Pie Funds

Slice of Pie

KEEPING YOU UP TO DATE WITH PIE FUNDS AND THE MARKETS

ISSUE 183 • NOVEMBER 2023

Have interest rates peaked?

A MESSAGE FROM MIKE

SMALL CAPs are on SALE

Pie Funds

"We exist to make money for clients, so performance matters more than growing our customer base."

Mike Taylor
Founder & CIO

A MESSAGE FROM MIKE

SMALL CAPs are on SALE

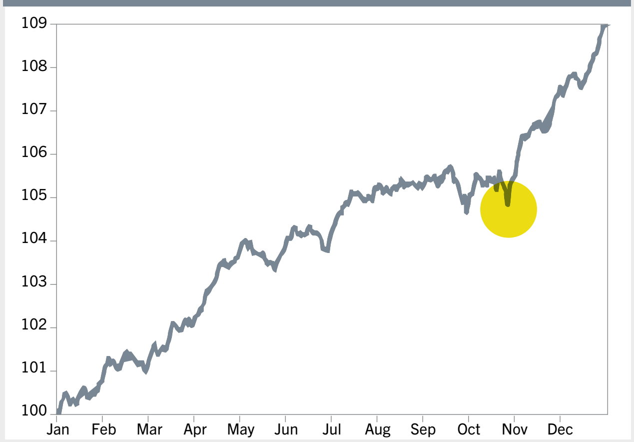
I'm certainly glad to have the month of October behind us. Geopolitical risks and higher interest rates sent the market into a tailspin.

Fortunately, as November has commenced, seasonally we've moved into a period which has historically been a positive time for markets, and sure enough, right on cue, the winds have shifted.

If you have had the time to attend one of our investor series events over the last two weeks, you will recall that one of the key themes of my presentation was that markets can turn on a dog whistle. The two examples I showed of bear markets that were induced by a higher interest rate policy, 1980 and 2018, illustrated that rebounds can be very swift once it becomes clear that rates have peaked for the cycle and financial conditions are easing. Please email the team if you would like a copy of the presentation, and the videos will be available shortly with our mid-month Market Update. In both of these examples, the S&P 500 recovered all off its bear market fall in a 2-3 month period and in the 2018 case, the market bottomed a full 6 months before the first rate cut. At the start of November the US small cap index, the Russell 2000 rallied 7% in 3 days, which would eclipse any annual pre-tax return Term Deposits are currently offering. Cash is a great tool, but shifting to cash, 2-3 years into a bear market is not a good investment strategy. Is this the top in rates and a bottom for stocks? We won't know that until after the fact, but it's a healthy place to start the conversation.

With markets having rejected a 5% yield on the US 10 treasuries during October, and a similar scenario

S&P 500 seasonality 1950 - 2022



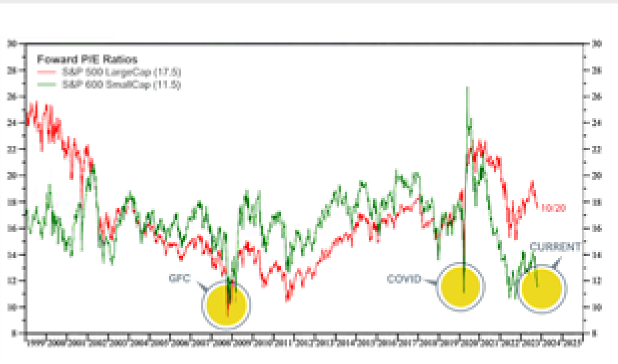
Source: *Goldman Sachs*

playing out around the world, there is certainly a strong argument to mount that rates have peaked. We believe that inflation will continue to moderate, the labour market will soften and higher interest rates will impact both consumers and small businesses. Fortunately, we do not think this will lead to a deep recession, but these conditions should give the FED and other Central Banks, the legitimacy to turn more dovish in 2024. This, combined with a bottoming of the inventory cycle, should turn the stock market headwind into a tailwind again. However, due to budget deficits and an oversupply of Government debt, without QE or a deep recession, we don't foresee interest rates falling back anywhere near where they were in 2021. So yes, rates are now higher for longer, but perhaps not as high as they currently are.

I also highlighted during my presentation the significant opportunity that exists in small caps, which are not only cheap in a relative sense vs large caps, but also cheap in an absolute sense. The market, particularly in Europe, has simply become too bearish, and globally small caps have been out of favour. The Wall Street Journal called small caps, “almost a buy”, because nobody wants to be first, let alone early. However, we believe there is a significant margin of safety at present for small cap investors and that today represents the best buying opportunity for small caps in 30 years, except for the depths of the GFC.

Small caps are Cheap

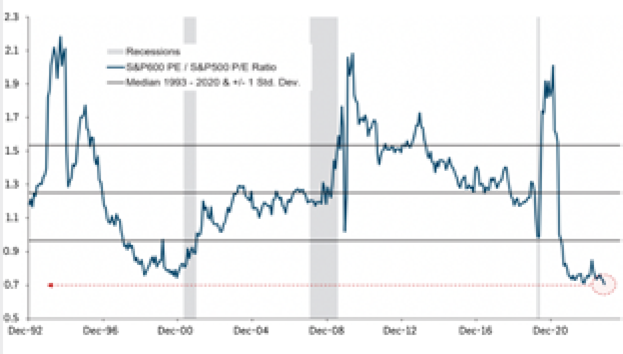
Forward P/E Ratios For S&P Stock Price Indexes* (Weekly)



***Source**: yardeni.com*

P/E Ratio: S&P600 / S&P500

Based on 12-Month Trailing EPS



***Source:** Bloomberg, William Blair Equity Research*

And finally, the team thoroughly enjoyed catching up with so many of you around the country over the last two weeks. Thank you for your attendance and feedback. We are thrilled that the continued outstanding performance of Pie Australasian Dividend Growth Fund has again been recognised, named as a finalist for Research IP - Australasian Equities Fund of the Year, which we won two years ago. For those who couldn’t join us, I am excited to announce the launch of two new products in early December; the Pie Property & Infrastructure Fund and the Pie Fixed Income Fund. We talk a lot about diversification and with current conditions and feedback from investors, we believe the timing is right to make these asset classes available to our clients. This will open new options for investors to access these asset classes individually or as part of a wider diversified portfolio.

Thank you again for your support. If you have any questions, please don’t hesitate to email me on mike@piefunds.co.nz

Mike Taylor
Founder and Chief
Investment Officer

Information is current as at 31 October 2023. Pie Funds Management Limited is the manager of the funds in the Pie Funds Management Scheme. Any advice is given by Pie Funds Management Limited and is general only. Our advice relates only to the specific financial products mentioned and does not account for personal circumstances or financial goals. Please see a financial adviser for tailored advice. You may have to pay product or other fees, like brokerage, if you act on any advice. As manager of the Pie Funds Management Scheme investment funds, we receive fees determined by your balance and we benefit financially if you invest in our products. We manage this conflict of interest via an internal compliance framework designed to help us meet our duties to you. For information about how we can help you, our duties and complaint process and how disputes can be resolved, or to see our product disclosure statement, please visit www.piefunds.co.nz. Please let us know if you would like a hard copy of this disclosure information. Past performance is not a guarantee of future returns. Returns can be negative as well as positive and returns over different periods may vary.

Market Watch

1000 DAY BEAR MARKET - SURVIVING ‘THE GREAT MALAISE’

Founder & Chief Investment Officer Mike Taylor and the NZ Herald’s Liam Dann discuss the latest in markets.

Monthly Updates

KEEPING YOU UP TO DATE WITH PIE FUNDS AND THE MARKETS

Funds Snapshot

Monthly Update as at 31 October 2023

AUSTRALASIAN GROWTH | GLOBAL GROWTH | DIVERSIFIED

FUND DETAILS

	Fund Status	Inception Date	Unit Price	Standard Withdrawal Period	Lead Portfolio Manager(s)	Co-Portfolio Manager
Australasian Growth	OPEN	Dec-07	$6.25	15 working days	Michael Goltsman	Mike Ross
Australasian Dividend Growth	OPEN	Sep-11	$3.84	10 working days	Mike Ross	Michael Goltsman
Australasian Emerging	CLOSED	Apr-13	$5.31	15 working days	Kent Williams	Michelle Lopez
Australasian Growth 2	OPEN	Aug-15	$2.07	10 working days	Michelle Lopez	Kent Williams
Global Growth	OPEN	Sep-13	$2.16	10 working days	Guy Thornewill*, Toby Woods* & Mike Taylor	
Growth UK & Europe	OPEN	Nov-16	$1.50	10 working days	Guy Thornewill*, Toby Woods* & Mike Taylor	
Global Growth 2	OPEN	May-18	$1.11	Up to 5 working days	Guy Thornewill*, Toby Woods* & Mike Taylor	
Conservative	OPEN	Apr-15	$1.13	Up to 5 working days	Mike Taylor & Travis Murdoch	
Chairman's**	OPEN	Sep-14	$2.06	15 working days	Mike Taylor	Michelle Lopez

**Guy Thornewill and Toby Woods are responsible for research and analysis*
***Minimum investment is $500,000*

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	10 yrs (p.a.)	Annualised since inception
Australasian Growth	-7.3%	7.1%	-4.2%	4.6%	2.9%	6.5%	12.3%
Australasian Dividend Growth	-4.8%	5.6%	11.7%	9.4%	9.9%	10.9%	15.0%
Australasian Emerging	-7.6%	5.9%	0.8%	9.0%	8.5%	12.8%	17.2%
Australasian Growth 2	-5.4%	-4.4%	-6.0%	4.6%	6.2%		9.3%
Global Growth	-7.0%	-2.7%	2.9%	6.5%	8.3%	8.0%	7.9%
Growth UK & Europe	-4.4%	-4.0%	2.8%	4.4%			6.1%
Global Growth 2	-2.9%	2.9%	0.6%	3.8%			2.0%
Conservative	-0.5%	4.9%	0.7%	2.2%	2.7%		3.3%
Chairman's	-5.4%	0.7%	1.6%	6.2%	6.7%		8.3%

Returns after fees but before individual PIR tax applied

Funds Snapshot

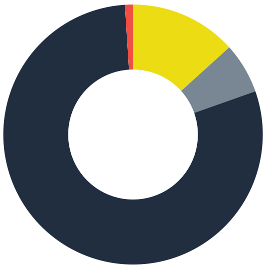
Monthly Update as at 31 October 2023

TOTAL FUNDS UNDER MANAGEMENT: $1.5b[1]

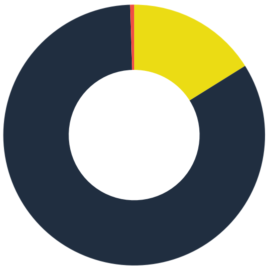
INVESTMENT MIX

- Cash/other (including short and long derivatives)
- New Zealand fixed income
- Global fixed income
- Asian equities
- Emerging markets equities
- European equities
- UK equities
- US and Canadian equities
- New Zealand equities
- Australian equities
- Listed property

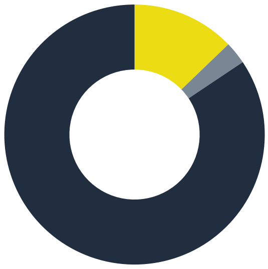
AUSTRALASIAN GROWTH



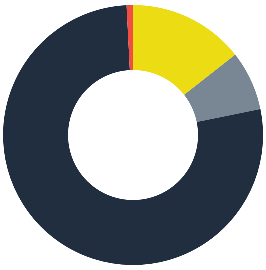
AUSTRALASIAN DIVIDEND GROWTH



AUSTRALASIAN EMERGING



AUSTRALASIAN GROWTH 2

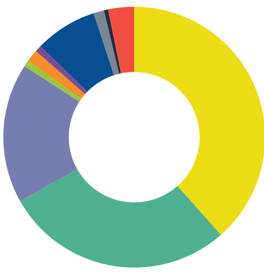


GLOBAL GROWTH

GROWTH UK & EUROPE

GLOBAL GROWTH 2

CONSERVATIVE



CHAIRMAN'S

Pie Funds

1. Total funds under management includes $201m of interfund investments ie Chairman's Fund investing into other funds.

Information is current as at 31 October 2023. Pie Funds Management Limited is the manager of the funds in the Pie Funds Management Scheme. Any advice is given by Pie Funds Management Limited and is general only. Our advice relates only to the specific financial products mentioned and does not account for personal circumstances or financial goals. Please see a financial adviser for tailored advice. You may have to pay product or other fees, like brokerage, if you act on any advice. As manager of the Pie Funds Management Scheme investment funds, we receive fees determined by your balance and we benefit financially if you invest in our products. We manage this conflict of interest via an internal compliance framework designed to help us meet our duties to you. For information about how we can help you, our duties and complaint process and how disputes can be resolved, or to see our product disclosure statement, please visit www.piefunds.co.nz. Please let us know if you would like a hard copy of this disclosure information. Past performance is not a reliable indicator of future returns. Returns can be negative as well as positive and returns over different periods may vary.

Australasian Growth Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

MICHAEL GOLTSMAN
Lead Portfolio Manager

MIKE ROSS
Co-Portfolio Manager

FUND COMMENTARY

The Australasian Growth Fund returned -7.3% in October, bringing it to a 12-month return of 7.1%.

Market volatility was particularly felt by smaller companies in October. Strong performers over the past 12 months were amongst the most sold names.

IPD Group was our largest detractor this month, declining 23%. No specific news was responsible for the move. While we are cautious that near term trading for the company could be marginally softer, reflective of the broader economy, our investment view is longer term. We continue to be attracted to the structural need to upgrade electrical infrastructure across Australia as well as IPD's growing list of partners which will support market share gains.

Mach7 Technologies declined by 11%. The company held an investor day and reaffirmed its previous guidance for 15-25% revenue growth in FY24. Demand for its enterprise imaging solutions is clearly strong, with the company securing ~70% of its FY24 sales target in 1Q. Customers are showing a growing preference for subscription sales over capital sales, which will weigh on FY24 revenues, but it will also create a higher quality recurring revenue business which is deserving of a higher multiple.

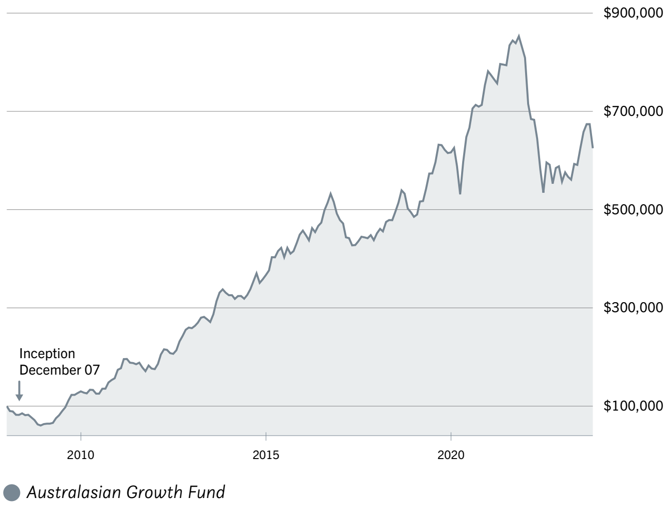
Symbio was a topical holding this month. The company received a superior bid from Aussie Broadband at the start of the month having previously received an offer from its competitor Superloop. Subsequently the board has entered a scheme of arrangement with Aussie Broadband for an effective takeover value of $3.16 per share, inclusive of special dividends.

Cash has been maintained at 13.3% and the number of holdings has increased to 27 from 26.

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.



FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed Australasian smaller companies.
Inception date	December 2007
Standard withdrawal period	15 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 3 4 **5** 6 7 Lower Risk — Higher Risk

Australasian Growth Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	10 yrs (p.a.)	Annualised since inception
Australasian Growth Fund	-7.3%	7.1%	-4.2%	4.6%	2.9%	6.5%	12.3%
MARKET INDEX[1]	-4.0%	-6.0%	1.4%	2.6%	4.5%	3.7%	0.1%

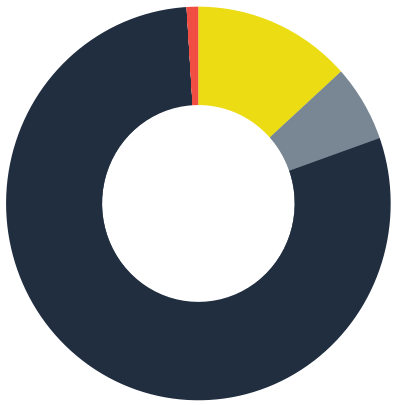
Returns after fees but before individual PIR tax applied

1. *S&P/ASX Small Ordinaries Total Return Index (NZD)*

INVESTMENT MIX

Cash/other (including short and long derivatives)	13.3%
New Zealand equities	6.3%
Australian equities	79.4%
Listed property	1.0%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*



TOP FIVE EQUITY HOLDINGS

Clearview Wealth Ltd	CVW AU
IPD Group Ltd	IPG AU
Life360 Inc	360 AU
Mach7 Technologies Ltd	M7T AU
Reject Shop Ltd/The	TRS AU

Holdings are listed in alphabetical order.

UNIT PRICE

$6.25

ANNUALISED RETURN SINCE INCEPTION

12.3% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds

Australasian Dividend Growth Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

MIKE ROSS
Lead Portfolio Manager

MICHAEL GOLTSMAN
Co-Portfolio Manager

FUND COMMENTARY

The Dividend Growth Fund returned -4.8% in October and has returned 5.6% over the last twelve months.

Global equities de-rated in October as bond-yields surged and investors grappled with higher-for-longer inflation expectations. The S&P/ASX Small Ordinaries Total Return (NZD) fell 4.0%.

The largest single detractor to performance during the month was Credit Corp, a debt collector and lending business. Its shares fell 37% in October after an earnings downgrade and impairment driven by deteriorating market conditions within its US collections business. This highlighted that Credit Corp has paid prices for debt ledgers in recent years that will not deliver expected returns in the current collections environment. Management had reported increased delinquencies in its US business at the FY23 result. This stabilised in July and August before deteriorating in September, prompting management to reassess its collections assumptions. The good news is that this environment combined with increased supply of debt, means pricing is now coming down. This will take time to translate to earnings. Credit Corp now trades close to book value, the cheapest its shares have traded since the GFC.

Other detractors in October included AUB Group, MMA Offshore and Johns Lyng Group, none of which released any negative news during the month.

On the positive side of the ledger, Novated Leasing and salary packaging business Smartgroup rallied mid-month, finishing October 4.5% higher after listed-peer McMillan Shakespeare provided a trading market demonstrating continued strength in demand. This update and continued feedback from industry contacts gives us confidence government policy is succeeding in driving demand for electric vehicles through novated leasing.

Imdex was up 6% after providing an update at its AGM indicating that the business has stabilised and early signs that the outlook for margins may be improving.

Platform HUB24 provided a very strong quarterly update with net inflows of $2.8bn coming in ahead of expectations, but its shares fell 7% for the month.

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.

FUND DETAILS

Recommended minimum investment period	5 years
Objective	Generate income and capital growth over a period exceeding 5 years.
Description	Invests predominantly in listed Australasian smaller and medium growth companies paying dividends or that will produce cash-flow for future distributions.
Inception date	September 2011
Standard withdrawal period	10 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 3 4 5 **6** 7 Lower Risk — Higher Risk

Australasian Dividend Growth Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	10 yrs (p.a.)	Annualised since inception
Australasian Dividend Growth Fund	-4.8%	5.6%	11.7%	9.4%	9.9%	10.9%	15.0%
MARKET INDEX[1]	-4.0%	-6.0%	1.4%	2.6%	4.5%	3.7%	2.3%

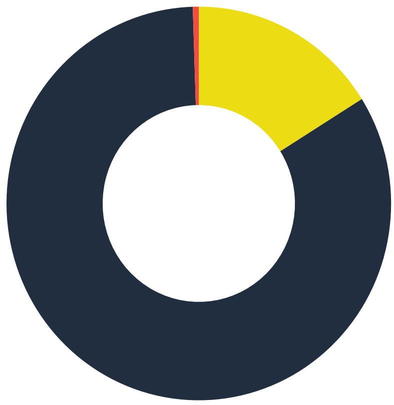
Returns after fees but before individual PIR tax applied

1. *S&P/ASX Small Ordinaries Total Return Index (NZD)*

INVESTMENT MIX

Cash/other (including short and long derivatives)	16.1%
Australian equities	83.4%
Listed property	0.5%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*



TOP FIVE EQUITY HOLDINGS

AUB Group Limited	AUB AU
Aussie Broadband Pty Ltd	ABB AU
Johns Lyng Group LTD	JLG AU
Karoon Gas Australia Ltd	KAR AU
Mermaid Marine Australia Ltd	MRM AU

Holdings are listed in alphabetical order.

UNIT PRICE

$3.84

ANNUALISED RETURN SINCE INCEPTION

15.0% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds

Australasian Emerging Companies Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

KENT WILLIAMS
Lead Portfolio Manager

MICHELLE LOPEZ
Head of Australasian Equities and Co-Portfolio Manager

FUND COMMENTARY

The Emerging Companies Fund returned -7.6% in October, bringing it to a 12-month return of 5.9%.

October saw global markets decline with the smaller end of the market particularly impacted. Pleasingly this is resulting in ever improving opportunities to deploy capital at very attractive prices.

The key contributor to fund performance during the month was our select exposure to gold companies which all outperformed the market as the gold price rallied on the back of the unrest occurring in the Gaza Strip region. Gold continues to look attractively priced, and our positions remained relatively unchanged at month end.

IPD Group was our largest detractor this month, declining 23%. No specific news was responsible for the move. While we are cautious that near term trading for the company could be marginally softer, reflective of the broader economy, our investment view is longer term. We continue to be attracted to the structural need to upgrade electrical infrastructure across Australia as well as IPD's growing list of partners which will support market share gains.

While fund positioning remained broadly unchanged, some of the notable changes included reducing Azure Minerals after the company received a takeover offer at a 40% premium. Aussie Broadband (ABB) was also reduced given the strong share price.

Looking at markets more broadly, the small and micro end of the market has sold off aggressively relative to large caps over the last 6 months. This equates to significantly more attractive valuations in the smaller end of the market and is providing a number of interesting opportunities for capital deployment. As is the case with all market cycles, capital will eventually flow out of large caps back into the smaller end of the market. We want to ensure this fund is positioned to take advantage of that – and this remains our greatest focus in the months ahead.

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.

Australasian Emerging Companies

FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed Australasian emerging companies.
Inception date	April 2013
Standard withdrawal period	15 working days

Risk indicator

Potentially Lower Returns — Potentially Higher Returns

1 2 3 **6** 4 5 6 7

Lower Risk — Higher Risk

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

Australasian Emerging Companies Fund

Monthly Update as at 31 October 2023

PERFORMANCE

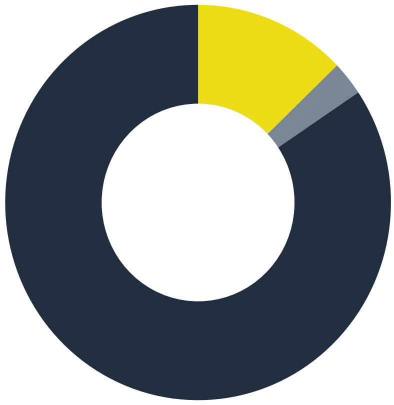
	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	10 yrs (p.a.)	Annualised since inception
Australasian Emerging Companies Fund	-7.6%	5.9%	0.8%	9.0%	8.5%	12.8%	17.2%
MARKET INDEX[1]	-3.1%	-10.9%	6.1%	9.5%	6.2%	5.7%	5.0%

Returns after fees but before individual PIR tax applied

1. *S&P/ASX Emerging Companies Index (Total Return) (NZD)*

INVESTMENT MIX

Cash/other (including short and long derivatives)	12.8%
New Zealand equities	2.8%
Australian equities	84.4%



**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*

TOP FIVE EQUITY HOLDINGS

Duratec Ltd	DUR AU
IPD Group Ltd	IPG AU
Kip McGrath Education Centres	KME AU
Mermaid Marine Australia Ltd	MRM AU
Service Stream LTD	SSM AU

Holdings are listed in alphabetical order.

UNIT PRICE

$5.31

ANNUALISED RETURN SINCE INCEPTION

17.2% p.a.

after fees and before tax

FUND STATUS

CLOSED OPEN

Pie Funds

Australasian Growth 2 Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

MICHELLE LOPEZ
Head of Australasian Equities
and Lead Portfolio Manager

KENT WILLIAMS
Co-Portfolio Manager

FUND COMMENTARY

The Growth 2 Fund returned -5.4% in October, bringing it to a 12-month return of -4.4%.

Market volatility was particularly felt by smaller companies in October, with conflict in the Middle East placing further pressure on risk assets as concerns around regional instability increased. Given the strong retracement we have seen in markets over the last 2 months, this has resulted in ever improving opportunities to deploy capital at attractive valuations.

The key contributor to fund performance during the month was our select exposure to gold companies: Gold Road Resources +18.6% and Ramelius Resources +16.9% which outperformed the market as the gold price rallied on the back of the unrest occurring in the Gaza Strip region. Both companies reported quarterly trading updates which were in-line or marginally ahead of expectations.

The largest single detractor to performance during the month was Credit Corp, a debt collector and lending business. Its shares fell 37% in October after an earnings downgrade and impairment driven by deteriorating market conditions within its US collections business. This highlighted that Credit Corp has paid prices for debt ledgers in recent years that will not deliver expected returns in the current collections environment. Management had reported increased delinquencies in its US business at the FY23 result. This stabilised in July and August before deteriorating in September, prompting management to reassess its collections assumptions. The good news is that this environment combined with increased supply of debt, means pricing is now coming down. This will take time to translate to earnings. Credit Corp now trades close to book value, the cheapest its shares have traded since the GFC.

From a positioning perspective, the Fund still has cash available to deploy (approx. 14%). However, we have been selectively adding to those positions unfairly caught up in the indiscriminatory sell off. These included healthcare companies Resmed and Telix Pharmaceuticals; as well as Corporate Travel. All three companies have very attractive medium and long term drivers, strong balance sheets (net cash) enabling them to invest for growth (Resmed and Telix), and/or return to shareholders through share buybacks (Resmed and Corporate Travel).

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.

Australasian Growth 2 Fund

FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed Australasian smaller and medium companies.
Inception date	August 2015
Standard withdrawal period	10 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 3 **6** 4 5 6 7 Lower Risk — Higher Risk

Australasian Growth 2 Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	Annualised since inception
Australasian Growth 2 Fund	-5.4%	-4.4%	-6.0%	4.6%	6.2%	9.3%
MARKET INDEX[1]	-4.7%	-7.0%	1.0%	2.4%	4.4%	5.6%

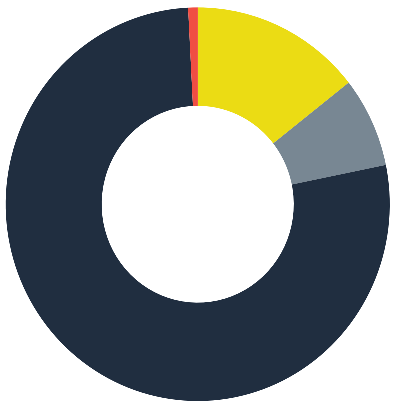
Returns after fees but before individual PIR tax applied

1. *S&P/ASX Mid Cap 50 & Small Ordinaries Daily 50/50 Blend Total Return Index (NZD) from 1 September 2023 (previously, S&P/ASX Small Ordinaries Total Return Index NZD)*

INVESTMENT MIX

Cash/other (including short and long derivatives)	14.4%
New Zealand equities	7.4%
Australian equities	77.4%
Listed property	0.8%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*



TOP FIVE EQUITY HOLDINGS

Aroa Biosurgery Ltd	ARX AU
CSR Limited	CSR AU
HUB24 Limited	HUB AU
Life360 Inc	360 AU
Seven Group Holdings Ltd	SVW AU

Holdings are listed in alphabetical order.

UNIT PRICE

$2.07

ANNUALISED RETURN SINCE INCEPTION

9.3% p.a.

after fees and before tax

FUND STATUS

CLOSED OPEN

Pie Funds

Global Growth Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

GUY THORNEWILL*
Head of Global Research

TOBY WOODS*
Senior Investment Analyst

MIKE TAYLOR
Founder and Chief Investment Officer

**Guy Thornewill and Toby Woods are responsible for research and analysis*

FUND COMMENTARY

The Global Growth Fund fell 7% during the month, taking its 12-month return to -2.7%.

October was another difficult and volatile month for global equities, and especially for smaller companies. The steep rise in interest rates has started to bite, with many companies reporting slowing sales and profits, causing them to miss earnings expectations. Another feature of the market has been inventory destocking, as companies try to run down excess inventory built up during 2022 when supply chains were stretched. In addition, war breaking out in the Middle East further reduced risk appetite.

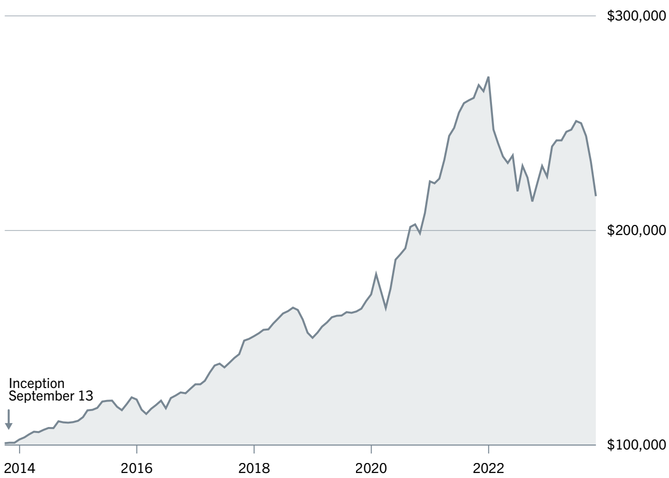
Unfortunately, several of our holdings were dragged down in the month either on no news or, perversely, on good news. Another example of this is Invisio, where numbers were ahead of expectations, but some underlying lumpiness in orders caused the stock to fall, so we added to our position at the lower levels. The worst performer in the month was OMA, the Mexican airport operator, which had been a very good performer. In a surprise move, the Mexican government unilaterally announced changes to the airport tariff scheme, which had been stable for 25 years. This caused the shares to fall more than 20%, and we exited the position. Eurogroup Laminations also performed poorly, falling 26% in the month on no news.

On the positive side, we saw an upbeat outlook from Bytes, a software reseller and Microsoft's key UK partner, where demand is being partially driven by artificial intelligence products which will remain a long-term tailwind. Munters announced a huge new order for a data centre cooling application, and Winmark rose to new highs on good results.

During the month, we performed a detailed review of the balance sheets of all the fund's holdings, and due to the higher interest rate environment we decided to exit Encore Capital and Grenergy, which had higher financial leverage. We also sold ATS Corp as we are concerned that order intake is likely to slow. However, in general we believe global smaller company shares are currently oversold.

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.



FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed international smaller companies, international managed funds and other products issued by Pie Funds.
Inception date	September 2013
Standard withdrawal period	10 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns; 1 2 3 4 **5** 6 7; Lower Risk — Higher Risk

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

Global Growth Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	10 yrs (p.a.)	Annualised since inception
Global Growth Fund	-7.0%	-2.7%	2.9%	6.5%	8.3%	8.0%	7.9%
MARKET INDEX[1]	-2.8%	0.9%	8.9%	6.8%	9.1%	9.0%	9.2%

Returns after fees but before individual PIR tax applied
1. S&P Global SmallCap (Total Return) Index (NZD)

INVESTMENT MIX

Cash/other (including short and long derivatives)	18.9%
Emerging markets equities	21.4%
European equities	24.0%
UK equities	14.4%
US and Canadian equities	21.3%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*

TOP FIVE EQUITY HOLDINGS

Discoverie Group PLC	DSCV LN
Frp Advisory Group PLC	FRP LN
Grupo Traxion SAB de CV	TRAXIONA MX
Ishares Russell 2000	IWM US
William Blair SICAV - EMK SMC I Class	WBSEMIC LX

Holdings are listed in alphabetical order.

UNIT PRICE

$2.16

ANNUALISED RETURN SINCE INCEPTION

7.9% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds

Growth UK & Europe Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

GUY THORNEWILL*
Head of Global Research

TOBY WOODS*
Senior Investment Analyst

MIKE TAYLOR
Founder and Chief Investment Officer

**Guy Thornewill and Toby Woods are responsible for research and analysis*

FUND COMMENTARY

The Growth UK and Europe Fund returned -4.4% during the month, bringing it to a 12-month return of -4%.

October has been a rough month across global equities, with Europe being no exception. There have been many companies in the market missing earnings expectations with some extremely negative moves. However, we have largely avoided these with one exception, Thermador, reacting poorly on its earnings release dragging the shares down 10%. Unfortunately, a number of our holdings were dragged down with the market in the month either on no news or, perversely, on good news. An example of the latter is Inficon, a supplier of niche measuring applications to industrial and semi-conductor clients, which upgraded its yearly guidance but fell after ASML (a large semi-conductor equipment manufacturer) indicated a softer outlook for next year. Another example is Invisio, where numbers were ahead of expectations but some underlying lumpiness in orders caused the stock to fall 12%. We added to our position at the lower levels. In general, we believe the UK & European small cap market is currently oversold and represents a good opportunity.

On the positive side, we saw an upbeat outlook from Bytes, a software reseller and Microsoft's key UK partner, where demand is being partially driven by artificial intelligence products which will remain a long-term tailwind. CTS Eventim, Europe's dominant ticketing platform, upgraded its guidance as demand for live events remains strong. Meanwhile, our Swedish holdings Sdiptech and BioGaia delivered better than expected profits while Munters announced a huge new order for a data centre cooling application (driving the stock up 12% on the day, reversing the recent share decline).

We made no major changes to the portfolio during the month, although we have adjusted some positions given the large share price moves. For instance, we added to BioGaia, Bytes and Trainline, while we reduced Grenergy and Impax

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.

Growth UK & Europe Fund

FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed UK & European smaller companies.
Inception date	November 2016
Standard withdrawal period	10 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 3 4 **5** 6 7 Lower Risk — Higher Risk

Growth UK & Europe Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	Annualised since inception
Growth UK & Europe Fund	-4.4%	-4.0%	2.8%	4.4%	6.1%
MARKET INDEX[1]	-2.9%	7.2%	5.3%	3.8%	7.0%

Returns after fees but before individual PIR tax applied

1. MSCI Europe Small Cap Net Return Index (NZD)

INVESTMENT MIX

Cash/other (including short and long derivatives)	19.0%
European equities	50.4%
UK equities	30.7%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*

TOP FIVE EQUITY HOLDINGS

Bufab AB (publ)	BUFAB SS
Bytes Technology Group PLC	BYIT LN
Discoverie Group PLC	DSCV LN
Do & Co AG	DOC AV
Nexus AG	NXU GR

Holdings are listed in alphabetical order.

UNIT PRICE

$1.50

ANNUALISED RETURN SINCE INCEPTION

6.1% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds

Global Growth 2 Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

GUY THORNEWILL*
Head of Global Research

TOBY WOODS*
Senior Investment Analyst

MIKE TAYLOR
Founder and Chief Investment Officer

**Guy Thornewill and Toby Woods are responsible for research and analysis*

FUND COMMENTARY

The Global Growth 2 Fund fell 2.9% during the month, taking its 12-month return to 2.9%.

October was another difficult and volatile month for global equities. The steep rise in interest rates has started to bite, with many companies reporting slowing sales and profits, causing them to miss earnings expectations. Another feature of the market has been inventory destocking, as companies try to run down excess inventory built up during 2022 when supply chains were stretched. In addition, war breaking out in the Middle East further reduced risk appetite.

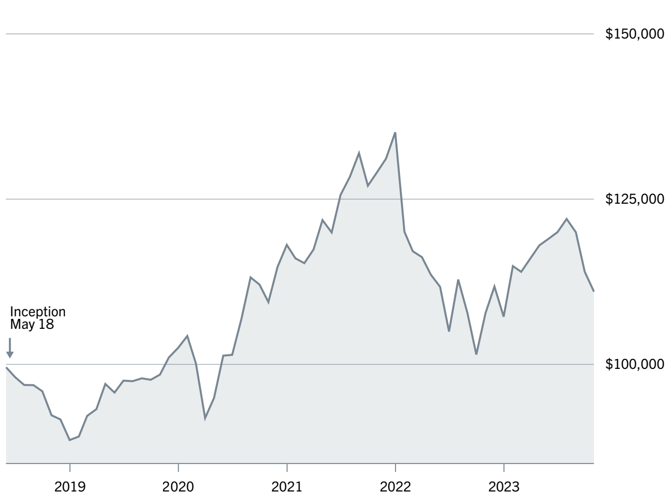
Consumer spending has held up well so far, especially in the US, but there are signs that this is weakening. Tractor Supply reduced its growth outlook, and even luxury goods companies such as LVMH, which is also held in the fund, are starting to see slower demand. Both stocks declined modestly. The worst performer was Samsung SDI, which makes batteries for electric vehicles. The stock fell 17% despite results that only narrowly missed expectations, as demand for electric vehicles is slowing in the short-term.

Offsetting the decliners, share prices of the fund's holdings in Microsoft, Spotify and United Health all registered healthy gains after reporting results that beat expectations. Microsoft's results were particularly impressive, and it is the fund's largest holding at 4.9%. We expect that Microsoft, alongside holdings in Nvidia and Adobe, will continue to be early beneficiaries of more spending on artificial intelligence. Novo Nordisk also performed well after raising guidance once again due to strong sales of its diabetes and obesity drugs.

During the month, we performed a detailed review of the balance sheets of all the fund's holdings, and due to the higher interest rate environment we decided to exit Hillman Solutions, which had higher financial leverage. We also sold the position in CSL after some disappointing results. We bought a position in Newmont Mining, one of the world's largest gold producers, as we expect demand for gold to remain robust, supporting prices.

CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.



Global Growth 2 Fund

FUND DETAILS

Recommended minimum investment period	5 years
Objective	Capital growth over a period exceeding five years.
Description	Invests predominantly in listed international large companies.
Inception date	May 2018
Standard withdrawal period	Up to 5 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 3 4 **5** 6 7 Lower Risk — Higher Risk

For more information on our funds, please visit
www.piefunds.co.nz/Investor-Documents

Global Growth 2 Fund

Monthly Update as at 31 October 2023

PERFORMANCE

	1 month	1 yr	3 yrs (p.a.)	5yrs (p.a.)	Annualised since inception
Global Growth 2 Fund	-2.9%	2.9%	0.6%	3.8%	2.0%
MARKET INDEX[1]	0.0%	8.5%	9.5%	8.0%	7.7%

Returns after fees but before individual PIR tax applied

1. *MSCI ACWI Index (NZD)*

INVESTMENT MIX

Cash/other (including short and long derivatives)	12.5%
Global Fixed Income	2.7%
Asian equities	3.8%
Emerging markets equities	10.7%
European equities	20.4%
UK equities	0.8%
US and Canadian equities	45.4%
Listed property	3.6%

**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*

TOP FIVE EQUITY HOLDINGS

Amazon.Com Inc	AMZN US
Apple Inc	AAPL US
Microsoft Corporation	MSFT US
UnitedHealth Group Inc	UNH US
William Blair SICAV - EMK SMC I Class	WBSEMIC LX

Holdings are listed in alphabetical order.

UNIT PRICE

$1.11

ANNUALISED RETURN SINCE INCEPTION

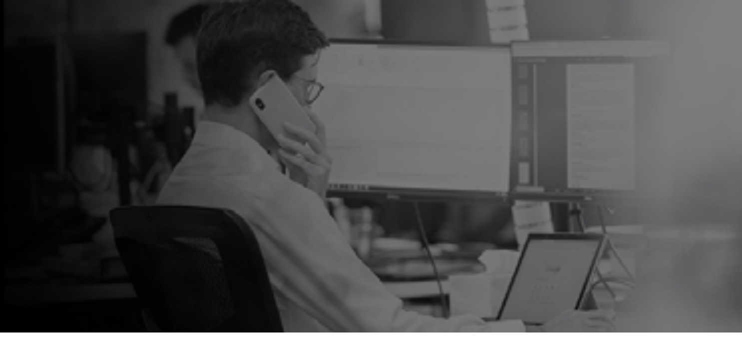
2.0% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds



Conservative Fund

Monthly Update as at 31 October 2023

PORTFOLIO MANAGER(S)

MIKE TAYLOR
Founder and Chief Investment Officer

TRAVIS MURDOCH
Head of Fixed Income and Portfolio Manager

FUND COMMENTARY

The Conservative Fund returned -0.5% in October, bringing it to a 12-month return of 4.9%.

October was another tough month for markets, with rising US interest rates once again the culprit. The attack in Israel caused further uncertainty for markets, as investors worried about a wider escalation in the region. Despite a slight recovery into the month end, equity markets closed lower for the third month in a row.

Once again, the Fund's materially below benchmark equity positioning was not enough to prevent the Fund ending the month in negative territory. The biggest negative contributor to the equity book was ExxonMobil, which underperformed after announcing the acquisition of Pioneer Natural Resources. While the deal makes financial sense, we view the transaction as doubling-down on fossil fuels, and as a result we have exited the position. On the positive side, Microsoft was the biggest positive contributor after reporting an impressive set of results.

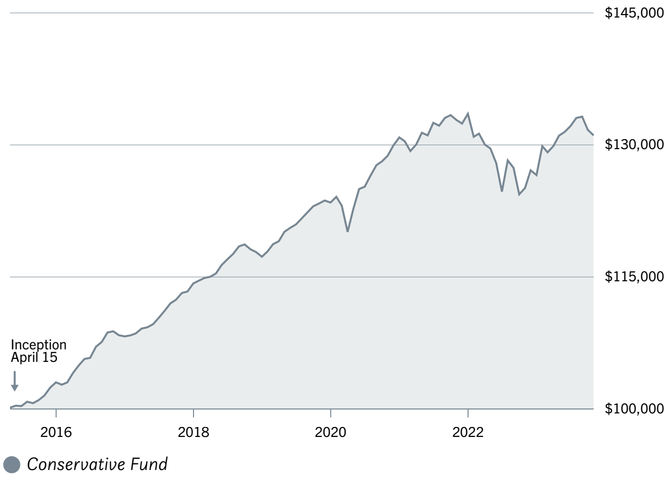
In bonds, losses were concentrated in long-term US government bonds, where interest rates increases were most notable. Whilst the Fund does own some longer dated US bonds, its diversified positioning helped to mitigate losses. This included short-term US bonds, which were unchanged during the month, NZ bonds, which notably outperformed, and European bonds which actually closed higher (rates moved lower).

Despite a tough month for bonds, high yields are providing a cushion against rising rates, and there were signs during the month that higher yields are drawing more buying interest from investors. Any relief from higher rates should be of benefit to both our equity and bond holdings.

For more information on our funds, please visit ***www.piefunds.co.nz/Investor-Documents***

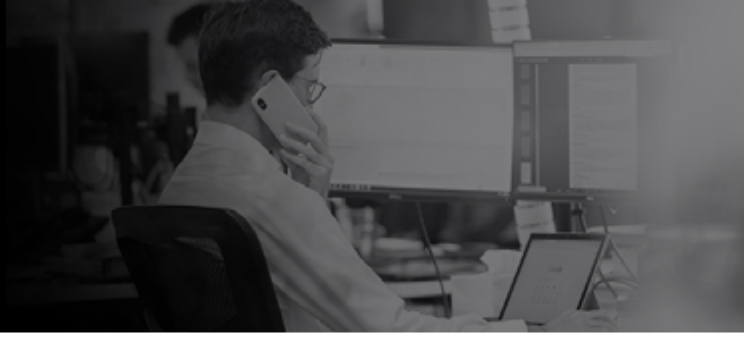
CUMULATIVE FUND PERFORMANCE

If you had invested $100,000 at inception, the graph below shows what it would be worth today.



FUND DETAILS

Recommended minimum investment period	3 years
Objective	Preserve capital (with some growth), which outperforms the market index over a 3-5 year period.
Description	Invests predominantly in fixed interest securities and some cash, with an allocation to equities (directly or through other products issued by Pie Funds).
Inception date	April 2015
Standard withdrawal period	Up to 5 working days
Risk indicator	Potentially Lower Returns — Potentially Higher Returns 1 2 **3** 4 5 6 7 Lower Risk — Higher Risk



Conservative Fund

Monthly Update as at 31 October 2023

PERFORMANCE

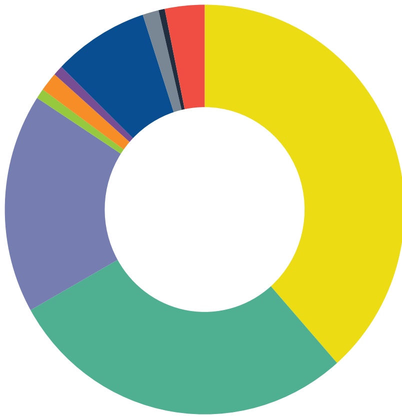
	1 month	1 yr	3 yrs (p.a.)	5 yrs (p.a.)	7 yrs (p.a.)	Annualised since inception
Conservative Fund	-0.5%	4.9%	0.7%	2.2%	2.7%	3.3%
MARKET INDEX[1]	-0.2%	3.7%	1.5%	2.9%	3.6%	3.7%

Returns after fees but before individual PIR tax applied

1. *The market index is a composite index (25% NZBond Bank Bill Index (NZD), 30% S&P NZX Investment Grade Corporate Bond Total Return Index (NZD), 20% Bloomberg Barclays Global Aggregate Total Return Index Hedged (NZD), 5% S&P/ASX All Ordinaries Accumulation Index (NZD), 15% MSCI ACWI IMI Net Total Return Index (NZD), 5% S&P Global REIT Total Return Index (NZD)).*

INVESTMENT MIX

Cash/other (including short and long derivatives)	38.4%
New Zealand fixed income	28.3%
Global fixed income	17.3%
Asian Equities	0.8%
European equities	1.5%
UK equities	0.8%
US and Canadian equities	7.7%
New Zealand equities	1.3%
Australian equities	0.5%
Listed property	3.2%



**Asset allocation is rounded to the nearest tenth of a percent; therefore, the aggregate may not equal 100%.*

TOP FIVE HOLDINGS (EXCLUDING CASH)

ASB Bank Bond 5.928% 16/11/2026	ABB110
Contact Energy Bond 5.62% 06/04/2029	CEN080
New Zealand Local Government Funding Agency Bond 4.5% 15/05/2030	LGF170
US Treasury Bond 4.125% 15/11/2032	T 4.125 11/15/32
Vector Bond 1.575% 06/10/2026	VCTNZ 1.575 10/06/26

Holdings are listed in alphabetical order and exclude cash.

UNIT PRICE

$1.13

ANNUALISED RETURN SINCE INCEPTION

3.3% p.a.

after fees and before tax

FUND STATUS

CLOSED **OPEN**

Pie Funds

Pie Funds

Level One
No. 1 Byron Avenue

PO BOX 33 1079
Takapuna 0622
Auckland, New Zealand

Information is current as at 31 October 2023. Pie Funds Management Limited is the manager of the funds in the Pie Funds Management Scheme. Any advice is given by Pie Funds Management Limited and is general only. Our advice relates only to the specific financial products mentioned and does not account for personal circumstances or financial goals. Please see a financial adviser for tailored advice. You may have to pay product or other fees, like brokerage, if you act on any advice. As manager of the Pie Funds Management Scheme investment funds, we receive fees determined by your balance and we benefit financially if you invest in our products. We manage this conflict of interest via an internal compliance framework designed to help us meet our duties to you. For information about how we can help you, our duties and complaint process and how disputes can be resolved, or to see our product disclosure statement, please visit www.piefunds.co.nz. Please let us know if you would like a hard copy of this disclosure information. Past performance is not a reliable indicator of future returns. Returns can be negative as well as positive and returns over different periods may vary.

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