</td>
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<tr>
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<td>Portfolio transition during manager or policy shift</td>
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### STRATEGIES FOR DIFFERENT TIME HORIZONS

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<th><strong>Both strategic &amp; tactical</strong></th>
<th><strong>Tactical (&lt;1 year)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Core index or Enhanced index exposure</td>
<td>Achieve target exposures starting from active positions</td>
<td>Allocate cash inflows based on target exposure weights</td>
</tr>
<tr>
<td>Implementation of strategic investment policy</td>
<td>Over- or under-weight (tilt) relative to index exposures</td>
<td>Active / tactical overlay to strategic allocation strategy</td>
</tr>
<tr>
<td>Asset allocation / Top down investment strategies</td>
<td>Risk factor management – single or multi-asset</td>
<td>Completion strategy – fill gaps or change effective exposure</td>
</tr>
<tr>
<td>Strategy / factor / “smart” index as active manager alternative</td>
<td>Thematic or Style tilt investing</td>
<td>Portfolio transition during manager or policy shift</td>
</tr>
</tbody>
</table>
CORE-SATELLITE APPROACH TO PORTFOLIO CONSTRUCTION

Active approach
- Seeks to outperform
- Higher cost
- Higher manager risk
- Shorter term focus
- Lower potential tax efficiency

Core-Satellite approach
- Index core
- Active satellites

Index approach
- Seeks market returns
- Lower cost
- Low manager risk
- Long-term focus
- Higher potential tax efficiency

Combines Best of Both Worlds!
SELECTING SATELLITES

- A **good** satellite investment should be **sufficiently different** from the core

- **Strategic** implementation
  - **Equity only** – different shares, sectors, size
  - **Other asset classes** – towards a diversified balanced fund
  - **Geographic** diversification – developed markets, other emerging / regional exposures
  - “**Smart**” exposures – beyond traditional passive investments

- **Tactical** satellites
  - **Active** fund managers with specific skills
  - Targeted exposure to **desired investment opportunities**
  - Shorter term portfolio **tilts**
ETF MANAGED PORTFOLIOS

- Investment strategies with >50% of portfolio assets invested in ETFs
- One of the fastest growing segments in the managed account universe:
  - Sep-11: 370 strategies holding $27bn in assets, 43% growth over trailing 1 year
  - Jun-16: 787 strategies holding $84bn in assets, 11% growth q-on-q
- Reasons for strong growth amongst financial advisers:
  - Growth in fee-based models (rather than commission-based)
  - Fiduciary responsibility is shifting towards adviser
  - ETF strategists facilitates access to institutional-type diversification and portfolio management; adviser can focus on gathering & retaining client assets and managing overall financial profile
- Provides access to a broad range of strategies – from stand-alone strategies to one-stop, complete-solution offerings

Source: Morningstar Inc.
## ETF Managed Portfolios - Classification

<table>
<thead>
<tr>
<th>Universe</th>
<th>Asset breadth</th>
<th>Portfolio Implementation</th>
<th>Primary ETF Exposure Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Global</td>
<td>All asset (at least 10% in “other” assets)</td>
<td>Strategic</td>
<td>Broad market</td>
</tr>
<tr>
<td>International (non-US)</td>
<td>Balanced (mostly equity &amp; fixed income)</td>
<td>Tactical</td>
<td>Sector</td>
</tr>
<tr>
<td>US</td>
<td>Equity</td>
<td>Hybrid</td>
<td>Country / region</td>
</tr>
<tr>
<td></td>
<td>Fixed Income</td>
<td></td>
<td>All-inclusive</td>
</tr>
<tr>
<td></td>
<td>Alternative</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Morningstar Inc.*
HOW DO YOU KNOW WHAT PERFORMANCE TO EXPECT FROM AN ETF INVESTMENT?

- An investment in a **physically-replicated index-tracking** ETF gives you the assurance that you will receive the **same** return as the underlying asset, which usually means an index such as the NSE30 or S&P500, after costs.

- Although you do not know in advance what **absolute return** you will receive, you do know that you will receive the same return as the index.

- This means that an ETF has **very low relative risk** when compared to the benchmark index.

- However, one could still have **absolute risk** in your investment.
  - If the index declines by 10%, your ETF investment will also decline by 10%.

- Your ETF investment will have the **same return and risk** characteristics as the index it tracks.

**Make sure you know what that is!**
 CONTENTS

- Understanding “passive” investing

- Investment strategies using ETFs

- Trading strategies using ETFs
  - Cash equitisation
  - Sector / asset class rotation
  - Hedging
  - Efficient, Fast, Targeted trading
TRADING STRATEGIES USING ETFS

- **Cash equitisation**
  - Deploy cash inflows immediately into the market to avoid cash drag
  - Shift exposure from ETF to selected securities when opportunities arise

- **Sector / asset class rotation**
  - Get instant access to desired exposures on a tactical basis
  - Limited market / price impact

- **Hedging**
  - Limited value in a long-only environment
  - Short-selling of ETFs has less impact than stock-specific shorting

- **Efficient, Fast, Targeted trading**
  - Guaranteed liquidity via market maker / authorised participant
  - Risk sharing within the broader market
IMPORTANT CONSIDERATIONS IN USING ETFS

- **WISIWYG** – *What’s InSide Is What You Get*
  - Make sure you **know** what it is

- Do not select investments on the basis of **past performance**
  - Understand the **drivers** of past performance to look for clues on future performance

- Consider your portfolio on an **aggregate** basis
  - Beware unintended **concentration** risk and bias
“My advice to the trustee could not be more simple: Put 10% of the cash in short-term government bonds and the rest in a very low-cost S&P 500 index fund (I suggest Vanguard’s). I believe the trust’s long-term results from this policy will be superior to those attained by most investors – whether pension funds, institutions or individuals – who employ high-fee managers.”
Nerina Visser, CFA
ETF Strategist & Advisor
Tel: +27 11 274 6173
Cell: +27 83 630 6599
Email: nerina@nerinavisser.com
Twitter: @Nerina_Visser
Address: 79 Oxford Rd, Saxonwold, Johannesburg, South Africa
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EXCHANGE TRADED FUNDS WORKSHOP 2016

STOCK EXCHANGE HOUSE
2/4 CUSTOMS STREET
LAGOS ISLAND.

NOVEMBER 7, 2016
9:00 a.m. - 2:30 p.m.

In partnership with: Stanbic IBTC Asset Management, Lotus Capital Investments, VETIVA
S&P Dow Jones Indices
Evolving Trends in Indexing and ETFs

7 November, 2016
THE WORLD'S LARGEST PROVIDER OF FINANCIAL MARKET INDICES.

• S&P Dow Jones Indices is at the forefront of index change and innovation for the last 120 years.

• S&P Dow Jones Indices is the world’s premiere multi-asset class index provider
• The only index provider to offer indices across Global equity, commodities, volatility, real estate & fixed income Indices.

• Today, more assets are invested in products (ETFs etc) based on our indices than any other provider in the world.

• Aligned with IOSCO principles for index providers

• Methodologies are freely available on www.spindices.com
Trends in the Market

• Active managers struggle to outperform benchmarks
• Sustainability investing continues to gather momentum
• Investors are becoming increasingly well versed in factor investing
• Hunt for yield in a low-interest-rate environment
• Downside Risk Management
• Multi Asset Indices
• Index trackers are being used as default investment options.

• Research Article: The rise of indices is changing the face of investing.
EVOLUTION IN THE ASSET MANAGEMENT INDUSTRY – INDEXATION OPPORTUNITY FOR MULTI ASSET SOLUTIONS

S&P Dow Jones Indices
An S&P Global Division
ETF/ETP INDUSTRY

- The Global ETF/ETP industry had 6,526 ETFs/ETPs, with 12,386 listings, assets of US$3,408 Bn, from 284 providers on 65 exchanges.

- ETFs linked S&P Dow Jones Indices have AUM’s over $900 bn as at 30 Sept 2016.

- We just saw ETFs on the S&P 500 and S&P Global Property 40 indices list on the JSE on the 4th November 2016.

- In Nigeria the 1st ETF linked to Nigerian Sovereign Bonds listed on the NSE on the 24th October 2016.

- Big potential to grow in Nigeria, as investors are looking to access the largest economy in Africa.

Source: ETFGI
USES OF ETFS

- ETFs are used widely by institutional investors and increasingly by financial advisors and retail investors to:
  - Equitize cash
  - Implement diversified exposure to a market
  - Comprise a core or satellite investment
  - Be a long term strategic investment
  - Implement tactical adjustments to portfolios
  - Use as building blocks to create entire portfolios
  - Use as an alternative to futures and other derivative products

Source: Web: www.etfgi.com
## TRADEABILITY VS. REPRESENTATIVENESS

**Figure 1: Common Criteria for Achieving Tradeability and Representativeness**

<table>
<thead>
<tr>
<th>Methodology for Liquidity / Tradability</th>
<th>Methodology for Representativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Include limited number of stocks</td>
<td>- Include the largest stocks by market cap</td>
</tr>
<tr>
<td>- Minimum float adjusted market cap</td>
<td>- Minimum market coverage ratio</td>
</tr>
<tr>
<td>- Minimum trading volume or value</td>
<td>- Representation across equity risk</td>
</tr>
<tr>
<td>traded</td>
<td>factors such as countries, sectors and</td>
</tr>
<tr>
<td>- Minimum turnover ratio</td>
<td>styles</td>
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<tr>
<td>- Frequency of trading</td>
<td></td>
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<tr>
<td>- Use liquidity weighting instead of</td>
<td></td>
</tr>
<tr>
<td>market cap weighting</td>
<td></td>
</tr>
<tr>
<td>- Use liquid ADR/GDR instead of local</td>
<td></td>
</tr>
<tr>
<td>listing</td>
<td></td>
</tr>
</tbody>
</table>

Source: [www.spdji.com](http://www.spdji.com) Evaluating Index Tradeability. A brief cross-asset class Review
COUNTRY AND REGIONAL INDICES

East Africa
  - Kenya

West Africa
  - Nigeria
  - Ghana
  - Cote d’Ivoire

North Africa
  - Egypt
  - Morocco
  - Tunisia

Southern Africa ex SA
  - Botswana
  - Namibia
  - Mauritius
  - Zambia
  - Zimbabwe
S&P West Africa Indices

Nigeria
- S&P Nigeria Sovereign Bond Index
- S&P Nigeria BMI Broad Market Index
- Nigeria Sectors Indices
- S&P Nigeria Select
- S&P Nigeria Select Equity Income
- S&P Nigeria Shari’ah BMI Index

Ghana
- S&P Ghana Sovereign Bond Index
- S&P Ghana BMI Broad Market Index

Cote d’Ivoire
- S&P Cote d’Ivoire BMI Broad Market Index
- S&P Cote d’Ivoire Shari’ah BMI Index

Sectors
- Energy
- Materials
- Consumer Staples
- Financials
- Industrials
TRADABLE INDICES

- East Africa 10
- West Africa 25
- North Africa 15
- Southern Africa ex SA 10
- South Africa 50
- Access Africa
- Africa 40

- All Africa Select
- All Africa ex SA Select
- Pan Africa ex SA Select
- Sub Saharan Africa ex SA Select
S&P Africa Sovereign Bond Index

- S&P Africa Euro Currency Global Sovereign Bond Index
- S&P Africa Japanese Yen Global Sovereign Bond Index
- S&P Africa U.S. Dollar Global Sovereign Bond Index
- S&P Africa Sovereign Ex-South Africa Bond Index
- S&P Africa Sovereign Bond ex Tanzania Bond Index
- S&P Africa Sovereign Bond ex SA ex Tanzania Bond Index
- S&P Africa Sovereign Bond ex Tanzania (15% Capped) Bond Index
- S&P Africa Sovereign Bond ex SA ex Tanzania (15% Capped) Bond Index
- S&P Africa Global Sovereign Bond ex Tanzania Bond Index
- S&P Africa Global Sovereign Bond ex Tanzania (15% Capped) Bond Index
Is Smart Beta Possible In Africa?

<table>
<thead>
<tr>
<th>SOUTH AFRICA</th>
<th>3 Years pa</th>
<th>5 Years pa</th>
<th>7 Years pa</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Market Cap Indices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P South Africa Composite</td>
<td>6.56%</td>
<td>12.53%</td>
<td>10.55%</td>
</tr>
<tr>
<td><strong>Alternatively Weighted Indices</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P Momentum South Africa Index</td>
<td>5.36%</td>
<td>18.06%</td>
<td>18.89%</td>
</tr>
<tr>
<td>S&amp;P Quality South Africa Index</td>
<td>5.99%</td>
<td>14.27%</td>
<td>18.08%</td>
</tr>
<tr>
<td>S&amp;P South Africa Dividend Aristocrats</td>
<td>11.91%</td>
<td>17.81%</td>
<td>17.94%</td>
</tr>
<tr>
<td>S&amp;P South Africa Low Volatility</td>
<td>9.55%</td>
<td>17.15%</td>
<td>17.57%</td>
</tr>
<tr>
<td>S&amp;P Low Beta South Africa Composite</td>
<td>8.20%</td>
<td>15.72%</td>
<td>15.74%</td>
</tr>
<tr>
<td>S&amp;P GIVI South Africa Composite</td>
<td>7.33%</td>
<td>14.26%</td>
<td>14.96%</td>
</tr>
<tr>
<td>S&amp;P South Africa 50 Equal Weight</td>
<td>7.68%</td>
<td>12.93%</td>
<td>13.97%</td>
</tr>
<tr>
<td>S&amp;P Intrinsic Value Weighted South Africa Composite</td>
<td>5.02%</td>
<td>10.69%</td>
<td>12.04%</td>
</tr>
<tr>
<td>S&amp;P Enhanced Value South Africa</td>
<td>6.00%</td>
<td>11.87%</td>
<td>9.98%</td>
</tr>
</tbody>
</table>

South Africa makes up about 90% of the market cap of African equities. Large amount of stocks, and well diversified.

Source: S&P Dow Jones Indices LLC. Data as of October 31, 2016. Index performance based on total return in ZAR. Past performance is no guarantee of future results. Table is provided for illustrative purposes.
Is Smart Beta Possible In Nigeria?

Source: S&P Dow Jones Indices LLC. Data as of Oct 31, 2007 to 31 Oct 2016. Index performance based on total return in NGN. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

S&P Dow Jones Indices

An S&P Global Division
## S&P Nigeria Indices

Bond indices have delivered much better returns over the long run in Nigeria.

<table>
<thead>
<tr>
<th>31 Oct 2016 (Gross TR in NGN)</th>
<th>YTD</th>
<th>1 Year</th>
<th>2 Years pa</th>
<th>3 Years pa</th>
<th>5 Years pa</th>
<th>7 Years pa</th>
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</thead>
<tbody>
<tr>
<td><strong>Broad Market Indices</strong></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>S&amp;P Nigeria BMI (Broad Market Index)</td>
<td>-1.5%</td>
<td>-8.3%</td>
<td>-13.3%</td>
<td>-9.4%</td>
<td>7.0%</td>
<td>4.6%</td>
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<tr>
<td><strong>Sector Indices</strong></td>
<td></td>
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</tr>
<tr>
<td>S&amp;P Nigeria BMI Energy Index</td>
<td>-35.7%</td>
<td>-34.0%</td>
<td>-25.1%</td>
<td>2.4%</td>
<td>-7.5%</td>
<td>-9.9%</td>
</tr>
<tr>
<td>S&amp;P Nigeria BMI Materials Index</td>
<td>-11.1%</td>
<td>-8.2%</td>
<td>-13.3%</td>
<td>-4.5%</td>
<td>12.6%</td>
<td>13.7%</td>
</tr>
<tr>
<td>S&amp;P Nigeria BMI Industrials Index</td>
<td>-7.6%</td>
<td>-30.2%</td>
<td>-37.7%</td>
<td>-31.2%</td>
<td>-2.7%</td>
<td>-2.7%</td>
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<tr>
<td>S&amp;P Nigeria BMI Consumer Staples Index</td>
<td>2.0%</td>
<td>3.6%</td>
<td>-6.2%</td>
<td>-9.9%</td>
<td>7.8%</td>
<td>12.9%</td>
</tr>
<tr>
<td>S&amp;P Nigeria BMI Financials Index</td>
<td>7.8%</td>
<td>-6.7%</td>
<td>-13.2%</td>
<td>-8.5%</td>
<td>7.3%</td>
<td>2.5%</td>
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<tr>
<td><strong>Shariah Indices</strong></td>
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<tr>
<td>S&amp;P Nigeria BMI Shariah Index</td>
<td>-18.2%</td>
<td>-14.7%</td>
<td>-9.9%</td>
<td>-11.0%</td>
<td>9.4%</td>
<td>11.2%</td>
</tr>
<tr>
<td><strong>Select Indices</strong></td>
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<tr>
<td>S&amp;P Nigeria Select Index</td>
<td>0.2%</td>
<td>-6.7%</td>
<td>-11.6%</td>
<td>-8.7%</td>
<td>7.6%</td>
<td>6.2%</td>
</tr>
<tr>
<td>S&amp;P Nigeria Select Equity Income Index</td>
<td>6.6%</td>
<td>-1.2%</td>
<td>-13.6%</td>
<td>-10.7%</td>
<td>1.7%</td>
<td>2.9%</td>
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<tr>
<td><strong>Sovereign Bond Market Index</strong></td>
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</tr>
<tr>
<td>S&amp;P Nigeria Sovereign Bond Index</td>
<td>-5.0%</td>
<td>10.3%</td>
<td>9.7%</td>
<td>10.9%</td>
<td>14.0%</td>
<td>9.7%</td>
</tr>
</tbody>
</table>

Source: S&P Dow Jones Indices. Data as of 31 March, 2016. Charts are provided for illustrative purposes. Past performance is no guarantee of future results. This chart may reflect hypothetical historical performance.
You have the idea, we’ll create the Index.

Customized Variation on a Standard S&P Dow Jones Index
- Calculated by S&P Dow Jones
- Non-standard breakouts by country/region, size and sector
- Exclude certain stocks based on client criteria
- Alternative weighting and capping

Client’s Proprietary Index Using or Referencing an S&P Dow Jones Index
- Calculated by S&P Dow Jones
- Client methodology uses an S&P Dow Jones Index as a universe, or a value of an index as an input
- Client owns the intellectual property; index carries the client’s branding

Client’s Proprietary Index
- Calculated by S&P Dow Jones
- Client methodology. No use of S&P Dow Jones intellectual property
- Client owns the intellectual property; index carries the client’s branding

Source: S&P Dow Jones Indices. See the methodology document at www.spindices.com for more information.

S&P Dow Jones Indices
An S&P Global Division
<table>
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<tr>
<th>ASSET CLASS</th>
<th>SECTOR</th>
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<th>SIZE</th>
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<td>o All World</td>
<td>o Large Cap</td>
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<td>o GICS Industry</td>
<td>o North America</td>
<td>o Mid Cap</td>
<td>o Equal Weighted</td>
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<td>o Fixed Income</td>
<td>o GICS Sub Industry</td>
<td>o Europe</td>
<td>o Small Cap</td>
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<td>o Currencies</td>
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<td>o Asia</td>
<td>o Custom Cap</td>
<td>o Fundamental</td>
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<td>o Volatility</td>
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<td>o Custom Sizes</td>
<td>o Custom Weighting</td>
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<td>o Constituent Capping</td>
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<td>o Regional Capping</td>
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<tr>
<td>o Sector Capping</td>
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<tr>
<td>o Custom Capping</td>
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<td>o UCITS Capping</td>
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<th>REBALANCING</th>
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<th>STYLE</th>
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<td>o Growth</td>
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<td>o Value</td>
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<tr>
<th>CURRENCY</th>
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<tr>
<td>o Multi Currency Hedging Calculator</td>
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<td>o Multi Currency Spot Calculator</td>
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<th>TOTAL RETURN</th>
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<tbody>
<tr>
<td>o Gross</td>
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<tr>
<td>o S&amp;P Tax Rates</td>
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<tr>
<td>o Customized Tax Rates</td>
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<tr>
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<td>o Beijing Management</td>
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<table>
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<td>o End-of-Day</td>
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<td>o Via Vendors (BBG)</td>
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<table>
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<tr>
<th>STRATEGIES</th>
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<tr>
<td>o Risk Control</td>
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<tr>
<td>o Leverage &amp; Inverse</td>
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<tr>
<td>o Dynamic Allocation</td>
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<tr>
<td>o Volatility Control Mechanism</td>
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<td>o Momentum Based Strategies</td>
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<tr>
<th>SHARIAH</th>
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<tr>
<td>o Shariah Compliance</td>
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<tr>
<td>o Shariah GICS</td>
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<td>o Shariah by region</td>
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<tr>
<th>INAV</th>
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<tbody>
<tr>
<td>o Fully Supported</td>
</tr>
<tr>
<td>o iNAVs for U.S. listed ETFs</td>
</tr>
<tr>
<td>o iNAVs for ETNs globally</td>
</tr>
</tbody>
</table>
Building Solutions

S&P DJI utilizes a collaborative approach to build an index.

- **Starting Universe:** S&P Nigeria BMI, S&P Nigeria Select, S&P Nigeria Sovereign Bond
- **Filter:** Liquidity, Size
- **Allocations:** (70% Bond / 30% Equity)
- **Capping:** Cap Stocks, Cap Sectors, Cap Asset Class
- **Weighting and Rebalancing**

Index that fits your specific needs
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