MORGAN & CO

OUR WORD IS OUR BOND

MORGAN & CO STOCK MARKET INDICES

Financial Services	Industrials	Consumer
Manufacturing & Logistics	Telecommunications, Media and Technology	Mining
Banking	Real Estate	Building Materials
Insurance	Tourism & Hospitality	Consumer Discretionary
Consumer Non-Discretionary	Food & Agriculture	VFEX

Morgan & Co Stock Market Indices

Morgan & Co has come up with 16 key indices that are focused on helping investors compare current price levels with past prices and calculate market performance. These are statistical measures that represent the value of a batch of stocks and serve as a barometer to track the overall progress of the market (or a segment of it). The Morgan & Co Research Indices are sector-based coverage indices that can track the performance of specific sectors of the market such as Real Estate, Banking and Insurance.

Index Construction

In terms of the eligible securities, all classes of listed ordinary shares in issue are eligible for inclusion in the indices. The companies must have a full listing on the main board of the ZSE, FINSEC or VFEX to be eligible for inclusion in the Morgan & Co Indices. Exchange Traded Funds (ETFs) and funds whose prices are a direct derivation of underlying holdings are not eligible for inclusion. The following are the 15 indices;

Combined Sector Indices
- *Morgan & Co All Share Index*
- *Morgan & Co Industrials Index*
- *Morgan & Co Consumer Sector Index*
- *Morgan & Co Financial Services Index*

Sectoral Indices
- *Morgan & Co Manufacturing & Logistics Index*
- *Morgan & Co Telecommunications, Media and Technology Index*
- *Morgan & Co Mining Index*
- *Morgan & Co Banking Index*
- *Morgan & Co Real Estate Index*
- *Morgan & Co Building Materials & Construction Index*
- *Morgan & Co Insurance Index*
- *Morgan & Co Tourism & Hospitality Index*
- *Morgan & Co Consumer Discretionary Index*
- *Morgan & Co Consumer Non-Discretionary Index*
- *Morgan & Co Food & Agriculture Index*
- *Morgan & Co VFEX Index*

Applications of the Morgan & Co Indices

The indices will serve as major market indicators that provide a summary measure of how a group of stocks on the stock markets are performing. Our indices also cut across all stock exchanges (ZSE, FINSEC and VFEX). These indicators will provide a means for market participants to gauge the movement of market prices over time. Below is a summary of some of the uses of our indices;

- The indices serve as **benchmarks to evaluate performance.** This includes comparisons for performance of fund managers or as indicators of the performance of asset classes;
- The indices can be used to **create and monitor an index fund.** Indicators are often used as a basis for the construction of an indexed fund. For example, Exchange Traded Funds (ETFs) can be created to mimic indices;
- To forecast **future stock market movements and measure market rates of return.** Through technical analysis means, understanding past returns helps predict future market movements; and
- The indices can be used as **proxies for the market portfolio** in the calculating systematic risk of a stock.

Overall, it should be highlighted that all the indices will be published alongside the respective investment metrics such as the weighted average price earnings ratio (PER) and Dividend Yield (DY). Morgan & Co Research has also calculated prospective PER ratios for all the 16 indices. These are based on our Historic Cost Earnings Per Share (EPS) estimates that will be updated as new information is disseminated in the market. In instances where a company has not provided historic cost financials, inflation-adjusted numbers are used to come up with Historic Cost Earnings Per Share (EPS) estimates. In terms of Dividends Yields, our method makes use of reported historic annualised dividends.

Morgan & Co Stock Market Index Constituents

Industrials

- *Proplastics*
- *Turnall*
- *Lafarge*
- *Masimba*
- *Willdale*
- *Art Corporation*
- *Cafca*
- *General Beltings*
- *MedTech (BridgeFort Capital)*
- *Nampak*
- *NTS*
- *TSL*
- *Unifreight*
- *Zeco*
- *Zimplow*

Consumer Discretionary

- *Afdis*
- *Axia*
- *BAT*
- *Delta*
- *Edgars*
- *Simbisa Brands*
- *Truworths*
- *Dairibord Holdings Limited*
- *Innscor*
- *Meikles Limited**
- *National Foods*
- *OK Zimbabwe*
- *Star Africa*
- *African Sun*
- *Rainbow Tourism Group*

Telecoms, Media & Technology

- *Cassava Smartech*
- *Econet*
- *Zimpapers*

All Share

- *All listed companies on ZSE and FINSEC.*

Publication of the Morgan & Co Research Stock Market Indices

The Morgan & Co Research Indices will be published daily on the following platforms;
•   **Morgan & Co Website (www.morganzim.com);**
•   **Morgan & Co Research App (*available on Google play and Apple*);**
•   **Morgan & Research Email Distribution List; and**
•   **C-Trade Platform**

Our Methodology

The Morgan & Co Research Stock Market Indices are market-value weighted indices implying that the indices track the proportion of a stock based on its market value on the stock market. For example, suppose Econet has 10 million shares of a ZWL20 stock and Delta has 1.0 million shares of a ZWL40 stock (*Econet's market cap of ZWL200 million and Delta's market cap of ZWL40 million*). In a market-value weighted index, Econet represents 83.33% (200/240) of the index's value because of its much larger market cap. The market value for each stock is calculated by multiplying its price by the number of shares included in the index, and each stock's weight in the index is determined based on its market value relevant to the total market value of the index. We have used this approach given that it is in line with global standards. For example, global stock market indices such as the S&P 500 are calculated by the weighted average method. Index metrics such as PER and Dividend Yields will be calculated on a market cap weighted basis. The Dividend Per Share (DPS) and Earnings Per Share numbers used are on a Historic Cost basis. In addition, prospective PER ratios will also be computed based on our 12-month Earnings Per Share (EPS) projections.

Base Values and Index Divisor

As prices and market values of the stocks within an index rise and fall, the index reflects this movement using a series of index values. In creating the Morgan & Co Research Indices, we chose 31 December 2020 as our base and 100 as the base value for all the indices. This is because prior to December 2020, the stock market in Zimbabwe experienced a significant level of volatility in the past owing to (i) inflationary pressures, (ii) exchange rate movements and (iii) foreign portfolio investment outflows. Each day, as the market values of the stocks in the index fluctuate based on changes to their prices, the new total market value of the index is divided by the same divisor to produce a new index value as illustrated below;

Day	Index Total Market Value	Divisor	Index Value
Day 1	$970	9.7	100.0
Day 2	$1010	9.7	104.1
Day 3	$995	9.7	102.6
Day 4	$1000	9.7	103.1

The Index Algorithm

$$\sum P_{i,t}Q_{i,t} / \sum P_{i,b}Q_{i,b}(k)$$

Where;

i = *Constituent stocks, b= Base period (31 December 2020),* $\sum P_{i,t}Q_{i,t}$ = *Total value of the companies in the Index,*

$\sum P_{i,b}Q_{i,b}$ = *Total market value on 31 December 2020, k is arbitrarily set to 100, The market value of a stock is computed as the closing price times the number of shares outstanding (P x Q)*

The Index Divisor is determined by dividing the total market value of the index by the base index value of 100. The divisor is therefore a figure that represents the total issued share capital of the index at the base date. The divisor can be adjusted to allow changes in the issued share capital of individual securities to be made without distorting the Index. If a stock is delisted or a stock split occurs, the divisor will be recalculated to be reflective of the new index membership.

The purpose of the index divisor is to maintain the continuity of an index level following the implementation of corporate actions, index rebalancing events or other non-market driven actions. To assure that the index's value, or level, does not change when stocks are added or deleted, the divisor is adjusted to offset the change in market value of the index. Thus, the divisor plays a critical role in the index's ability to provide a continuous measure of market valuation when faced with changes to the stocks included in the index. In a similar manner, some corporate actions that cause changes in the market value of the stocks in an index should not be reflected in the index level. Adjustments are made to the divisor to eliminate the impact of these corporate actions on the index value.

Divisor Adjustments

The key to index maintenance is the adjustment of the divisor. Index maintenance – reflecting changes in shares outstanding, corporate actions, addition or deletion of stocks to the index – should not change the level of the index. Any change to the stocks in the index that alters the total market value of the index while holding stock prices constant will require a divisor adjustment. The increase or decrease is the market value of the stocks being added less the market value of those stocks deleted; define *CMV* as the Change in Market Value. The Divisor adjustments are made using the following formula;

$$Divisor_{New} = Divisor_{Old} + \frac{CMV}{IndexLevel}$$

Where (*CMV/Index Level*) are calculated for each stock and then all the adjustments can be combined into one change to the Divisor.

Necessary Divisor Adjustments

All divisor adjustments are made "after the close" meaning that after the close of trading the closing prices are used to calculate the new divisor based on whatever changes are being made. With prices constant, any change that impacts the total market value included in the index will require a divisor change. Among those changes driven by index management are adding or deleting companies, adjusting share counts and other factors affecting share counts. The following are some of the events that could trigger adjustments to the divisor;

- When a company is added to or deleted from the Index;
- Rights Issues and Entitlement Offers;
- Stock Conversion;
- Splits (sub-division) and Reverse splits (consolidation);
- Scrip issues (Capitalisation or Bonus Issue); and
- Private Investment on Public Equity (PIPE) deals

Overall, Morgan & Co Research will also be responsible for providing notices to market players advising of the timing of any major index adjustments. In addition, constituent companies within the Indices will be reviewed on a quarterly basis. Details of the outcome of the review and constituent changes will also be published by Morgan & Co Research.

Conclusion

In conclusion, the Morgan & Co Stock Market Indices represent an important addition to performance management metrics on Zimbabwean capital markets. In addition, the indices also simplify the equities research process. Instead of having to find relevant companies and study their performance on an individual basis, investors can instead watch a single index. We also envisage the development of Index ETFs on local capital markets on the back of Morgan & Co Indices. ETFs or index funds provide a feasible option to gain exposure to certain markets or sectors without having to place many small orders with a Stockbroker. The cost and diversification benefits of ETFs are also significant for both retail and institutional investors.