glacier
by Sanlam

GLACIER AI FUNDS

In a crowded multi-asset market place, it is vital to be able to provide differentiated investment solutions that stand out from the masses.

Glacier's AI Funds were designed to eliminate human emotions, actively adapt to changing markets and help to materially improve the consistency of achieving investment goals with significantly reduced downside risk.

The funds utilise an artificial intelligence machine-learning investment engine that dynamically alters the funds' asset allocation in accordance with market movements. The aim is to minimise the depth and breadth of draw-downs, optimise the risk-return balance and maximise investment outcomes.

The Glacier AI Flexible Fund of Funds was launched in 2018 and on the back of its success, the Glacier AI Balanced Fund was launched in 2021.

What Is Artificial Intelligence?

AI is the theory and development of computer systems that are able to perform tasks that normally require human intelligence.

These systems are able to perform specific tasks better or quicker than a human

Man with machine is far more efficient than man alone

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THE RELEVANCE OF AI IN INVESTMENTS

Markets are changing:
- They move faster than before
- Conventional valuation and asset allocation theories can't keep up

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AI CAN ENHANCE INVESTMENT STRATEGIES BY:
- being SELF-LEARNING & ADAPTIVE: The AI engine can quickly adapt to changing environments and markets and self-adjust its modus operandi to minimise investment risk
- being PREDICTIVE: The AI engine can identify and predict evolving market behaviour
- ELIMINATING human error and emotions

2.5 quintillion (2,500,000,000,000,000,000,000bz) bytes of data is created every day.
On its own, big data is of no use – Artificial Intelligence (AI) uses computers to extract meaningful information from data.

AI capability

The Glacier AI Funds utilise a fully automated artificial intelligence (AI) investment engine that uses multiple machine learning technologies to:
1. Learn from large sets of data
2. Deduce evolving relationships within and among those data sets
3. Predict anticipated risk in the market based on a level of analysis that is far beyond human capacity
4. Proactively reallocate on a fortnightly basis with the objective of capital loss prevention through risk mitigation

Artificial Intelligence has the ability to react faster than traditional strategies to changing market conditions.

The Glacier AI Balanced Fund

FUND FACTS

- Name: Glacier AI Balanced Fund
- ASISA Category: SA – Multi Asset – High Equity
- Absolute benchmark: SA CPI plus 5% over rolling 5 years
- Relative benchmark: SA – Multi Asset – High Equity Category Average
- Limitations: Max 75% equity exposure, max 25% property exposure, max 30% foreign exposure

- Underlying instruments: Local and international Exchange Traded Funds (ETFs), direct local equities and direct local bonds
- Artificial Intelligence (AI) strategy and trade signal provider: Sanlam Global Investment Solutions (SGIS)
- Asset management and implementation: Satrix, a division of Sanlam Investments
- Strategy and product owner: Glacier Management Company
- Fees: 0.78% (AMC), 0.82% (TER)* to 0.92% (TER)**

*Based on historic average ETF exposure | **Based on maximum ETF exposure

OBJECTIVE AND RISK PROFILE

The fund aims to minimise drawdowns and when they do occur, to recover as quickly as possible, using artificial intelligence (AI). It aims to provide equity-like returns over a market cycle at lower levels of risk. It targets a return of at least 5% above CPI, measured over rolling five-year periods. It aims to combine active management with a passive underlying strategy to outperform peers over time.

The mandate

- A single-managed fund that combines active management with passive underlying instruments by investing in local and international Exchange Traded Funds, as well as direct local equities and bonds
- Maximum total ETF exposure is 80%, with no more than 20% exposure to a single ETF
- South African exposure will be between 70% and 100%
- global exposure will be no greater than 30%

Allocations

	EQUITIES	BONDS	PROPERTY
LOCAL (Satrix)	Direct (no ETF) SWIX Top 40	Direct (no ETF) S&P SA Sovereign Bond 1+ Year Index	Property (ETF)
GLOBAL (iShares)	MSCI World ESG Enhanced MSCI EM ESG Enhanced	Global Aggregate Bond US TIPS	Global Property

The Glacier AI Flexible Fund of Funds

The Glacier AI Flexible Fund of Funds was launched in 2018 and has successfully fulfilled its objectives from the outset.

- **Name:** Glacier AI Flexible FoF
- **ASISA Category:** SA - Multi Asset - Flexible
- **Absolute benchmark:** SA CPI plus 5% over rolling 3 years
- **Relative benchmark:** SA - Multi Asset - Flexible Category Average
- **Limitations:** no asset class limitations, except max 30% foreign exposure
- **Underlying instruments:** Local and international Exchange Traded Funds (ETF)

- **Artificial Intelligence (AI) strategy and trade signal provider:** Sanlam Global Investment Solutions (SGIS)
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OBJECTIVE AND RISK PROFILE

The portfolio aims to provide superior capital growth over the medium to long term within a flexible mandate, utilising Artificial Intelligence (AI). It targets a return of at least 5% above CPI, measured over rolling three-year periods.

The portfolio aims to limit downside risk over the medium to long term, but there might be volatility over the short term.

A fund of funds is a portfolio that invests in portfolios of collective investment schemes that levy their own charges, which could result in a higher fee structure for the fund of funds.

THE MANDATE

- The AI machine will flexibly allocate between all major asset classes and geographies
- No limits on asset class exposure – can go up to 100% in equities
- No limits on South African exposure
- 30% maximum global exposure – access to US, Europe, Japan, Emerging Markets (including China), global property and global bonds.

THE PROCESS

AI machine processes and analyses ETF price data

Takes historical prices of assets, transforms/ processes them and creates alternative historical paths for each.

AI machine makes ETF price prediction

Each transformed data set is put through **600 analysts** who each predicts the future price behaviour of the asset.

For each asset, the head analyst monitors the behaviour of each analyst by evaluating metrics that measure their predictive accuracy.

Based on this, it generates a single asset price prediction from a subset of the most effective analysts. This results in a set of price predictions for all assets.

Risk manager makes optimal allocation in the portfolio

Risk manager takes price predictions, looks at market behaviour, and attributes weights across assets to minimise expected capital loss and time-in-loss while meeting minimum return objectives of portfolio.

The advantages of AI

A.I. Powered
data driven, knowledge-discovery autonomously adapts to evolving market conditions (week-in-week-out)

No Key-Man Risk
human bias and emotion

Exponential amplification
of analytical capacity through thousands of virtual analysts

Bid Data
High-speed analysis to identify assets that could provide maximum gain while protecting capital

Constantly learning
and adapting

Consistent application
Investment process