Use our Indexing Capabilities to Build Smart Portfolios
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Who is Satrix?

We are a leading provider of passive investment products in South Africa, with over R65 billion in assets under management invested in our wide range of offerings. We manage index-tracking and factor-based (smart beta) portfolios through segregated mandates, exchange traded funds (ETFs) and unit trusts.
Pioneers in index-tracking

We have been tracking market indices since 2000, when we launched the very first exchange traded fund in South Africa, our flagship Satrix Top 40 ETF. Since then we have developed many innovative index-tracking products across a diverse range of asset classes and regions, and together with our expertise in systematic strategies and execution capabilities, we have assisted our clients in efficiently accessing market-linked returns.

Authority in factor investing (smart beta)

Satrix has been managing factor-based portfolios for institutional investors since 2007. Over the years, we have accumulated vast insights into crafting factor-based strategies, which have high predictability and reliability through all market cycles. We have accumulated these insights using our extensive expertise in portfolio construction. Our primary focus in this capability is to empower our clients to achieve their investment objectives through transparent use of factors exposures.

Our clients are our partners

We work with you to solve your investment challenges. Our approach is wholly solutions oriented, where our commitment to understanding our clients’ specific investment needs enables us to precisely tailor solutions to meet their objectives. We therefore work closely with retirement funds, medical schemes, municipalities, state-owned enterprises, as well as other corporate entities and their respective consultants to develop solutions to meet their investment requirements efficiently and simply.

We provide benefits of scale when it comes to operational excellence and trading

We are wholly owned by Sanlam, who provide us with operational scale, sustainable investment in information technology, trading networks and opportunities, stability, and governance excellence. Leveraging off this backing, we offer focused and proven indexing solutions driven by a team of experts who are passionate about indexing solutions to provide investors with successful investment outcomes.
Understanding the source and nature of all risks is pivotal to reaching one’s investment objectives.
How we can help you
We work collaboratively with you, drawing on our quantitative expertise to analyse your needs in greater detail. We offer bespoke research to develop a tailored investment outcome, whether it is delivering a requested index solution, combining your existing portfolio with missing components, or building a customised solution.

Whether you know what you need, or need us to analyse your requirements, we can help you.

<table>
<thead>
<tr>
<th>More specific</th>
<th>More collaborative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Your requirement</td>
<td>We offer</td>
</tr>
<tr>
<td>You know exactly what index you want to track or which factor you’d like exposure to</td>
<td>We offer the index-tracking or factor portfolio, either as a single building block or a multi-asset class portfolio</td>
</tr>
<tr>
<td>You can identify missing components in your portfolio</td>
<td>We analyse your requirements and provide the optimally completed portfolio</td>
</tr>
<tr>
<td>You need a full portfolio analysis and solution</td>
<td>We provide a detailed analysis of risk and factor exposure along with a customised portfolio construction solution</td>
</tr>
</tbody>
</table>

Use our capabilities to build smarter portfolios

if you are looking for

• strategic or tactical exposure to a range of geographies, market segments, asset classes, investment styles, or any combination of factors
• more reliability and predictability from your portfolio performance
• a well-constructed core combined with strategic satellites to enhance returns over time
• an experienced partner to craft a solution that provides transparent, systematic and accountable adherence to investment limits and benchmarks of your choice
Need an index-tracking solution?

If you, like us, are meticulous about matching the return of your portfolio to that of the chosen index as efficiently as possible, we are the people to talk to.

What you want

Some examples of ‘vanilla’ indices that you may require exposure to are the FTSE/JSE All Share Index, the FTSE/JSE SA Listed Property Index or the S&P SA Inflation Linked Bond Index. These are all passive investment offerings that provide market-linked exposure to a wide variety of asset classes or market segments. Historically, the performances of these indices have fared exceptionally well relative to active funds benchmarked to these indices, all at a substantial fee advantage.

We believe an index-tracking investment process should be judged on its ability to:

• Minimise tracking error
• Ensure investability and liquidity
• Manage transaction costs efficiently
• Offer scale and experience

We deliver low-cost options for your chosen index or return objective.

How we do this

For most global investors who want their index fund to deliver exactly the same return as the underlying index, full replication, i.e. holding all the stocks which make up the chosen index in the same proportions as the index, is the better way to go. But for South African investors, full replication may not always be a superior approach, and employing an index fund manager to skilfully trade off the benefit of lower tracking error (return dispersion) with hidden liquidity costs will be key to successful index tracking.
Either full replication or optimised replication can be used to track an index

- **Full replication**: this approach is optimal for indices such as the FTSE/JSE ALSI 40, SWIX 40, and sector-specific indices.
- **Optimised replication**: where it is not practical to hold each and every stock (given high amounts of turnover and trading in smaller and illiquid stocks), we replicate the index using the most representative subset of stocks based on their risk characteristics. Examples include the FTSE/JSE ALSI, SWIX, CAPI, and MSCI World Index.

### The science of tracking an index is based on precision and accuracy.

The daily index-tracking function includes the following fundamental processes; data management (we have fully automated processes), index calculations, portfolio management (execution of trades and daily cash flow management) and performance monitoring (including daily risk and return attribution).

### What we offer

Below are the wide range of listed indices from reputable index providers we track.

<table>
<thead>
<tr>
<th>Index</th>
<th>Asset class</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>FTSE/JSE ALSI 40</td>
<td>Equity</td>
<td>40 largest companies by full market capitalisation listed on the JSE.</td>
</tr>
<tr>
<td>FTSE/JSE SWIX 40</td>
<td>Equity</td>
<td>Same as above, but with a shareholder weighted (SWIX) factor applied. The SWIX free float represents the proportion of a constituent’s share capital that is registered on the SA share register.</td>
</tr>
<tr>
<td>FTSE/JSE All Share</td>
<td>Equity</td>
<td>The index represents 99% of the full market capitalisation of all ordinary securities listed on the main board of the JSE, subject to minimum free float and liquidity criteria.</td>
</tr>
<tr>
<td>FTSE/JSE SWIX All Share</td>
<td>Equity</td>
<td>Same as above, however with a SWIX factor applied.</td>
</tr>
<tr>
<td>FTSE/JSE Capped All Share</td>
<td>Equity</td>
<td>Same as FTSE/JSE All Share, however with a capping factor which ensures that no single stock weighs more than 10% at each rebalancing.</td>
</tr>
<tr>
<td>FTSE/JSE Capped SWIX</td>
<td>Equity</td>
<td>Same as FTSE/JSE SWIX, however with a capping factor which ensures that no single stock weighs more than 10% at each rebalancing.</td>
</tr>
<tr>
<td>FTSE/JSE All Bond</td>
<td>Fixed Income</td>
<td>The index includes the top 20 listed vanilla bonds ranked dually by liquidity and market capitalisation.</td>
</tr>
<tr>
<td>FTSE/JSE Fini 15</td>
<td>Equity</td>
<td>15 largest financial companies by market capitalisation listed on the JSE.</td>
</tr>
<tr>
<td>FTSE/JSE Indi 25</td>
<td>Equity</td>
<td>25 largest industrial companies by market capitalisation listed on the JSE.</td>
</tr>
<tr>
<td>FTSE/JSE Capped Resi 10</td>
<td>Equity</td>
<td>10 largest resource companies by market capitalisation listed on the JSE. Constituent weights are capped at 30% at each quarterly review.</td>
</tr>
<tr>
<td>FTSE/JSE SA Listed Property</td>
<td>Property</td>
<td>20 largest and most liquid real estate investment companies by market capitalisation with a primary listing on the JSE.</td>
</tr>
<tr>
<td>S&amp;P SA sovereign inflation linked bond 1+ index</td>
<td>Fixed Income</td>
<td>A market-value weighted index constructed to track the performance of the South African Rand-denominated inflation linked securities with maturities greater than 1 year.</td>
</tr>
<tr>
<td>S&amp;P SA composite property capped index</td>
<td>Property</td>
<td>A market-value weighted index of all companies in the S&amp;P SA composite index classified as property companies, while ensuring no single stock weighs more than 10% at each rebalancing.</td>
</tr>
</tbody>
</table>
Need a factor-based solution?

You might, if you are struggling with one of the following:
1. A lack of transparency in your chosen investment philosophy or style
2. A shortage of capacity amongst your managers to deliver your desired investment outcome
3. High fees, yet performance that is inconsistent, unreliable, or unpredictable
4. Undesirable or inadvertent risks taken in your portfolio, leading to poor diversification

If the answer to any of these questions is YES, then let us introduce you to factor investing.

What are factors?

Factors are intuitive, well understood and measurable investment ideas that explain stocks behaviour over long periods of time, for example: Value, Quality or Momentum. We combine and construct many different factors and then test to see whether they have predictive power. In our view, a factor also has a strong rationale for delivering its compensating return premium.

What you want

You may be looking for a transparent and efficient exposure to a single or multiple sources of investment styles, in which case we suggest you consider accessing these using a factor-based solution. Whether you are looking for a value style, i.e. exposure to cheap shares (e.g. shares that have low price to book ratios), or a more defensive style such as quality, which tilts toward companies with strong balance sheets and which offer a high return on equity, factor-based portfolios allow you to access these in very efficient and cost-effective ways.
Applications of factor investing: There are many practical applications of factor investing that may interest you, and these may vary by degree of simplicity and allocation. Below we list a few notable ones.

- A very simple application of factor investing is understanding your existing portfolio’s mix of factor exposure as well as pure alpha. This is a useful exercise as many traditional active managers deliver a significant percentage of their active returns via static exposures to factors.
- Another application is portfolio completion, which is the exercise of adding or reducing specific exposures to your portfolio to fill a gap and achieve a targeted portfolio strategy. This application is vitally important to address the client’s specific needs appropriately.
- Another increasingly valuable application is blending factors with allocations to a few factors in order to achieve a diversified equity portfolio, while still exposing your portfolio to each factor’s long-term return premium. This application is important as many single-factor strategies suffer periods of underperformance, and blending factors reduces the risk of being exposed to a single factor and produces substantially more consistent outcomes.
- Another application is building outcomes-based factor portfolios, where multi-factor portfolios are designed to deliver, with high predictability, a specific risk and return outcome through employing targeted combinations of underlying factor exposures. Portfolios can be designed to fulfil a range of roles.

Factor investing is beginning to revolutionise the investment industry.

How we do this

Our approach combines our philosophy, market insights and quantitative research
We combine our expertise with an understanding of your needs and investment constraints to provide you with ways to model, track and combine factors to optimise your investment outcome.

We frame your objectives and develop a risk model to meet these
Once we’ve determined your definition of risk, we can then establish a risk budget and populate that budget with factor-based investment ideas, all while considering each factor’s contribution to risk. We believe that it is critical to have a common understanding of the underlying assumptions in our risk model, which is why we work closely with you to share these in a transparent way.

Which factors can you take advantage of in the South African market?
We have spent significant time and focus on understanding which factors work best in our capital market. We also have a deep appreciation of the optimal ways to harvest each factor, whether it be by extracting a factor exposure in its purest expression, or understanding that having a risk overlay on a factor extraction is important.
While quantitative data is vital to inform which factors work well, a qualitative understanding is needed as to why a particular strategy works.

What we offer

Below are the range of factor-specific opportunities that you can access through Satrix.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Descriptor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Momentum</td>
<td>This solution tracks our proprietary Satrix Momentum index, which is designed to include all shares that exhibit strong price and earnings momentum behaviour. Our extensive research has shown that taking advantage of price trends, but coupling this with identifying companies with corroborating fundamentals, yields strong results.</td>
</tr>
<tr>
<td>Dividend yield</td>
<td>We track two variations of the Dividend Yield factor: the first is the FTSE/JSE Divi Plus index, which focuses on maximising the portfolio’s dividend yield by investing in 30 companies that are expected to pay the best dividends over the next year. The second is our own proprietary index called the Satrix Stable Dividend Fund index, which focuses on stocks which have a strong history of paying consistently-high dividend yields.</td>
</tr>
<tr>
<td>Quality</td>
<td>This solution tracks the S&amp;P Quality South Africa index. The objective of the index is to capture the stock performance of high-quality South African companies based on their future profitability potential, the integrity of their earnings, and their financial robustness.</td>
</tr>
<tr>
<td>Size</td>
<td>This solution tracks the FTSE/JSE Equally Weighted Top 40 index. The index includes the largest 40 companies on the JSE, but each is held in equal weight, i.e. each company is 2.5% of the index.</td>
</tr>
<tr>
<td>Fundamental based</td>
<td>This solution tracks the FTSE/JSE Rafi 40 index, which is designed to include those companies best ranked on fundamental factors. It uses four fundamental measures when ranking a company: sales, cash flow, book value and dividends. This results in a fund which tends to have a ‘value’ tilt as it identifies shares which offer value.</td>
</tr>
</tbody>
</table>
Need a multi-asset solution?

Do you require a multi-asset (balanced) solution, which incorporates each essential asset class for optimal diversification, and is quantitatively designed to meet long-term inflation beating returns? If so, please speak to us.

What you want

You may require a Regulation 28 compliant multi-asset fund that targets a steady growth of income and capital without compromising capital preservation. Achieving this balance is no mean feat, as active managers of multi-asset funds will employ a combination of tactical asset allocation and stock picking—arguably both arduous tasks—to deliver on these investment promises. And while not all multi-asset funds have shown favourable returns, these funds have still seen a significant upswing in popularity over the prior decade on the premise of delivering a diversified offering to clients.

Indexing and factor investing are useful tools to implement asset allocation views.

How we do this

Our approach to multi-asset investing is simple
We combine building blocks of essential asset class indices, and blend them in an optimal allocation. This allocation is a function of long-term prospective returns, structural peer-group allocations and portfolio construction insights, all of which inform an optimal mix.

Our allocations are static
Our view, which is supported by a host of academic and practitioner research, is that strategic asset allocation is the most important decision to performance, contributing to anywhere from 80% to 95% of portfolio returns. Added to this, many empirical studies have found that only a minority of managers possess significant tactical asset allocation skills.

We employ the power of factor investing
Along with its increasing acceptance, multi-asset investing has also seen substantial innovation in portfolio construction. Not only do we employ static allocations to passive building blocks, but we also utilise our research and insights to construct a ‘best view’ blend of factors, and substitute this into the multi-asset portfolio as the equity building block.
We are able to create multi-asset solutions that offer exposure to various local and international asset classes to meet any investment objective and risk budget.

What we offer

Below is the range of multi-asset solutions we offer (all Reg. 28 compliant):

<table>
<thead>
<tr>
<th>Fund</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satrix Balanced Fund</td>
<td>The Satrix Balanced Index Fund offers diversified exposure to all the key local and international asset classes. The local equity component (55%) is our proprietary blend of factor building blocks.</td>
</tr>
<tr>
<td>Satrix Low Equity Balanced Fund</td>
<td>The Satrix Low Equity Balanced Index Fund offers diversified exposure to all local and international asset classes with the weight of the local and international equity component totals 35%. The fund aims to provide a reasonable level of income whilst seeking to preserve capital, in real terms with lower volatility, over a medium to long term period.</td>
</tr>
</tbody>
</table>
Need an international solution?

Do you require access to international returns across various key geographical regions, but are concerned about expertise, operational efficiency or fees? If so, speak to us.

What you want

Some examples of international ‘vanilla’ indices that you may require exposure to are the MSCI World (developed markets), the MSCI Emerging Markets index or the MSCI North America index. These are all passive investment offerings that provide market-linked exposure to a wide variety of geographical regions. Historically, the performances of these indices have fared exceptionally well relative to active funds benchmarked against these indices, all at a substantial fee discount.

Satrix international funds provide you with low-cost exposure to various geographies across world equity markets.
How we do this

The daily index-tracking function includes the following fundamental processes:
Data management: This includes the automated upload of daily portfolio positions of our international funds. Data is housed and hosted by MSCI Barra, and fund profiles and rebalance profiles are pre-setup in the workspace.
Index calculations: Corporate actions and index reviews for all stocks in the universe are updated and viewed daily.
Portfolio management: The portfolio manager evaluates the risk make-up of the fund, cash flow and upcoming events, and a trading strategy is formulated.
Performance monitoring: The portfolio manager checks that loaded trades are executed timeously with minimal price impact.

What we offer

Below is the range of international funds we offer:

<table>
<thead>
<tr>
<th>Fund</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satrix MSCI World Equity</td>
<td>This solution tracks the MSCI World (developed markets) Index, which is made up of the large and mid cap segments in 23 developed markets across the world. We offer this fund in both a ZAR denominated unit trust, or dollar-based UCITS vehicle.</td>
</tr>
<tr>
<td>Satrix MSCI Emerging Markets</td>
<td>This solution tracks the MSCI Emerging Markets Index, which is made up of the large and mid cap segments in 23 emerging markets across the world.</td>
</tr>
<tr>
<td>Satrix UK Equity</td>
<td>This solution tracks the MSCI UK Index, which is made up of the large and mid cap segments in the UK market.</td>
</tr>
<tr>
<td>Satrix Europe ex. UK Equity</td>
<td>This solution tracks the MSCI Europe ex. UK Index, which is made up of the large and mid cap segments in 14 developed markets in Europe.</td>
</tr>
<tr>
<td>Satrix North America</td>
<td>This solution tracks the MSCI North America Index, which is made up of the large and mid cap segments in the United States and Canada.</td>
</tr>
</tbody>
</table>

If you are interested in international factor investing, please contact us.
Five reasons to choose Satrix as your strategic partner

1. **Proven innovation for over 15 years**
   Satrix is a pioneer in the South African index-tracking landscape, having launched South Africa’s first ETF in 2000.

2. **The most experienced team in the market**
   Innovation is at the core of everything we do as we continue to develop products for clients, relying on focused research and years of experience from a very stable team. We have proven expertise in risk management, portfolio analysis and index construction.

3. **World-class systems**
   Our index-tracking system has been developed in-house to ensure we are able to customise and enhance it to suit our diverse client needs. We are able to implement trades in a transparent, cost-effective and risk-controlled way. The scalability offered is crucial in an index-tracking business where operational efficiency is to the benefit of our clients.

4. **Proven retail and institutional expertise across the index-tracking investment spectrum**
   Satrix delivers a range of vanilla and smart beta products across ETFs, unit trusts or segregated portfolios that are specifically tailored for client-specific mandates.

5. **The specialist focus and autonomy of an independent business unit within the scale of Sanlam**
   Satrix is a growing business, wholly owned by Sanlam. A strong brand in the retail space makes an institutional solution more palatable for retirement fund members and other stakeholders. The Sanlam Group ensures best practice, security, governance and operational excellence.
Our investment team

Helena Conradie
Chief Executive Officer
BSc, Msc (Cum Laude), CFA

Johann Hugo
Head of Portfolio Management
BCom (Hons)

Jenny Albrecht
Chief Operating Officer
BCom, CFA

Rick Martin
Chief Financial Officer/Chief Operating Officer (JHB)
BCom (Hons), CA (SA)

Jason Swartz
Head of Portfolio Solutions
BBusSc, MBusSc, CFA

Henriqueco Visser
Chief Technology Officer
BSc (Mathematical Stats)

Duma Mxenge
Business Development Manager
BCom (Hons), FAPM

Lauren Jacobs
Portfolio Manager
BBuscSc (Finance)

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W www.institutional.satrix.co.za

Use our Indexing Capabilities to Build Smart Portfolios
Satrix Managers (RF) (Pty) Ltd (Satrix), a registered and approved Manager in Collective Investment Schemes in Securities and an authorised financial services provider in terms of the FAIS. Collective investment schemes are generally medium- to long-term investments. Unit Trusts and ETFs the investor essentially owns a “proportionate share” (in proportion to the participatory interest held in the fund) of the underlying investments held by the fund. With Unit Trusts, the investor holds participatory units issued by the fund while in the case of an ETF, the participatory interest, while issued by the fund, comprises a listed security traded on the stock exchange. ETFs are index tracking funds, registered as a Collective Investment, and can be traded by any stockbroker on the stock exchange or via Investment Plans and online trading platforms. ETFs may incur additional costs due to it being listed on the JSE. Past performance is not necessarily a guide to future performance and the value of investments / units may go up or down. A schedule of fees and charges, and maximum commissions are available on the Minimum Disclosure Document or upon request from the Manager. Collective investments are traded at ruling prices and can engage in borrowing and scrip lending. Should the respective portfolio engage in scrip lending, the utility percentage and related counterparties can be viewed on the ETF Minimum Disclosure Document. The Manager does not provide any guarantee either with respect to the capital or the return of a portfolio. The index, the applicable tracking error and the portfolio performance relative to the index can be viewed on the ETF Minimum Disclosure Document and/or on the Satrix website. Performance is based on NAV to NAV calculations of the portfolio. Individual performance may differ to that of the portfolio as a result of initial fees, actual investment date, dividend withholding tax and income reinvestment date. The reinvestment of income is calculated based on actual distributed amount and factors such as payment date and reinvestment date must be considered.