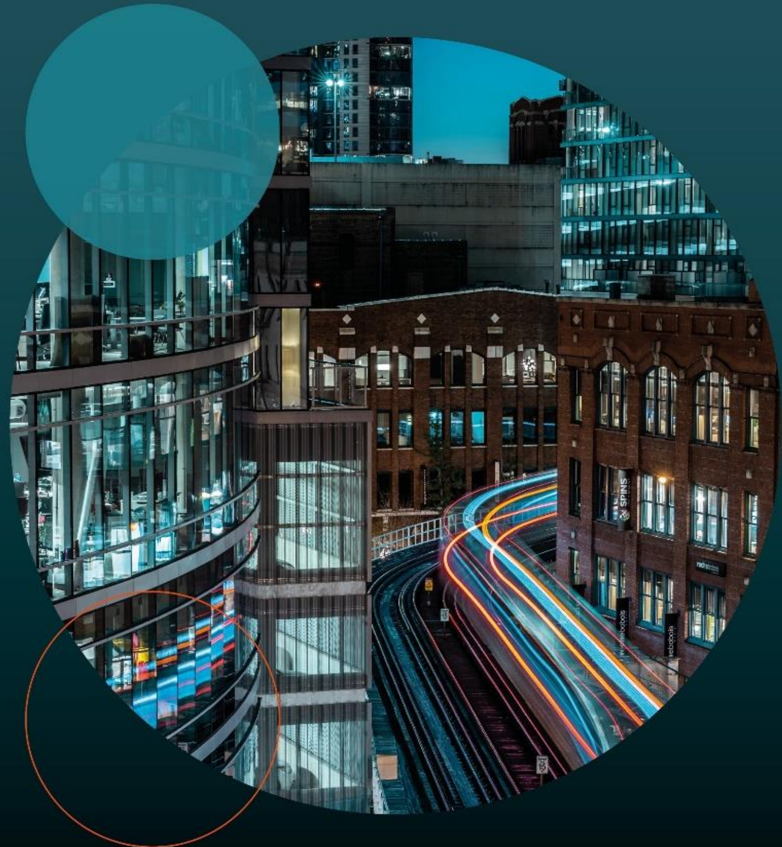
# LDI Manager Watch™ Survey for the month ending June 2024



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# LDI MANAGER WATCH™ SURVEY

## HOW TO INTERPRET AND USE THIS SURVEY

**LDI is a complex area of investment. AF strongly recommends that investors obtain professional assistance in determining whether a specific LDI strategy or LDI manager is appropriate for them. The guide below is not sufficiently comprehensive to enable most investors to reliably choose an LDI manager without further assistance. The guide will help investors appreciate the drivers of differential performance between managers and strategies at specific times in the market.**

**General**

The LDI survey reports on the outperformance LDI asset managers deliver relative to a liability based benchmarks. The survey provides simple numerical measures that encapsulate the risk these managers have exposed clients to as well as the outperformance they have acheived. The survey reports on the performance of 'composites', or groups of portfolios with similar characteristics.

Most LDI hedging techniques are based on algorithmic solutions (or rules based mathematical techniques), suggesting that ineffective hedging techniques will very rapidly show up in this survey. The skill set of managers offering low risk solutions, tracking liabilities closely with tight mandate restrictions will generally show up over even short periods such as one year. It is however always preferable to evaluate these managers over a longer period if this is available. The period used for analysis should include at least one large shift in yield curves. More than one large shift in yields has occurred during the last twelve months; the short history available in this survey is hence adequate for judging manager's ability to create effective hedges.

In addition to focusing on tracking liabilities, some managers target outperformance of liabilities by investing in riskier asset classes such as credit (and potentially view taking on the markets). An evaluation of the approach used and the skills of each manager is required to assess how likely these managers are to deliver alpha in the future. The past performance of these managers can be used as part of this evaluation. Longer periods will be required to accurately form a view of how good the manager is at choosing and managing credit. The exact length will depend on the strategy used, but may require five years or longer. Many LDI managers do not have a track record this long. It is useful in such cases to look at the manager's performance in ordinary credit portfolios.

Investors also need to consider the time frame over which they measure risk when choosing a manager and more importantly, in setting their mandates, mandate restrictions and portfolio targets. For example, listed companies may need to manage pension fund or other sinking fund risks over a very short period to match their reporting requirements. Pension funds that are valued once every three year, with a larger risk appetite and a desire to target growth could use a longer evaluation period such as three years.

**Specific measures**

Liability outperformance shows how much value, in excess of the growth in liabilities, the manager was able to add for their client. All else being equal, a larger outperformance is preferable. Investors should consider a sufficiently long performance period to smooth over interest, credit and inflation cycles if they are primarily concerned with the longer term performance of their liability hedging activities. For example, certain investors may require close tracking on a monthly basis, whilst others may be more concerned with longer term value add. Investors should therefore give adequate attention to manager performance over periods that match their own reporting, risk evaluation and risk tolerance frequency. Consideration should be given to all the stakeholders associated with the liability in reaching this decision.

Liability convexity and duration are technical measures of certain liability characteristics. In general, the larger these quantities are, the more difficult it is to create an effective hedge. These measures can hence be seen as one of the constraining factors governing managers' efficacy in hedging and adding outperformance. Performance is therefore not necessarily comparable between managers with vastly different liability durations and convexities. A typical defined benefit pensioner liability increasing with full inflation annually has a duration between nine and twelve years at current yields.

The % government bonds shows the portion of the manager's portfolios invested in government issued bonds. All else equal, the lower this percentage is, the greater one would expect the long term outperformance of liabilities to be. This figure may also reflect mandate constraints regarding the inclusion of credit.

The % unlisted exposure shows the proportion of the portfolio which is invested in unlisted instruments. Unlisted instruments may (but are not necessarily) subject to poor valuations or infrequent valuations by the manager. Many unlisted instruments such as swaps may be valued independently by a counterparty bank, partially mitigating this risk.

A brief description of the benchmark used is given for each composite. Only similar composites should be compared directly. For example, swap based and bond based benchmarks are not directly comparable.

Portfolio as a percentage of liability shows the size of the assets managed by the manager relative to the size of the liability the manager is mandated to hedge. For example, a pension fund with a R100 liability that gives their LDI manager R50 and invests R50 into the equity market would have a proportion of 50%. All else being equal, the larger this portion is, the easier it is to hedge a liability. This is hence an additional constraining factor on managers. Portfolios in the survey have been grouped into bands expected to offer similar hedging efficacy.

The minimum funding level shows the lowest funding level that would have applied over various time periods, assuming the investor's liabilities and assets were equal at the start of the period. Assuming all else is equal, larger minimum funding levels are preferable. A minimum funding level is an important risk measure in evaluating how well a manager can manage downside risk relative to the investor's liability.

Tracking error shows the dispersion of portfolio returns relative to the investor's liability. All else being equal, a lower tracking error is preferable. Unfortunately tracking error captures outperformance (desirable) as well as underperformance (undesirable). Where close liability tracking is not essential, the minimum funding level is a superior measure of risk. For example, a manager providing a high degree of outperformance and high minimum funding levels may be a suitable choice even if this manager has a high tracking error.

The risk adjusted outperformance shows the extent to which managers outperform liabilities, adjusted for the tracking error or risk they have introduced. All else equal, a larger risk adjusted return is preferable. The risk adjusted return may however be an inappropriate measure for certain investors with specific liability objectives. For example some risk tolerant investors wish to maximise long term outperformance of liabilities. Such investors should focus on outperformance of liabilities in choosing a manager. Other risk averse investors may wish to track their liabilities as closely as possible. Such investors should focus on choosing a manager based on tracking error.

# LDI MANAGER WATCH™ SURVEY

COMMENTARY

**General**

Longer-dated nominal bond yields generally fell during the second quarter ("Q2") of 2024. More details on specific yield curve movements are in their dedicated sections below. The unfolding history of these yields influence Liability Driven Investment (LDI) performance over time. The key news items over the quarter are below:

- The current global economic environment, especially for LDI assets like bonds, is driven by high inflation and the resulting higher interest rates from the world's central banks.
- The year 2024 is a year of elections, with over half the world population able to cast their votes at various polls around the world. South Africa's election, and subsequent formation of the Government of National Unity (GNU), had positive short-term impacts for financial markets.
- Inflation continued to be a major concern for global economies, including in South Africa. The South African Reserve Bank's (SARB's) main target is to keep local inflation between 3.0% and 6.0%. South African consumer price inflation (CPI, "inflation") was 7.2% over 2022, higher than the target band. In 2021, it was 5.9% (source: *StatsSA*).
- This quarter, most of the world's major central banks maintained their higher interest rates in the current high inflation environment.
- The US inflation index reduced in Q4 of 2023, bringing the total inflation to 3.4% over 2023. The large reduction in annual inflation over 2023 results from recent US Fed hawkishness. However, this positive effect is not large enough to achieve the US Fed target of 2.0%.
- The Fed maintained their interest rate of 5.50% for a third consecutive quarter. This is the highest Fed Funds rate since before the global financial crisis of 2008.
- Consumer Price Inflation (CPI) in the European Union ("EU") was 9.2% over 2022 and 5.0% in 2021. CPI in the United Kingdom ("UK") was 10.5% in 2022 and 5.4% in 2021. Inflation remains a concern in these areas and their central banks are hawkish in nature, like the SARB and the US Fed, and have increased interest rates.
- The Bank of England ("BoE") maintained its interest rate at 5.25%.
- The European Central Bank (ECB), unlike the SARB, US Fed, and BoE, decreased its interest rate from 4.50% to 4.25%. This is a sign that their view may be shifting from hawkish (focussed on controlling inflation) to dovish (focussed on promoting economic growth, actioned by reducing rates).
- This reduction by the ECB may have been motivated by the decrease in annual inflation, with rolling 12-month inflation being below 3.0% for each month in 2024.
- The ECB previously raised their rate ten consecutive times since August 2022, when it was 0.00%.
- The People's Bank of China ("PBOC") maintained their interest rate at 3.45%.
- Contrasting the local and global hawkishness, the People's Bank of China ("PBOC") has a lower interest rate at the end of 2023 compared to the beginning. Since the global COVID shutdown, the PBOC has only decreased interest rates. With the need to protect future levels of growth being more concerning to the PBOC than the need to curb inflation, their position is "dovish" – the opposite of hawkish.
- South African markets had a negative Q1, but the reaction to the formation of the new South African government buoyed sentiment, resulting in positive year-to-date performance of 5.8% in the All Share Index (ALSI) and 5.6% in the All Bond Index (ALBI).
- Global markets had a tougher Q2 in Rand terms, with negative performance in both the MSCI All Countries World Index (ACWI) and the Citi World Government Bond Index (WGBI) of -0.8% and -5.2% respectively. However, the ACWI is up for the year-to-date at 11.4%.
- The continued military conflict in Ukraine involving Russia and Ukraine may continue to influence markets over 2024, with volatility in markets being exacerbated by the continued violent conflict in Israel and Palestine.

Bond managers continue to face the challenges of a volatile market, where developed nation bonds have lower yields and emerging market bonds have higher risks.

Positive performance would be expected to have favourable effects for LDI hedging strategies, since many defined benefit funds have elected to combine interest- and inflation-hedging with growth assets (like SA and global equities).

Liabilities and their immunising bond (LDI) portfolios have performed similarly over the quarter, so the rising values of growth assets would, generally, lift funding levels, depending on the relative level of de-risking.

**Inflation-linked bond section**

Real yields (I2050) in the long end increased by 5 basis points from 5.09% at the end of Q1 to 5.14% at the end of Q2 (June 2024). Yields generally increased across the long and short ends of the real yield curve.

High real yields present an opportunity for funds to hedge real liabilities, including those that have not been able to do so in the past. It may be worth re-visiting this topic if you are a decision-making agent for an entity with defined liabilities (such as a defined benefit retirement fund or an insurer) without existing LDI assets. However, this opportunity would need to contrast against to the potential loss of higher expected returns (due to reduced allocations to growth assets like equities and property). We recommend discussing this with an LDI expert or your valuator.

Higher yields also benefit funds transitioning unhedged active members into a hedged pensioner pool, as the transfer (and subsequent expansion of the LDI hedge) may occur at a higher yield than was previously possible.

**Nominal bond section**

Long-dated nominal bond yields decreased over the quarter with bond yields of the R2040 dropping by 87 basis points from 12.91% at the end of Q1 to 12.04% at the end of Q2 (June 2024).

Considering the 2030 maturity (R2030), the yields in the medium end of the curve also decreased. Yields on the R2030 dropped by 64 basis points from 10.61% at the end of Q1 to 9.97% at the end of Q2 (June 2024). Yields in the short term generally remained flat. In combination, the result is a flatter yield curve compared to last quarter.

**Conclusion**

Manager returns were diverse over the quarter. Given the broad range of characteristics seen in the participants' composites, this is as expected. For example, the levels of allocations to credit and the benchmark durations vary notably.

Participating managers broadly coped well with a challenging and volatile environment, with most delivering positive (or zero) outperformance. However, one can only draw limited conclusions from the small sample of participating LDI managers in the Survey, and we recommend caution when analysing these managers. Investors should seek bespoke advice when considering LDI.

| BEE AND ESG DETAILS AS AT THE END OF JUNE 2024 | | | | | | |
|---|---|---|---|---|---|---|
| Manager | Empowerment Rating | Total empowerment Shareholding (%) | Empowerment Shareholding | | We endorse/are signatories to: | |
| | | | Ownership/Partner(s) | Empowerment shareholding composition as a percentage of total empowerment ownership | CRISA (Code for Responsible Investing in South Africa) | PRI (United Nations Principles for Responsible Investing) |
| Ashburton | Level 1 | 30.10% | BEE Partners Shareholding<br>Other<br>Royal Bafokeng Holdings (Pty) Ltd | 17.28%<br>70.76%<br>11.96% | Yes | Yes |
| Ninety One | Level 1 | 36.14% | Ninety One Limited | 100.00% | Yes | Yes |
| STANLIB | Level 1 | 35.75% | Liberty Holdings Limited | 100.00% | Yes | Yes |

# LDI MANAGER WATCH™ SURVEY

Objective - The portfolios included in this survey represent liability-driven investment funds with benchmarks expressly referencing investor liabilities.

| INVESTMENT DATA TO THE END OF JUNE 2024 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | OUTPERFORMANCE OF LIABILITY | | | | | LIABILITY CHARACTERISTICS | | | | PORTFOLIO CHARACTERISTICS | |
| | 3rd Party Assets | Month | Quarter | 1 Year | 3 Years (p.a.) | 5 Years (p.a.) | Liability benchmark duration | Liability benchmark convexity | % exposure to credit assets | % unlisted exposure | Portfolio Size (R m) | Benchmark |
| INFLATION-LINKED BOND YIELD CURVE BENCHMARKING | | | | | | | | | | | | |
| Ashburton | Yes | -1.01% | -0.37% | -0.43% | -0.20% | 0.06% | 5.95 | 58.18 | 1.70% | 0.00% | 682.97 | Liability benchmark, zero spread |
| STANLIB Composite 1 | Yes | 1.19% | 2.22% | 6.78% | 6.92% | 6.38% | 7.51 | 96.15 | 100.00% | 12.20% | 1 570.82 | Liability benchmark, zero spread |
| STANLIB Composite 3 | | -0.05% | -0.11% | 0.05% | 0.24% | 0.25% | 11.52 | 218.43 | 0.00% | 0.00% | 897.56 | Liability benchmark, zero spread |
| | | | | | | | | | | | | |
| NOMINAL BOND YIELD CURVE BENCHMARKING | | | | | | | | | | | | |
| Ninety One | Yes | 0.00% | 0.00% | 0.00% | 0.00% | 0.00% | 2.07 | 9.00 | 0.00% | 0.00% | 5 163.73 | Liability benchmark, zero spread |
| STANLIB Composite 2 | Yes | 0.13% | 0.40% | 0.58% | 0.66% | 0.84% | 6.76 | 80.11 | | 0.00% | 500.70 | Liability benchmark, -25bps spread |
| | | | | | | | | | | | | |
| **TOTAL** | | | | | | | | | | | **8 815.79** | |
| INDICES | | | | | | | | | | | | |
| All Bond Index | | 5.24% | 7.49% | 13.73% | 7.62% | 7.82% | | | | | | |
| JSE ASSA SA Gov ILB Index | | 2.85% | 2.38% | 9.02% | 6.88% | 6.36% | | | | | | |
| STeFi | | 0.67% | 2.06% | 8.55% | 6.48% | 6.06% | | | | | | |

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| INVESTMENT DATA TO THE END OF JUNE 2024 | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| RISK STATISTICS | | | | | | | | | | | | |
| | LDI portfolio as a percentage of liability (P = Physical / E = Effective) | | | | Minimum funding level assuming an artificial starting level of 100% at the start of the period | | | | Tracking error (annualised) | | | |
| | <25% | 25-50% | 50-75% | >75% | Quarter | 1 Year | 3 Years | 5 Years | Quarter | 1 Year | 3 Years | 5 Years |
| INFLATION-LINKED BOND YIELD CURVE BENCHMARKING | | | | | | | | | | | | |
| Ashburton | | | PE | | 99.63% | 99.43% | 99.27% | 100.08% | 2.68% | 1.36% | 1.00% | 2.05% |
| STANLIB Composite 1 | | | P | E | 100.33% | 101.07% | 100.58% | 99.92% | 1.49% | 2.20% | 1.83% | 1.76% |
| STANLIB Composite 3 | | | | PE | 99.89% | 99.95% | 100.45% | 99.92% | 0.24% | 0.19% | 0.31% | 0.60% |
| | | | | | | | | | | | | |
| NOMINAL BOND YIELD CURVE BENCHMARKING | | | | | | | | | | | | |
| Ninety One | | | | PE | 100.00% | 100.00% | 100.00% | 100.00% | 0.00% | 0.00% | 0.00% | 0.00% |
| STANLIB Composite 2 | | | | PE | 100.23% | 100.06% | 99.87% | 99.80% | 0.32% | 0.53% | 0.39% | 0.62% |

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| INVESTMENT DATA TO THE END OF JUNE 2024 | | | |
|---|---|---|---|
| | 1 Year | 3 Years (p.a.) | 5 Years (p.a.) |
| INFLATION-LINKED BOND YIELD CURVE BENCHMARKING | | | |
| Ashburton | -0.31 | -0.20 | 0.03 |
| STANLIB Composite 1 | 3.09 | 3.79 | 3.63 |
| STANLIB Composite 3 | 0.28 | 0.80 | 0.42 |
| | | | |
| NOMINAL BOND YIELD CURVE BENCHMARKING | | | |
| Ninety One | Zero tracking error | Zero tracking error | Zero tracking error |
| STANLIB Composite 2 | 1.09 | 1.69 | 1.36 |

# LDI MANAGER WATCH™ SURVEY

## EXPLANATORY NOTES



**General :**

Managers are ranked from highest to lowest active return. In some cases rankings may be different due to return differences disguised by the rounding. Rankings are purely for illustrative purposes.

**Statistical Definitions :**

The Median is the value above or below which half the managers fall.

The Upper Quartile is the value above which one quarter of the managers fall.

The Lower Quartile is the value below which one quarter of the managers fall.

**Risk Analysis Definitions :**

"Active return" is the return earned by the manager in excess of the benchmark, measured geometrically.

**"Active Return" is a measure of the value that the manager has added or detracted over the benchmark return.**

"Risk adjusted return" is the annualised standard deviation of the monthly "Active Returns".

**"Risk adjusted retun" is a measure of the variability of the manager's returns relative to the benchmark returns.**

"Minimum funding level" is the minimum cummulative active return during the measurement period added to one.

**"Tracking Error" is a measure of the manager's ability to manage funding level risks.**

"Prescribed Duration Measure" is the average of the time at which liability cashflows are paid, weighted by the proportion of present value paid at each time.

Prescribed Duration Measure = $\frac{\sum_{t \ in \ T} PV(t) * t}{\sum_{t \ in \ T} PV(t)}$

**"Prescribed Duration Measure" is one of many factors affecting the difficulty of hedging a liability or adding outperformance. In general, the larger this value, the more challenging the mandate will be.**

"Prescribed Convexity Measure" is the average of the squares of the times at which liability cashflows are paid, weighted by the proportion of present value paid at each time.

Prescribed Convexity Measure = $\frac{\sum_{t \ in \ T} PV(t) * t^2}{\sum_{t \ in \ T} PV(t)}$

**"Prescribed Convexity Measure" is one of many factors affecting the difficulty of hedging a liability or adding outperformance. In general, the larger this value, the more challenging the mandate will be.**