



BAFI1042

Equity Investment and Portfolio Management

Semester 2, 2024

Assessment Task 3: Equity Portfolio Management Report

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Results: Distinction

Executive Summary

The objective of this report is to assess and compare the effectiveness of passive and active portfolio management approaches in an environment mixed with economic uncertainty and fluctuating market conditions. The passive portfolio, structured to mimic the benchmark index, achieved its goal by tracking the benchmark perfectly, demonstrating no tracking error and matching the benchmark index returns. Conversely, the active portfolio which had an overweight allocation on technology and consumer staples sector experienced greater volatility, underperforming the benchmark during the evaluation period.

Key findings:

- Passive Portfolio: Successfully tracked the benchmark index, offering stability and lower risk exposure.
- Active portfolio: Failed to outperform the benchmark index, although structured for higher growth with overweight allocation in technology and consumer staple sectors. The active portfolio underperformed due to adverse sector allocation and specific stock significant decline, notably in WiseTech Global.

In conclusion, the passive portfolio demonstrated reliable performance and lower volatility, matching benchmark returns. Given the active portfolio's underperformance and heightened volatility, a passive investment strategy is recommended

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Introduction

This report presents a comprehensive analysis of two distinct portfolio management strategies, passive and active. The passive portfolio is designed to replicate and track the benchmark as closely as possible, achieving returns that match the benchmark performance. In contrast, the active portfolio seeks to outperform the benchmark through industry sector and individual securities selection, along with active weight allocations, focusing on high growth with the technology sector while balancing risk through the consumer staples sector. Through a mix of financial ratio, sector, company, and macroeconomic condition analyses, this report evaluates each portfolio's structure, stock and industry selection, and overall performance relative to benchmark.

Passive Portfolio Management

Figure 1: Passive Portfolio Shares Calculation

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Passive		Date	30-Sep-24	Start Date: Monday, 30 September, 2024		
		Initial Capital	\$1,000,000	End Date: Friday, 25 October, 2024		
Security Name		Symbol	Weight	Initial Price	No of Shares	Total Cost
National Australia Bank		NAB.AX	10.00%	\$37.35	2,677	\$99,985.95
1	Treasury Wine Estates Limited	TWE.AX	10.00%	\$12.00	8,333	\$99,996.00
2	Coles Group	COL.AX	10.00%	\$18.06	5,537	\$99,998.22
3	Endeavour Group	EDV.AX	10.00%	\$5.02	19,920	\$99,998.40
4	TechnologyOne Limited	TNE.AX	10.00%	\$23.86	4,191	\$99,997.26
5	Xero Limited	XRO.AX	10.00%	\$149.44	669	\$99,975.36
6	WiseTech Global Limited	WTC.AX	10.00%	\$137.19	728	\$99,874.32
7	Codan Limited	CDA.AX	10.00%	\$16.12	6,203	\$99,992.36
8	Woodside Energy Group	WDS.AX	10.00%	\$25.20	3,968	\$99,993.60
9	Santos Limited	STO.AX	10.00%	\$7.02	14,245	\$99,999.90
10	Origin Energy	ORG.AX	10.00%	\$10.01	9,990	\$99,999.90
			100.00%	\$999,825.32		

The passive portfolio positions have equal weightage as its objective is to track and mirror the benchmark index performance.

Active Portfolio Management

Macroeconomic Analysis (Australia Economy)

The Australian Economy is currently navigating a challenging economic landscape shaped by persistent inflationary pressures and global economic shifts.

The Australian Bureau of Statistics (ABS) reported that Australia Gross Domestic Product (GDP) rose 1.5% from 2023 to 2024 (ABS, 2024). However, GDP growth has decelerated from around 3% the previous year to 1.5% this year (Appendix 1). The slow in growth reflects the effects of weaker economic activity due to high borrowing costs and weaker export performance.

To combat inflationary pressures, the Reserve Bank of Australia (RBA) adopted a hawkish stance and raised their cash rate to 4.35% (RBA, 2023). This approach has successfully reduced inflation, with Australia's inflation rate declining from its peak in 2022 to 3.8% in 2024 (Appendix 2). However, the inflation rate of 3.8% is still above the RBA's inflation target rate range of 2% - 3% (RBA, 2024). In its latest September monetary policy statement, the RBA has maintained the cash rate target at 4.35%, attributing persistent inflation to ongoing strength in the labour market (RBA, 2024). The ABS reported an increase in labour market participation rate to 67.2% (ABS, 2024), the graph in Appendix 3 illustrates that the number of employed individuals has reached its highest level in a decade. In addition, wage price index (WPI) increased by 4.1% over the year (ABS, 2024). A tight job market means fewer workers available for the number of open jobs, which leads to employers increasing wages to employ or retain staff. As wage rises, disposable income increases, driving higher consumer spending, resulting in higher inflation. Concerned that the tight jobs market might reignite inflation, the RBA remains cautious about cutting rates.

On the trade front, Australia's exports have been declining after its peak in June 2022 (appendix 4). Australia's exports have been dominated by commodities such as iron ore, coal, oil and gas, and liquefied natural gas (IBISWorld, 2024). However, commodity demand decline from Australia's biggest export partner, China, due to economic challenges in the country, impacting Australia's export revenue. China commodity imports slumped in 2024, in particular, crude oil imports drop to lowest levels since September 2022 (Russel. C, 2024). In response, Australia has begun to diversity and expand its trade relations, particularly in South East Asia. Notably, with India, the Australia-India Business Exchange (AIBX) program will

help to increase export diversification, in particular the agriculture and service sector (AusTrade, 2024).

Looking ahead, Australia's economy trajectory will highly depend on managing inflation without stalling economic growth. While trade diversification offers a pathway to reduce reliance on China, this transition will take time. In addition, any moderation in labour market tightness would help to ease wage-driven inflation, providing room for RBA to adjust rates in the near term. However, till this dynamic stabilise, Australia's GDP may continue to face downward pressure.

Industry Sector Analysis

Technology Sector

The technology sector continues to grow and expand, mainly driven by advancements in artificial intelligence (AI) and growth in cloud computing, even as high-interest rate environment puts downward pressures on valuations (Deloitte, 2024). Furthermore, AI and cloud computing adoption has continued to accelerate. Big technology companies such as Microsoft, Alphabet, Amazon and Meta are aggressively investing in AI to expand their AI and cloud capabilities. Big technology companies have boosted their capital spending by 50% in AI to more than \$100 billion this year, as they race to build AI infrastructure (Morris. S, Murphy. H, Hodgson. C, 2024). However, US-China rising trade tensions may put pressure on the technology sector's growth and expansion. The US is working to restrict mainland China from buying advanced semiconductor technology (S&P Global, 2024). This could disrupt semiconductor supply production, increasing production costs and potentially slowing innovation. Overall, the technology sector long term growth and expansion remains promising, particularly in AI, although ongoing geopolitical and regulatory developments may slow growth.

Consumer Staples Sector

The consumer staples sector has shown resilience in high inflationary and economic uncertainty environment as investors shift towards defensive investments such as essential goods provider. Major companies such as Woolworths and Coles in this sector have been able to pass on rising input cost to consumers, benefiting from inelastic demand. It was reported that Coles posted a surge in revenue from its groceries business and expanded supermarket profit margins to the highest level (Barrett. J, 2024). The supermarket giant leveraged their

extensive supply chain and economies of scale to maintain profitability. In addition, as cost of living increases due to inflation, consumers are choosing to dine at home more (Barrett. J, 2024). The shift in consumer behaviour has further bolstered revenue for supermarket giants like Coles. In summary, the consumer staples sector continues to show resilience amid inflationary pressures and higher cost of goods, making it a defensive investments choice during economic uncertainty.

Energy Sector

The energy sector is at a transformative stage, balancing traditional fossil fuel demands with growing demands on renewable energy. Despite the strong push for clean energy, demand for oil and gas remains high due to geopolitical uncertainties, particularly the war between Russia and Ukraine, along with the Middle East conflict. These conflicts have led volatile energy prices, with oil and gas prices fluctuating as supply disruptions and uncertainty in the global energy market persist (IEA, 2024). Meanwhile, investments in renewable and clean energy are growing rapidly, with major oil companies like Woodside Energy committing US\$5 billion investments towards new energy products and lower carbon services by 2030 (Woodside, 2024). In addition, the International Energy Agency (IEA) reported that global investment in clean energy technologies and infrastructure on track to hit \$2 trillion in 2024 (IEA, 2024). The renewable energy segment is expected to experience significant growth, with global investments reaching record highs. Overall, the energy sector is at a transitioning period, balancing fossil fuel demand with long-term commitments to renewable energy. With geopolitical factors sustaining high demand for oil and gas in the near term, the sector's focus is increasingly shifting towards renewable and sustainable energy for the future. This puts the energy sector's long-term outlook promising, with record investments in renewables and technological advancements supporting sustainable growth.

Justification of Companies Selected in Active Portfolio

Selected Company Outlook

WiseTech Global Limited – WiseTech Global Limited is a leading developer and provider of logistic software solutions for the global supply chain (WiseTech Global, 2024). The company's flagship product, CargoWise, helps the logistic industry optimise operational efficiencies across complex supply chains. The company boasts a robust customer base of the top 25 global freight forwarders and 46 of the 50 global 3PL providers as their customers, and 17,000 logistic organisations uses CargoWise (CargoWise, 2024). In addition, WiseTech's aggressive acquisition strategy has helped it strengthen technological advancements and geographic expansion. The company's latest acquisition of Singeste, a leading developer of IT solutions for customs and logistic sector in Portugal (WiseTech, 2024). This acquisition will strengthen WiseTech position in Europe customs market and expand CargoWise ecosystem through the integration of Singeste. These acquisitions will also allow the company to increase its service offering and recurring revenue. Given WiseTech's robust customer base along with its acquisition strategy, the company is positioned for long-term sustainable growth.

Xero Limited – Xero Limited, a leader in cloud accounting across New Zealand, Australia, and United Kingdom, primarily serving small businesses (Xero, 2024). The company's revenue growth is mainly driven by offering cloud accounting services to small businesses through a subscription-based model. The company growth is supported by increasing adoption of their cloud-based financial solutions. Latest financial report highlights, monthly recurring revenue increased by 26% to \$1.96 billion and 4.2 million subscribers up 419,000 annually (Xero, 2024). In addition, it is reported that Mazars, a large advisory and auditing firm is providing Xero solutions to its member firms in 100+ countries (Consultancy.com.au, 2024). Collaboration with large firms will further increase adoption and boost their earnings growth. These strategic collaborations strengthen Xero's market position in key regions, positioning the company for sustained revenue growth. With a steady increase in subscriptions and partnerships with global firms, Xero is expected to maintain its growth trajectory.

TechnologyOne Limited – TechnologyOne is Australia’s largest Software as a Service (SaaS) Enterprise Resource Planning (ERP) solutions provider for many industry sectors, particularly public sector. The company’s strategic emphasis within the public sector, has secured it a dominant market position. In 2023, TechnologyOne continued to lead in the local government sector, with 25 major deals totalling more than \$113 million in contract value, in addition, more than 300 local councils use their software products (TechnologyOne, 2023). TechnologyOne transitioned from traditional software to SaaS+ model in 2022, which help streamline software delivery and reduce implantation complexities for clients has boosted the company’s internal and earnings growth. TechnologyOne's 2023 earnings report highlights a 23% increase in annual recurring revenue (ARR) and a net recurring revenue retention rate of 119% (TechnologyOne, 2023). Looking ahead, TechnologyOne's transition to a SaaS+ model positions it strongly for continued growth, especially within the public sector. With a dominant market share and expanding client base, particularly among local governments, the company is positioned to capitalise on steady recurring revenue and increased growth.

Coles Group – Coles group is one of Australia’s largest retail companies, operating within the consumer essential goods sector. The company has consistently maintained its position as a dominant player through its large network of stores and customer loyalty programs. However, in recent years the company faced challenges from inflationary pressures and rising costs, but its investments in online grocery service helped it sustained growth. Coles reported ecommerce sales grew by 30.1% and customer loyalty program ‘FlyBuy’ active members increased by 5.3% in financial year 2024 (Coles, 2024). Additionally, Coles is continuously investing in facilities and technology to improve its online grocery experience for customers. On August 6, 2024, Coles opened its second Automated Distribution Centre using world leading technology as part of its \$1billion investment in technology led innovation (Coles, 2024). These efforts will not only improve operational efficiency but also increase customers satisfaction. Overall, these initiatives are expected to support steady growth and maintain Coles dominant position in the consumer essential goods sector.

Endeavour Group – Endeavour Group, specializes in liquor retail and hospitality, is known for their well-established brands such as BWS and Dan Murphy’s. In 2023, the company launch a 3-year technology program targeting \$200 million savings (Weber. K, 2023). This initiative aims to streamline operations in its supply chain and mitigate inflationary pressures to achieve significant cost savings and increase operational efficiency. Recently, the group launched a new loyalty platform for their guests to its 350 hotels across Australia (Endeavour

Group, 2024). This loyalty program aims to personalise guest experience and increased transactions through member exclusive deals. Endeavour Group's focus on technology-driven savings and new personalized customer experiences positions it for long-term sustainable growth.

Treasury Wine Estates Limited – Treasury Wine Estate (TWE), one of the world's largest wine companies, has a strong portfolio of premium wine brand, including the renowned Penfolds wine. The company's strategic acquisitions continue to accelerate its luxury growth strategy. December 12, 2023, the company completed its transformative acquisition of a luxury wine brand, DAOU, strengthening their strong portfolio of premium wine brand. This acquisition will further strengthen the company position as one of the world's largest wine companies (TWE, 2024). In addition, the removal of Chinese tariffs on Australian wine led to an increase of 34% in wine exports, the highest volume since August 2021 (Wine Australia, 2024). This will ultimately benefit Treasury Wine Estate, boosting its revenue growth in the future. Looking ahead, the company is well-positioned to benefit from its luxury-focused growth strategy and expanding premium wine portfolio. Their strategic acquisitions and the removal of Chinese tariffs opens opportunities for substantial growth in the future.

Financial Ratios Analysis

Figure 2: WiseTech Global Financial Ratios

Wisetech global					
	2024	2023	2022	2021	2020
Gross Margin	84.0%	84.6%	85.4%	83.1%	80.6%
Operating Margin	36.5%	36.8%	40.3%	29.5%	18.7%
EPS	0.79	0.65	0.60	0.33	0.50

Figure 2 shows that WiseTech Global has demonstrated robust financial performance over the past 5 years with gross margin above 80% from 2020 to 2024. This reflects superior effective costs management and operational efficiency. Operating margin grew from 18.7% in 2020 to 36.5% in 2024. Notably, operating margin increased significantly from 29.5% in 2021 to 40.3% in 2022. This was mainly due to operating income increasing by 70% and decreasing operating expenses by 8% in 2023 (WiseTech, 2023). Lastly, earnings per share (EPS) grew consistently from 0.50 in 2022 to 0.79 in 2024. Except in 2021, EPS dropped significantly to 0.33 due to a large decrease in net income from \$160.8 million in 2020 to \$108 million in

2021 (WiseTech, 2021). In conclusion, the high gross and operating margin, along with consistent EPS growth shows WiseTech Global strong and stable financial performance.

Figure 3: Xero Limited Financial Ratios

Xero Limited					
	2024	2023	2022	2021	2020
Gross Margin	88.2%	87.3%	87.3%	86.0%	85.2%
Operating Margin	14.0%	(4.3%)	3.8%	7.3%	4.6%
EPS	1.15	(0.76)	(0.06)	0.14	0.02

Figure 3 shows that Xero has demonstrated mixed financial performance over the past 5-years. Gross margin has increased steadily over the past 5-years from 85.2% in 2020 to 88.2% in 2024, reflecting cost efficiency in delivering its services. In contrast, both operating margin and EPS performance reflected fluctuating performance. Overall, operating margin grew from 4.6% in 2020 to 14% in 2024, however, notably operating margin declined from 7.3% in 2021 to 3.8% in 2022, and then sharply down to -4.3% in 2023. Similarly, EPS has shown an overall increase of 0.02 in 2020 to 1.15 in 2024 but had a sharp decline in 2023 to -0.76. The sharp decrease in both operating margin and EPS in 2023 was largely due a significant increase of unusual expense from \$24.7 million in 2022 to \$157.4 million in 2023 for non-cash impairment and restructuring cost (Xero, 2023). In conclusion while Xero demonstrate mixed financial performance, its recent financials reflect a strong shift towards profitability. This positions the company for a long-term growth if it maintains its operational efficiency.

Figure 4: TechnologyOne Financial Ratios

TechnologyOne					
	2023	2022	2021	2020	2019
Gross Margin	87.0%	87.2%	86.7%	87.1%	86.3%
Operating Margin	27.9%	30.7%	31.7%	27.9%	23.8%
EPS	0.32	0.28	0.23	0.20	0.18

Figure 4 shows that TechnologyOne has demonstrated robust financial performance over the 5-years. Gross margin over the 5-years stayed consistently above 86%, reflecting superior cost efficiency in delivering its products and services. Operating margin over the 5 years remained relatively stable above 23% but declined from the peak of 31.7% in 2021 to 27.9% in 2023. This is due to the increase in total operating expenses of \$255.2 million in 2022 to \$309.4 million in 2023, mainly driven by acquisitions (TechnologyOne, 2023). EPS showed

strong and consistent growth over the 5-years, increasing from 0.18 in 2019 to 0.32 in 2023, reflecting growth in profitability and positive uptrend in earnings. Overall, while operating margin decreased due to acquisitions, the company has demonstrated robust financial performance reflecting sustainable long-term growth and profitability.

Figure 5: Coles Group Financial Ratios

Coles Group					
	2024	2023	2022	2021	2020
Gross Margin	26.1%	26.0%	25.9%	26.1%	25.8%
Operating Margin	4.7%	4.6%	4.8%	4.8%	4.7%
Inv Turnover	12.9	12.6	12.5	13.5	13.6

Figure 5 shows that Coles Group has demonstrated consistent and stable financial performance over the 5-years. Gross margins remained stable, marginally increasing from 25.8% in 2020 to 26.1% 2024, suggesting steady cost management in its operations. Similarly, operating margin has been mostly consistent, around 4.6% to 4.8% over the 5-years, reflecting stable profitability structure. In contrast, inventory turnover exhibited slight inconsistency. Inventory turnover decline from its peak of 13.6 in 2020 to 12.5 in 2022, before gradually increasing to 12.9 in 2024. The decline in 2022 was mainly due to suppliers facing supply chain issues and higher input cost (Coles, 2022). With inventory turnover recovering and potentially increasing in the future, while maintaining profitability, positions the company for a stable and sustainable long-term operational performance.

Figure 6: Endeavour Group Financial Ratios

Endeavour Group					
	2024	2023	2022	2021	2020
Gross Margin	34.6%	33.8%	31.3%	30.0%	26.8%
Operating Margin	8.6%	8.6%	8.0%	7.8%	1.0%
Inv Turnover	5.4	5.6	6.3	6.5	-

Figure 6 shows that Endeavour group demonstrated stable with steady growth. Gross margin increased from 26.8% in 2020 to 34.6% in 2024, suggesting improved and efficient cost management. Similarly, operating margin grew from 1% in 2020 to 8.6% in 2024. Both gross and operating margin grew due to the recovery from covid-19 pandemic in 2020. After some restriction ease in 2021, the company saw a surge in revenue mainly in its retail and online sales, of 163% and 35% respectively (Endeavour Group, 2021). However, inventory turnover has been declining gradually from 6.5 in 2021 to 5.4 in 2024, this was mainly due to lower

inventory levels and supply chain disruption, the company had to spend \$261 million of working capital to rectify low inventory and out of stock products (Endeavour group, 2024). With commitments to stabilise inventory and supply chain disruption, along with rising gross and operational margin, Endeavour Group is positioned for stable and long-term growth.

Figure 7: Treasury Wine Estate Financial Ratios

Treasury Wine Estate					
	2024	2023	2022	2021	2020
Gross Margin	44.0%	43.2%	41.2%	38.2%	40.7%
Operating Margin	9.5%	16.5%	17.5%	16.1%	16.2%
Inv Turnover	1.6	1.5	1.7	1.8	1.6

Figure 7 shows Treasury Wine Estate stable financial performance. Gross margin grew from 40.7% in 2020 to 44% in 2024, indicating improved operational cost and increased efficiency in product and distribution. In contrast, operating margin declined to 9.5% in 2024 after peaking at 17.5% in 2022. This was mainly due to the strategic acquisition of DAOU to expand the company's premium wine portfolio, which added integration and transaction cost to its overall expenses (TWE, 2024). Inventory turnover over the 5-years, hovered around 1.5 to 1.8, peaking in 2021 at 1.8. The low inventory turnover likely is due to business focus on premium and luxury wine products which require longer storage and aging period. Overall, the company has shown stable financial performance, with increasing gross margin and the strategic acquisition to expand its premium wine portfolio, positions it for a stable and long-term growth.

Stock Selection and Omissions

Selected Stocks

WiseTech Global Limited

- Robust industry position, global leader in logistic software
- Strong revenue growth, high recurring revenue model through Saas
- Position to benefit from long term trends in global trade and e-commerce
- Strong customer base with the biggest logistics customers such as DHL
- Aggressive acquisition strategy in expansion and innovation

Xero Limited

- Recurring revenue model from cloud-based accounting subscription model.
- High customer retention rate
- Dominant market position in operational regions
- Strategic collaborations with large accounting and advisory firms
- Highly innovative cloud-based accounting platform

TechnologyOne Limited

- Robust financials with history of consistent earnings growth
- Strong customer base, particularly in public sector
- High Return on Equity, indicating efficiency in generating income through shareholder equity
- Continuous innovation to enhance product offerings and services
- Strong balance sheet with low debt to equity ratio

Coles Group

- Dominate market position in consumer essential goods sector
- Essential goods provider with strong and stable demand, regardless of economic cycle
- Strategic investments in online sales channel and e-commerce
- Strong investments in innovation and technology, to improve operational efficiency
- Robust customer base with customer loyalty programs

Endeavour Group

- Largest retailer and distributor of liquor in Australia, proving market dominance
- Have pricing power due to market dominance
- Strong distribution network
- Stable operating margins, shows efficiency in managing costs
- Expansion into hospitality, diversifying revenue streams

Treasury Wine Estates Limited

- Strong Premium Wine Brand portfolio
- Strong growth potential in reopen Chinese market
- Brand loyalty from customers, particularly in premium wine category

- Strategic acquisition of premium wine brands, further strengthening company's position in the wine industry
- Extensive distribution network

Omitted Stocks

Codan Limited

- Highly dependent on mining and defence sectors.
- Mining revenue easily affected by volatile commodity prices
- Defence revenue highly dependent on government contracts
- Limited recurring revenue
- Inconsistent earnings

Woodside Energy Group

- Significant reliance on global oil and gas prices
- Inconsistent earnings
- Subjected to geopolitical risks
- High debt levels compared to technology and consumer staples sector
- Volatile cash position due to fluctuating energy demand and prices

Santos Limited

- Inconsistent earnings
- Heavy reliance on natural gas and oil, which are cyclical commodities
- Subjected to geopolitical risk
- Inconsistent free cash flow which may affect dividend payouts
- Revenue heavily influenced by global energy price fluctuations

Origin Energy

- Extremely high operating expenses
- Significant exposure to energy prices, which can be volatile
- Inconsistent earnings, with historically poor operating income performance
- Competes in highly regulated industry with low margins
- Long-term returns are not stable relative to technology and consumer staple industry

In summary, only the technology and consumer staples sector were chosen for the active portfolio due to their growth potential, stability and resilience, in contrast to the highly volatile energy sector.

Weightage Allocation

Technology sector: 60%

- WiseTech Global: 20%
- Xero Limited: 20%
- TechnologyOne: 20%

Consumer staples sector: 40%

- Coles Group: 20%
- Endeavour Group: 10%
- Treasury Wine Estate: 10%

The active portfolio targeted allocation is to maximise growth while managing risk to outperform the benchmark index. WiseTech Global, Xero Limited, and TechnologyOne are each allocated 20% in the active portfolio, double the weightage allocation in the benchmark index. The overweight positions due to expectations that technology stocks have potential substantial returns, driven by continuous adoption of digital transformation and technology advancements in cloud computing, logistic software, and enterprise solutions. By prioritising the technology sector, the active portfolio is positioned to capture significant returns, leveraging innovation advancements as the key driver for performance.

Similarly, the allocation in consumer staple is overweighted relative to the benchmark index, in particularly Coles Group. Coles Group hold a weightage of 20% in the active portfolio, double the weightage in the benchmark index, this is due to business aspect as a provider of essential goods and its dominant position in Australia making it resilience during economic downturns. Unlike other consumer staples, Coles group provides growth potential and defensive value, thus, overweighting Coles Group helps to counterbalance the volatility in the technology sector. Endeavour Group and Treasury Wine Estate both have 10% weightage allocation matching the benchmark index weightage. Both companies are underweighted relative to technology companies and Coles Group due to limited growth potential.

In addition, the benchmark index includes energy companies, Woodside Energy, Santos, Codan, and Origin Energy, each with 10% weightage allocation. However, the active portfolio completely avoids the energy sector, the strategic choice was to focus on sectors with more predictable growth. Energy stocks are usually cyclical and volatile as they are highly subjected to external factors such as geopolitical risk, regulatory policies, speculations, and fluctuating energy prices. These factors make energy stocks growth potential very unpredictable. The strategic decision to exclude energy companies minimises the risk exposure to external and cyclical factors. Ultimately, the active portfolio's allocation strategy is to maximise growth potential while effectively managing risk, aiming to outperform the benchmark.

These active weights have significant implications to the active portfolio potential performance relative to the index. The 60% overweight allocation to the technology sector suggests high growth potential, with the possibility of outperforming the benchmark if the sector performs as expected, positioning the portfolio to capture substantial returns. However, this concentration increases volatility, as technology stocks can be sensitive to market risk and economic conditions. The 40% consumer staples allocation, particularly the overweight in Coles, helps to stabilise the portfolio and reduce downside risk associated with the technology sector. The mix of growth and defensive stocks creates a portfolio that could outperform the benchmark. However, due to the concentration in the technology sector, the active portfolio will experience heavier fluctuations compared to the diversified and equal-weighted benchmark index.

Figure 8: Active Portfolio Share Calculation

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Use the closing prices as of September 30, 2024

Active	Date	30-Sep-24	Start Date: Monday, 30 September, 2024
	Initial Capital	\$1,000,000	End Date: Friday, 25 October, 2024

	Security Name	Symbol	Weight	Initial Price	Quantity	Total Cost
	ANZ Bank	ANZ.AX	10.00%	\$30.48	3,280	\$99,974.40
1	WiseTech Global Limited	WTC.AX	20.00%	\$137.19	1,457	\$199,885.83
2	Xero Limited	XRO.AX	20.00%	\$149.44	1,338	\$199,950.72
3	TechnologyOne Limited	TNE.AX	20.00%	\$23.86	8,382	\$199,994.52
4	Coles Group	COL.AX	20.00%	\$18.06	11,074	\$199,996.44
5	Endeavour Group	EDV.AX	10.00%	\$5.02	19,920	\$99,998.40
6	Treasury Wine Estates Limited	TWE.AX	10.00%	\$12.00	8,333	\$99,996.00

100.00%

\$999,821.91

Figure 9: Refinitiv Workspace Passive Portfolio

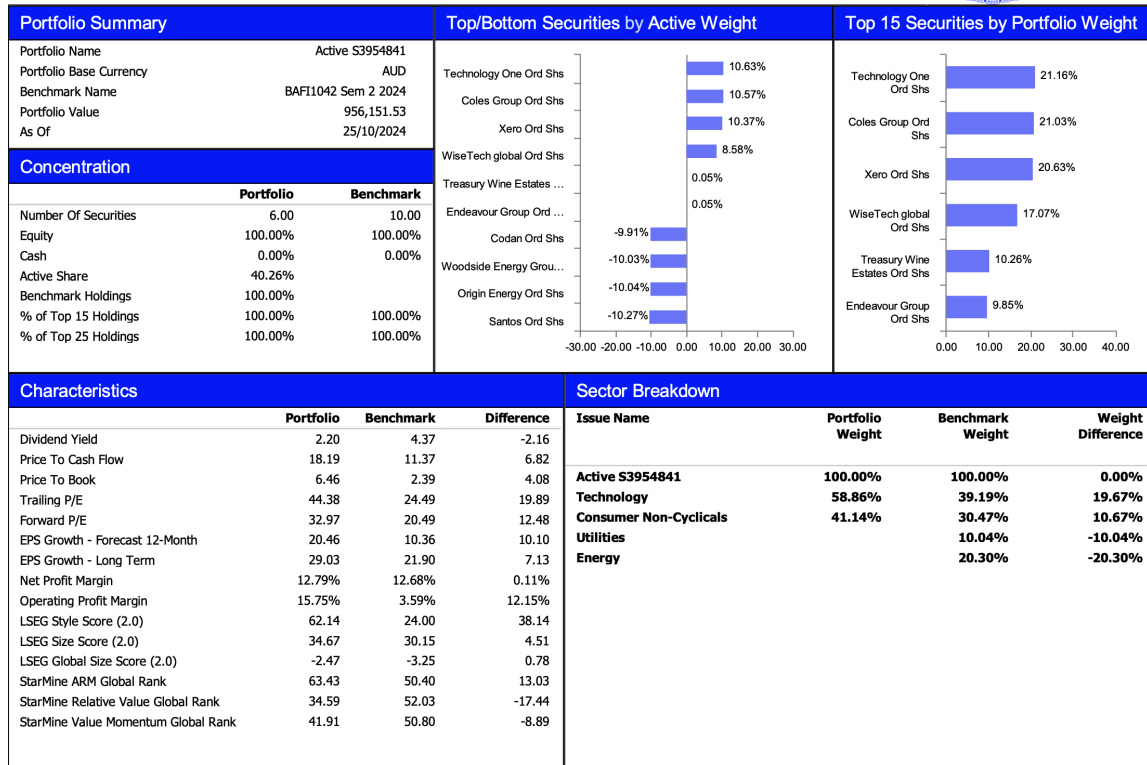
Equity Summary - Allocation



Portfolio Summary			Top/Bottom Securities by Active Weight		Top 15 Securities by Portfolio Weight		
Portfolio Name	Replication S3954841		<div>WiseTech global Ord Shs</div> <div>Xero Ord Shs</div> <div>Codan Ord Shs</div> <div>Technology One Ord Shs</div> <div>Woodside Energy Grou...</div> <div>Santos Ord Shs</div> <div>Origin Energy Ord Shs</div> <div>Endeavour Group Ord ...</div> <div>Coles Group Ord Shs</div> <div>Treasury Wine Estates ...</div>	<div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <div>0.00%</div> <td rowspan="5"><div>Technology One ...</div><div>Coles Group Ord ...</div><div>Santos Ord Shs</div><div>Xero Ord Shs</div><div>Treasury Wine Est...</div><div>Origin Energy Ord...</div><div>Woodside Energy ...</div><div>Codan Ord Shs</div><div>Endeavour Group ...</div><div>WiseTech global ...</div></td> <td rowspan="5"><div><div></div>10.53%</div><div><div></div>10.46%</div><div><div></div>10.27%</div><div><div></div>10.26%</div><div><div></div>10.21%</div><div><div></div>10.04%</div><div><div></div>10.03%</div><div><div></div>9.91%</div><div><div></div>9.80%</div><div><div></div>8.48%</div></td>	<div>Technology One ...</div> <div>Coles Group Ord ...</div> <div>Santos Ord Shs</div> <div>Xero Ord Shs</div> <div>Treasury Wine Est...</div> <div>Origin Energy Ord...</div> <div>Woodside Energy ...</div> <div>Codan Ord Shs</div> <div>Endeavour Group ...</div> <div>WiseTech global ...</div>	<div><div></div>10.53%</div> <div><div></div>10.46%</div> <div><div></div>10.27%</div> <div><div></div>10.26%</div> <div><div></div>10.21%</div> <div><div></div>10.04%</div> <div><div></div>10.03%</div> <div><div></div>9.91%</div> <div><div></div>9.80%</div> <div><div></div>8.48%</div>	
Portfolio Base Currency	AUD						
Benchmark Name	BAFI1042 Sem 2 2024						
Portfolio Value	961,052.32						
As Of	25/10/2024						
Concentration							
	Portfolio	Benchmark					
Number Of Securities	10.00	10.00					
Equity	100.00%	100.00%					
Cash	0.00%	0.00%					
Active Share	0.00%						
Benchmark Holdings	100.00%						
% of Top 15 Holdings	100.00%	100.00%					
% of Top 25 Holdings	100.00%	100.00%					
Characteristics			Sector Breakdown				
	Portfolio	Benchmark	Difference	Issue Name	Portfolio Weight	Benchmark Weight	Weight Difference
Dividend Yield	4.37	4.37	0.00				
Price To Cash Flow	11.37	11.37	0.00				
Price To Book	2.39	2.39	0.00	Replication S3954841	100.00%	100.00%	0.00%
Trailing P/E	24.49	24.49	0.00	Consumer Non-Cyclicals	30.47%	30.47%	0.00%
Forward P/E	20.49	20.49	0.00	Utilities	10.04%	10.04%	0.00%
EPS Growth - Forecast 12-Month	10.36	10.36	0.00	Energy	20.30%	20.30%	0.00%
EPS Growth - Long Term	21.90	21.90	0.00	Technology	39.19%	39.19%	0.00%
Net Profit Margin	12.68%	12.68%	0.00%				
Operating Profit Margin	3.59%	3.59%	0.00%				
LSEG Style Score (2.0)	24.00	24.00	0.00				
LSEG Size Score (2.0)	30.15	30.15	0.00				
LSEG Global Size Score (2.0)	-3.25	-3.25	0.00				
StarMine ARM Global Rank	50.40	50.40	0.00				
StarMine Relative Value Global Rank	52.03	52.03	0.00				
StarMine Value Momentum Global Rank	50.80	50.80	0.00				

Figure 10: Refinitiv Workspace Active Portfolio

Equity Summary - Allocation



Active and Passive Portfolio Summary

Evaluation of the Portfolios' Performance

Figure 11: Passive Portfolio Total Return

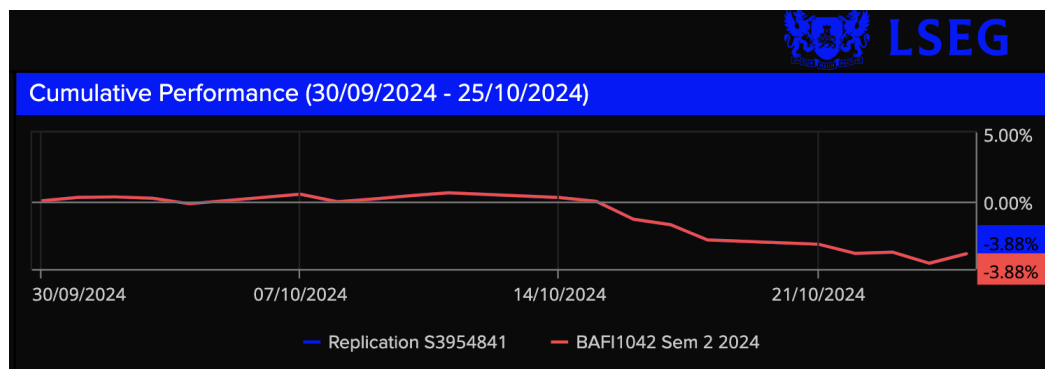


Figure 11 shows the cumulative performance of the passive portfolio (Replication S3954841) relative to Benchmark index (BAFI1042 Sem 2 2024) from September 30, 2024, to October 25, 2024. The performance of the passive portfolio (Blue line) matches the Benchmark (Red line), which is expected as the passive portfolio is designed to replicate the benchmark index risk and return profile. Both passive portfolio and benchmark experienced a cumulative performance return of -3.88% during the evaluation period. This implies that the overall

market declined during this period, affecting both passive portfolio and benchmark index similarly. Lastly, since there is minimal to no deviation between both lines indicates that the passive portfolio accurately tracks the benchmark index.

Figure 12: Active Portfolio Total Return

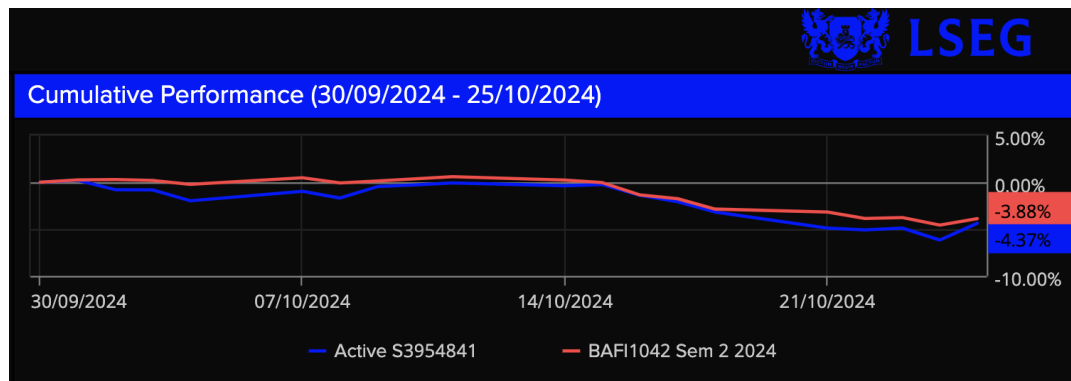


Figure 12 shows the cumulative performance of the active portfolio (Active S3954841) relative to Benchmark index (BAFI1042 Sem 2 2024) from September 30, 2024, to October 25, 2024. The performance of the active portfolio (Blue line) slightly underperforms the benchmark index, with a cumulative return of -4.27% compared to the benchmark's -3.88%. This implies that the active portfolio failed to achieve its objective of outperforming the benchmark index during the evaluation period. Both the active portfolio and benchmark experienced downtrend throughout the period, reflecting poor market conditions. However, the active portfolio with greater fluctuations indicates higher volatility relative to benchmark index, this is due to higher level of risk-taking in attempt to achieve higher returns through heavier weightage allocation in specific sectors or securities. Overall, the active portfolio failed to outperform the benchmark index, ending with a slightly lower return. Furthermore, indicating that the active stock selection and weightage allocation did not successfully capitalise on outperforming the benchmark index.

Figure 13: Passive Portfolio Active Return

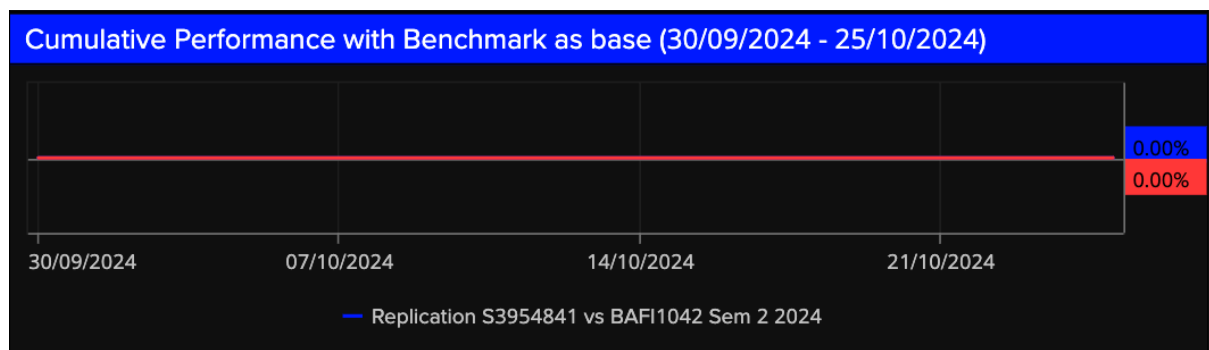


Figure 13 shows the active return of the passive portfolio in relative to benchmark. Over the evaluation period, the passive portfolio shows an active return of 0% consistently matching the benchmark. This suggests that the passive portfolio has successfully track the benchmark with matching active returns.

Figure 14: Active Portfolio Active Return

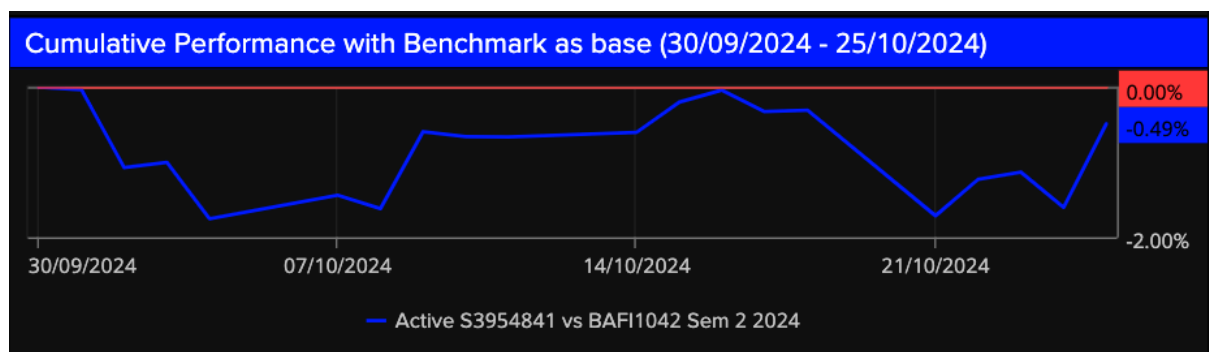
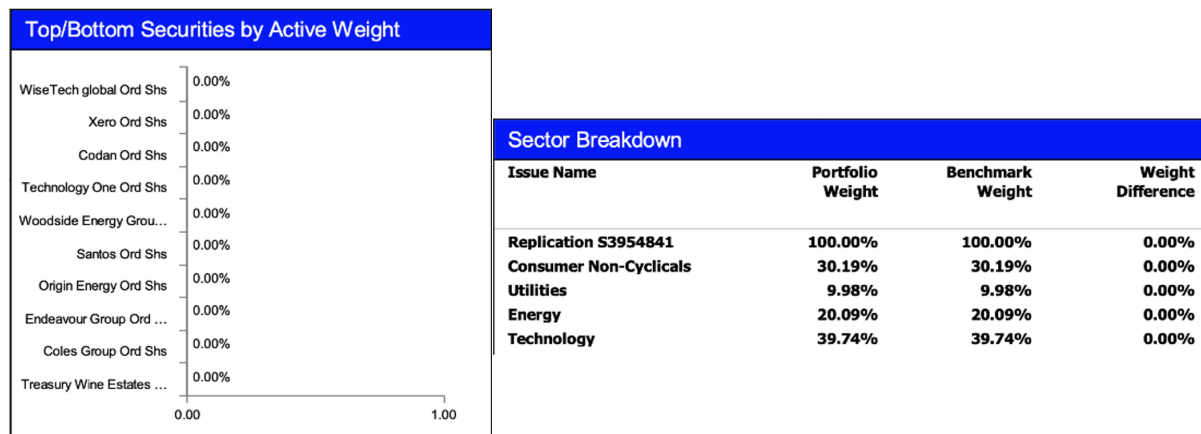


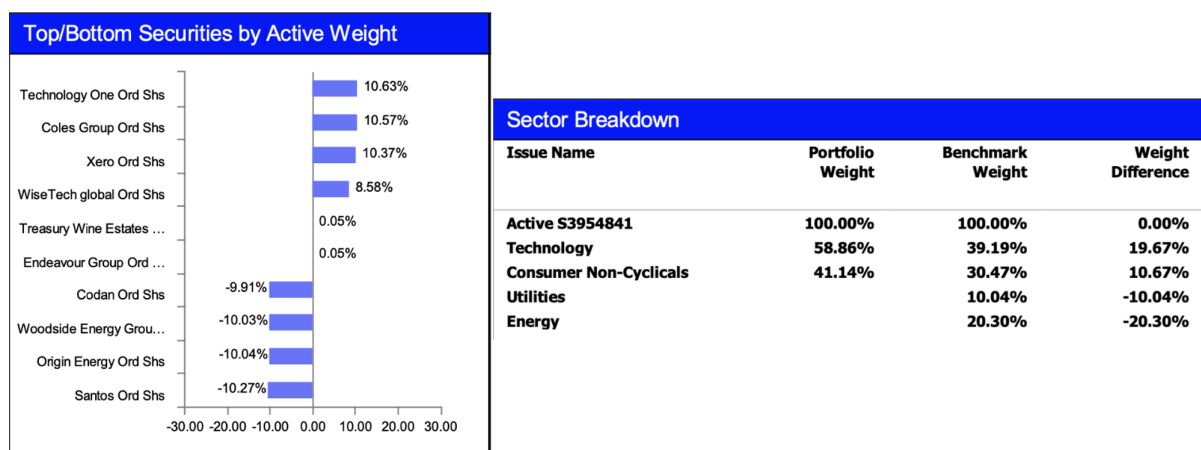
Figure 14 shows the active return of the active portfolio in relative to benchmark. Over the evaluation period, the active portfolio active return of -0.49% underperformed the benchmark, with notable volatility in its overall performance. The active portfolio performance showed fluctuations and consistently remained below benchmark, indicating that the active portfolio's higher level of risk taking did not translate into positive active return. Overall, the active portfolio failed to outperform the benchmark.

Figure 15: Passive Portfolio Weights



In the passive portfolio, the securities active weights and sector weight difference relative to benchmark is 0%, indicating that the portfolio successfully matched the benchmark without any over and underweighting in sector or individual security.

Figure 16: Active Portfolio Weights



Sector Active Weights

1. Technology Sector

- Active portfolio weight: 58.86%
- Benchmark weight: 39.99%
- Active weight: + 18.87%

The portfolio is significantly overweight in technology compared to benchmark weight. This is due to strong expectation of growth in the technology sector, which benefits from innovation and digital transformation, leading to high growth potential. Overweighting the technology sector exposes the portfolio to the sector's potential upside in earnings growth which will result in outperformance in returns relative to benchmark. In addition, shows

confidence that the technology sector will outperform the rest of the sectors. However, it exposes the portfolio to the technology's sector volatility in relative to the benchmark's diversified sector allocation, with a lower weightage on technology sector.

2. Consumer Staples Sector

- Active portfolio weight: 41.14%
- Benchmark weight: 30.47%
- Active weight: + 10.67%

The overweight in consumer staples sector relative to benchmark aims to provide stability to the active portfolio to counterbalance the higher volatility related to the technology sector. Consumer staples are usually more defensive and less cyclical, especially during economic uncertainty.

3. Energy/Utilities Sector

- Active portfolio weight: 30.34%
- Benchmark weight: 30.34%
- Active weight: - 30.34%

The complete underweight in the energy/utilities sector is due to the sector high volatility and sensitivity towards fluctuation in commodity prices and geopolitical uncertainty. While the energy/utilities sector can provide potential returns from commodity price swings, the sector associated risk outweighs the returns potential.

Securities Active Weights

1. Top overweight:

- TechnologyOne: +10.63%
- Xero Ltd: +10.37%
- Coles Group: +10.57%
- WiseTech: +8.58%

The active large weights reflect the high conviction in these individual securities. TechnologyOne, Xero Ltd, WiseTech, are technology companies, aligning with the technology sector overweight. The conviction in these individual companies comes from expectations that they will continue to drive growth through market dominance, expansion, and innovative capabilities. Coles Group, an essential goods provider, holds a large active weight in the portfolio due to its dominant market position, which is expected to drive growth

while providing defensive balance to the portfolio. However, conviction in these selected securities introduces concentrated risk exposure to individual holdings. In contrast, the benchmark has a diversified and equal-weighted set of securities, reducing concentrated exposure to individual holdings. The active portfolio's focus on growth by selecting specific securities could lead to higher returns and potential outperformance relative to benchmark if these companies perform as expected.

2. Top underweight:

- Codan: -9.91%
- Woodside Energy: -10.03%
- Origin Energy: -10.04%
- Santos: -10.27%

The top underweights, primarily in energy/utilities sector, is consistent with the sector's complete exclusion from the active portfolio. Codan, Woodside energy, Origin energy, and Santos are major players in this sector. Their underweight position relative to their benchmark weights shows the active portfolio's decision to remove exposure from this specific sector. By underweighting these securities, the active portfolio completely avoids related volatility in the energy/utilities sector but misses out on potential returns when commodity prices rise.

Figure 17: Passive Portfolio Total Risk and Active Risk

Forecast Risk Summary			
	Portfolio	Benchmark	Active
Total Risk	17.86	17.86	0.00
Beta	1.00	1.00	
Correlation	1.00	1.00	

The passive portfolio total risk of 17.86 matches the benchmark total risk, resulting in an active risk of 0. As the passive portfolio is created to replicate the benchmark, there is no active risk. This means that the passive portfolio will track the benchmark, with no deviation in volatility and sensitivity to market changes.

Figure 18: Active portfolio Total Risk and Active Risk

Forecast Risk Summary			
	Portfolio	Benchmark	Active
Total Risk	21.62	17.86	9.67
Beta	1.09	1.00	
Correlation	0.90	1.00	

The active portfolio's total risk of 21.62 is higher than benchmark's total risk of 17.86, resulting in an active risk of 9.67. The active risk indicates that the portfolio experience significant tracking error, resulting in diverging performance from the benchmark. The additional risk is due to overweight in specific sectors and securities allocation which could potentially result in higher returns but comes with increased volatility, as seen in the slightly higher beta of 1.09 relative to benchmark beta of 1, and slight misalignment with benchmark as seen in the correlation difference of 0.1.

Figure 19: Passive Portfolio Tracking Error

Realised Risk		
	Portfolio	Benchmark
Realized Alpha	0.00%	0.00%
Realized Beta	1.00	1.00
Realized Tracking Error	0.00%	0.00%
Correlation Coefficient	1.00	1.00
Standard Deviation	13.04	13.04
R-Squared	1.00	1.00

Figure 17 shows the realized tracking error for the passive portfolio relative to the benchmark index is 0%, indicating no deviation from benchmark. The perfect tracking confirms that the passive portfolio has successfully matched the benchmark over the evaluation period.

Figure 20: Active Portfolio Tracking Error

Realised Risk		
	Portfolio	Benchmark
Realized Alpha	-4.17%	0.00%
Realized Beta	0.98	1.00
Realized Tracking Error	8.76%	0.00%
Correlation Coefficient	0.83	1.00
Standard Deviation	15.56	13.04
R-Squared	0.68	1.00

Figure 18 shows the realized tracking error for the active portfolio relative to the benchmark index of 8.76% indicates that the active portfolio performance has significantly deviated from

the benchmark index. However, a high tracking error is expected as the active portfolio is designed to outperform the benchmark index.

Figure 21: Passive Portfolio Attribution Effects

Attribution Effects	
Allocation Effect	0.00
Selection Effect	0.00
Total Effect	0.00

Figure 21 shows the passive portfolio allocation, selection, and total effect are all 0. This indicates that the passive portfolio replicates the benchmark perfectly, with no active return generated. Since the passive portfolio replicates the benchmark sector allocation, the allocation effect is 0. Similarly, due to matching securities allocation, the selection effect is 0. The matching performance indicates that the passive portfolio successfully tracks the benchmark.

Figure 22: Active Portfolio Attribution Effects

Attribution Effects	
Allocation Effect	-0.55
Selection Effect	0.06
Total Effect	-0.49

Figure 22 shows the active portfolio allocation effect of -0.55 and selection effect of 0.06, which makes the total effect of -0.49. These effects implies that the active portfolio has deviated from the benchmark, resulting in a negative active return of -0.49%.

The allocation effect of -0.55 suggests that the active portfolio's overweight allocation, particularly the technology sector, negatively impacted the portfolio's performance. At the end of the evaluation period, the technology sector portfolio weight decreased from its initial weightage of 60% to 58.86% (Figure 16). This reduced weight signifies the sector's negative impact on returns, as the technology sector related volatility affected the intended growth strategy. Therefore, the overweight allocation in the technology sector did not yield the expected returns, which explains the negative allocation effect of -0.55.

The slight positive selection effect of 0.06, implies that the active selection of individual securities within industry sectors was marginally beneficial, primarily due to overweight securities allocation in TechnologyOne, Coles Group, and Xero, with each initially set at

20%. By the end of the evaluation period, these companies saw gains in their portfolio weight increasing to 21.16%, 21.03% and 20.63% respectively (Appendix 5). However, the larger reduction in portfolio weight of WiseTech Global, from 20% to 17.07% offset the gains of those companies. Resulting in a marginal positive selection effect of 0.06.

Portfolios Risk-Adjusted Returns

Figure 23: Passive Portfolio Risk-adjusted Returns

Risk Adjusted Returns		
	Portfolio	Benchmark
Treynor Ratio	-0.43%	-0.43%
Sharpe Ratio	-3.28	-3.28
Information Ratio		

The passive portfolio's Treynor ratio of -0.43% matches the benchmark's Treynor ratio of -0.43%. The matching ratio indicates that the passive portfolio return per unit of market risk is identical to the benchmark. Similarly, the matching sharpe ratio of -3.28, indicates that both portfolio's return has been less than the risk-free rate. Furthermore, the information ratio of 0, indicates that no active management in the passive portfolio, leading to no tracking error. Overall, with all the risk-adjusted returns matching benchmark, the passive portfolio successfully replicated and tracked the benchmark.

Figure 24: Active Portfolio Risk-adjusted Returns

Risk Adjusted Returns		
	Portfolio	Benchmark
Treynor Ratio	-0.47%	-0.43%
Sharpe Ratio	-3.00	-3.28
Information Ratio	-0.44	

The active portfolio's Treynor ratio of -0.47%, slightly lower than the benchmark's -0.43%, indicates that the portfolio generated a marginally lower return per unit of systematic risk relative to benchmark. The negative ratio reflects underperformance compared to the risk-free rate, with the active portfolio taking on additional systematic risk without achieving superior returns. In contrast, the sharpe ratio of -3, slightly higher than the benchmark's -3.28, suggests that the active portfolio has a marginally better risk-adjusted return compared to the benchmark. The slightly higher ratio may be due to the marginally positive selection effect, contributing to a slight better risk-adjusted return. The active portfolio's information ratio of

-0.44 indicates that the portfolio has underperformed the benchmark on a risk-adjusted basis. The poor performance is mainly due to the negative allocation effect, as the active sector allocation did not result in outperformance relative to the benchmark.

Key Market Events Impacting Portfolios Returns

WiseTech Global was the biggest contributor to the active portfolio's underperformance. Over the evaluation period, the company's share price decline sharply due to the allegations involving the CEO's personal conduct. The allegations wiped more than 20% off the company's value (Files. N, 2024). This decline significantly impacted the active portfolio, which held an overweight position in both the technology sector and WiseTech Global. As shown in appendix 5, WiseTech portfolio weight declined from an original weight allocation of 20% to 17.07%. In summary, WiseTech Global's sharp decline had a substantial impact on the active portfolio's overall performance, resulting in underperformance relative to the benchmark.

Summary of the Portfolios' Performance

In summary, the passive portfolio successfully achieve its investment goal by perfectly tracking the benchmark's return and risk. While the active portfolio failed to achieve its investment goal to outperform the benchmark's return.

Conclusion

In conclusion, based on the analysis and performance evaluation of both the passive and active portfolio, the recommendation is to adopt the passive investment strategy for long-term stability and to mitigate market volatility. The passive portfolio successfully achieved its objective of tracking the benchmark with no deviation, proving an efficient approach for steady returns.

The active portfolio, while tailored for growth with its overweight positions in technology and industry sector, exhibited higher volatility and failed to outperform the benchmark within the evaluation period. The adverse impact from sector allocation and specific stock selection, such as WiseTech Global's decline, highlights the challenge of active investment strategy,

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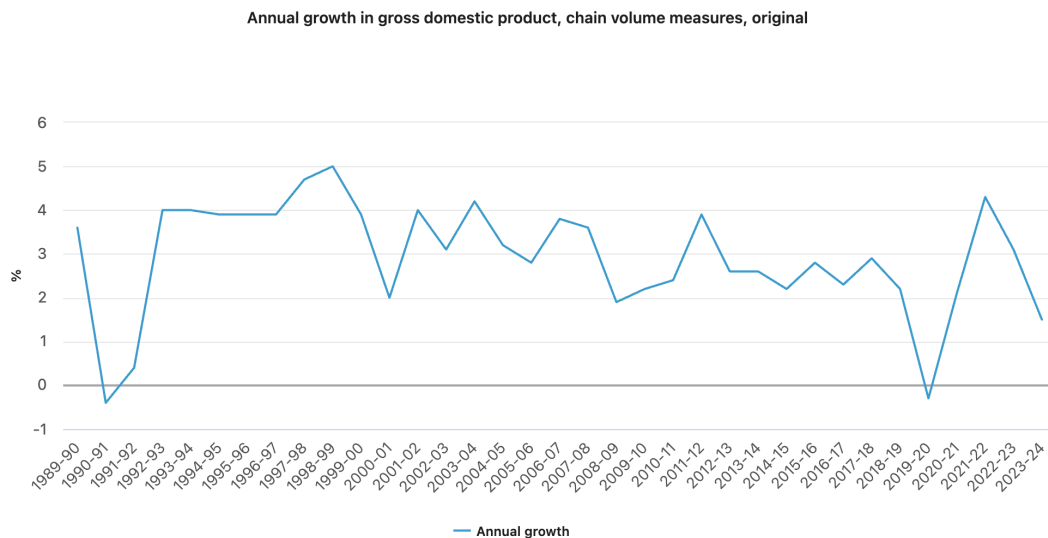
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Appendix

Appendix 1: Australia's GDP growth

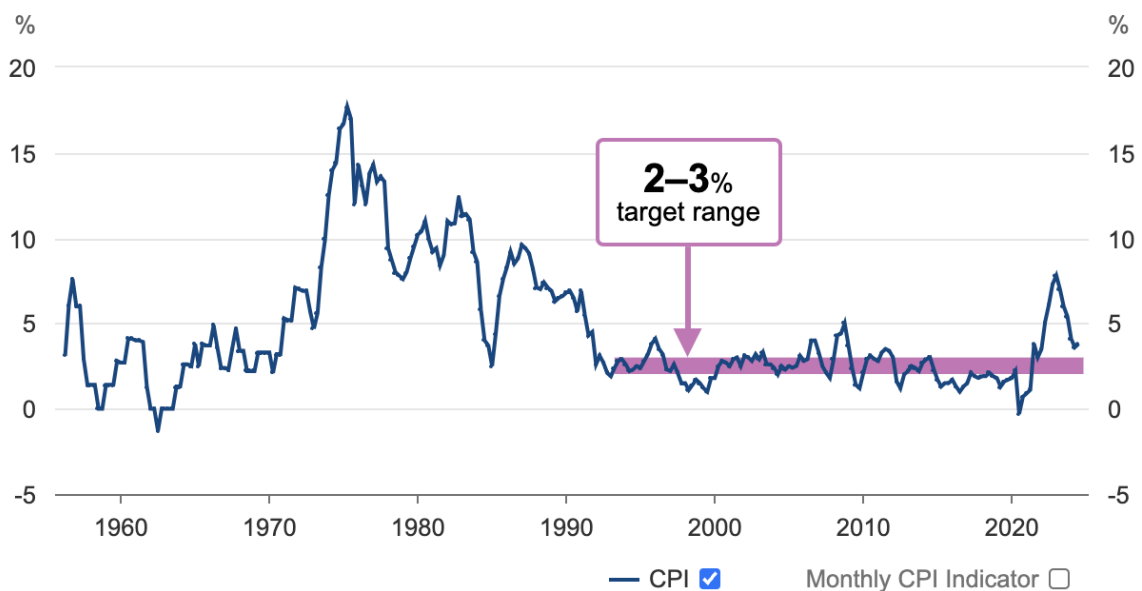


Source: Australian Bureau of Statistics, Australian National Accounts: National Income, Expenditure and Product June 2024

Appendix 2: RBA inflation Target

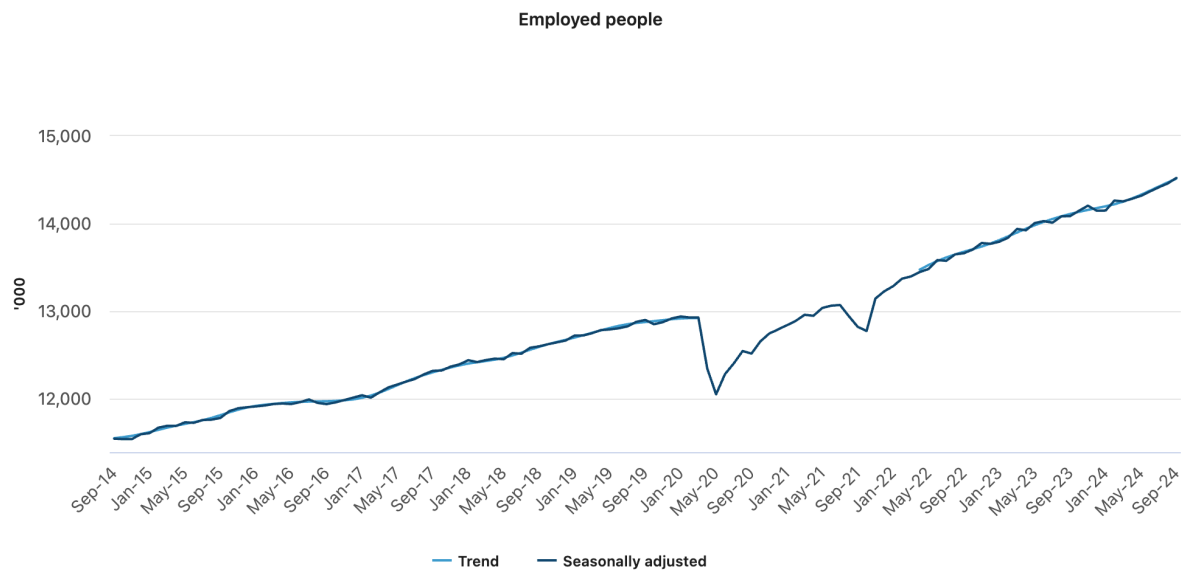
Inflation

Year-ended percentage change, excludes interest charges prior to September quarter 1998 and adjusted for the tax changes of 1999–2000



Sources: ABS; RBA

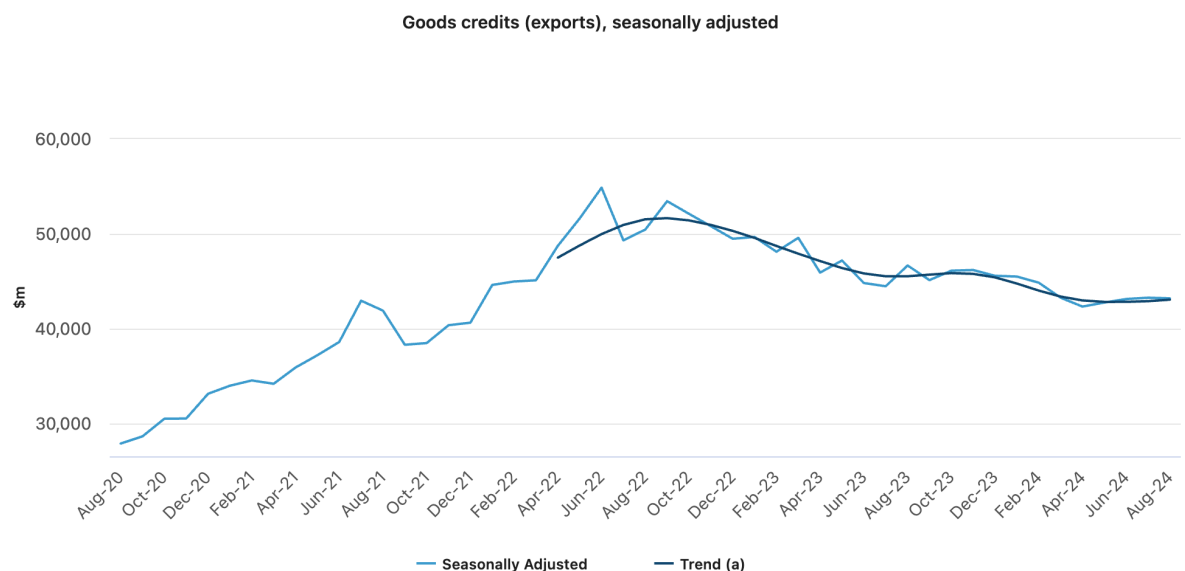
Appendix 3: Number of people employed in Australia



Large month-to-month changes occurred during the COVID-19 pandemic, resulting in multiple trend breaks. The ABS recommends caution when using trend estimates published in spreadsheets in this release for this period. Information on trend breaks can be found in Labour Force, Australia methodology, September 2024.

Source: Australian Bureau of Statistics, Labour Force, Australia September 2024

Appendix 4: Australia total export



a. Large month-to-month changes occurred during the COVID-19 pandemic, resulting in multiple trend breaks. The ABS recommends caution when using trend estimates published in spreadsheets for this period.

Source: Australian Bureau of Statistics, International Trade in Goods August 2024

Appendix 5: Active portfolio weight (25/10/24)

