S&P Dow Jones Indices

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S&P/ASX Australian Fixed Interest Indices – A Look Back on the Past Decade

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Introduction

Launched in October 2011, the <u>S&P/ASX Australian Fixed Interest</u> <u>Index</u> provides a broad measure of the performance of the Australian bond market. Since its inception, the index and its subindices have been widely utilized among asset managers, including serving as benchmarks for Australian-focused ETFs.

Evolution of the Market

In 1983, the Australian dollar was moved to a floating exchange rate, which led to its internationalization. Trading activity in the Australian dollar grew significantly and it is now one of the most actively traded currencies globally. This has played an important role in the development of the AUD bond market, which is a key market for investors both domestically and internationally.

Over the past 10 years, the overall size (by notional outstanding) of the AUD bond market—as represented by the <u>S&P/ASX Australian</u> <u>Fixed Interest 0+ Index</u>—more than doubled, increasing from AUD 615 billion in late 2013 to AUD 1,327 billion at the end of 2023 (see Exhibit 1). The outstanding notional of AUD-denominated Australian government bonds grew at a faster pace than corporate bonds during the past decade, increasing 127.3% and 82.5%, respectively.

As the market grew, Australian government and semi-government bonds remained the cornerstone of the bond market, representing close to 90% of the overall notional outstanding of the index.

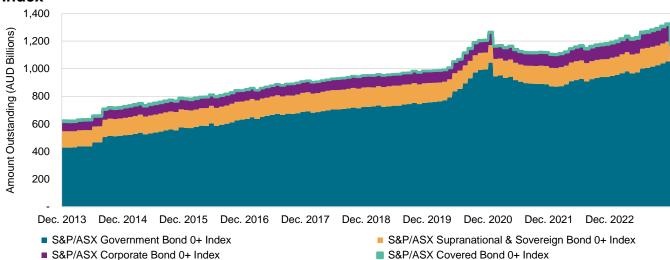


Exhibit 1: Growth in Aggregate Notional of the S&P/ASX Australian Fixed Interest 0+ Index

Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 2013, to Dec. 29, 2023. Notional amount outstanding in AUD. The S&P/ASX Covered Bond 0+ Index was launched May 5, 2016. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

Key Index Characteristics

The S&P/ASX Bond Index Series features both cash bond indices as well as a synthetic bank bill index. Of the five key indices shown in Exhibit 2, the government index had the longest duration, at 6.01 years. The yields of the indices fell within the range of 4-5%, with the corporate bond index exhibiting the highest yield, at 4.98%.

Exhibit 2: Characteristics of the S&P/ASX Australian Fixed Interest Indices

Index	Amount Outstanding (AUD Billions)	Market Value (AUD Billions)	Number of Instruments	Yield (%)	Duration (Years)
S&P/ASX Australian Fixed Interest 0+ Index	1,326.94	1,229.80	729	4.18	5.34
S&P/ASX Government Bond 0+ Index	1,051.59	962.31	153	4.05	6.01
S&P/ASX Supranational & Sovereign Bond 0+ Index	145.43	141.27	224	4.38	2.91
S&P/ASX Corporate Bond 0+ Index	119.99	116.24	330	4.98	3.09
S&P/ASX Bank Bill Index	-	-	13	4.32	0.12

Source: S&P Dow Jones Indices LLC. Data as of Dec. 29, 2023. Index performance based on total return in AUD. Duration refers to modified duration. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

The <u>S&P/ASX Bank Bill Index</u> measures the performance of the Australian short-term money market and offers a benchmark for financial institutions to measure a return on their cash holdings. It is based on the Bank Bill Swap rates, published by ASX Benchmarks Pty Limited, which are the primary short-term rates used in the financial markets for the pricing and valuation of Australian dollar securities and as lending reference rates.

Index Education 2

A Look at Index Performance and Yields

As shown in Exhibit 3, the S&P/ASX Bond Indices generally trended upward from the end of 2013 through Q4 2021, when inflation began to rise and the Reserve Bank of Australia (RBA) started to tighten monetary policy by abandoning yield curve control. Inflation rose significantly in 2022 and consequently, in May 2022, the RBA started its series of rate hikes by raising its official cash rate target. Between Q4 2021 and Q2 2022, the S&P/ASX Australian Fixed Interest 0+ Index and the S&P/ASX Government Bond 0+ Index posted double-digit percentage drawdowns, with the fixed interest bond index losing 10.96% while the government bond index lost 11.78%. The corporate segment, which generally had shorter duration compared to other segments, experienced a smaller drawdown of 9.31% and has since maintained its lead among the other segments. By end of 2023, the S&P/ASX Corporate Bond <u>0+ Index</u> rebounded the most from the lows in Q2 2022, by 8.17%.

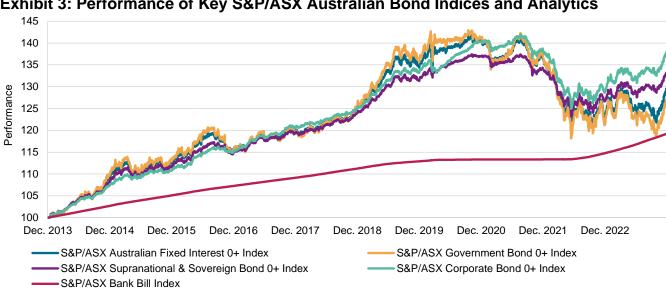


Exhibit 3: Performance of Key S&P/ASX Australian Bond Indices and Analytics

Source: Reserve Bank of Australia and S&P Dow Jones Indices LLC. Data from Dec. 31, 2013, to Dec. 29, 2023. Index performance based on total return in AUD. Indices were rebased to 100 on Dec. 13, 2013. The S&P/ASX Australian Fixed Interest 0+ Index and S&P/ASX Supranational & Sovereign Bond 0+ Index were launched Sept. 5, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The S&P/ASX Bank Bill Index climbed steadily between 2013 and 2020 and then remained almost unchanged between 2020 and the middle of 2022, when the RBA policy rate was held at 0.10%. Since the rate hikes in 2022, the index returned to an upward trajectory and caught up with the S&P/ASX Government Bond 0+ Index's performance in November 2023.

As seen in Exhibit 4, the yields of the overall fixed interest, government, supranational & sovereign and corporate bond indices have been moving in tandem in the past 10 years, while the bank bill index yields have generally reacted quickly to the RBA's policy changes and

emulated the RBA cash rate targets. The bank bill index yields tended to be on par with the government bond index yields when changes in the RBA's cash rate targets occurred. During periods when there were no changes to the policy rate, the government bond index yields rose and opened a gap above the bank bill index yields. As of the end of 2023, the bank bill index yield surpassed the government bond index yield, and when this happened in the last decade, it was usually during periods leading up to rate cuts.

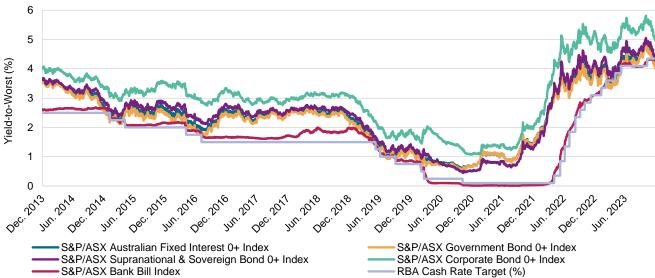


Exhibit 4: Index Yields over the Past 10 Years

Source: S&P Dow Jones Indices LLC. Data from Dec. 31, 2013, to Dec. 29, 2023. The S&P/ASX Australian Fixed Interest 0+ Index and S&P/ASX Supranational & Sovereign Bond 0+ Index were launched Sept. 5, 2014. All data prior to index launch date is back-tested hypothetical data. Past performance is no guarantee of future results. Chart is provided for illustrative purposes and reflects hypothetical historical performance. Please see the Performance Disclosure at the end of this document for more information regarding the inherent limitations associated with back-tested performance.

The S&P/ASX Corporate Bond 0+ Index maintained a visible spread over the S&P/ASX Government Bond 0+ Index from 2013 to early 2021. After the RBA cash rate target was shifted to an ultra-low level of 0.10% at the end of 2020, the spread narrowed in early 2021 to about 14 bps and remained relatively tight in 2021. It then started to widen in 2022 as the rate hike cycle proceeded and peaked at 146 bps in late 2022. It then tightened mildly in 2023 and ended the year at 94 bps.

The indices' yields reached their 10-year peaks at the end of October 2023, with the overall fixed interest index surpassing 5%. The yields then reversed the upward trend during the last two months of the year, returning to the levels they were at in the beginning of the year.

In 2019 and 2020, the RBA opted to cut the official cash rate target to support the economy in the face of unemployment, low inflation and the COVID-19 pandemic. The rate cuts were reflected in the yield changes of the S&P/ASX Bank Bill Index, as it went from 1.97% at the end of 2018 to about 0.01% at the end of 2020. During this period, the <u>S&P/ASX Government Bond 10+ Year Index</u> and S&P/ASX Corporate Bond 10+ Year Index posted substantial returns relative to the short to medium maturity buckets, as seen in Exhibit 5.

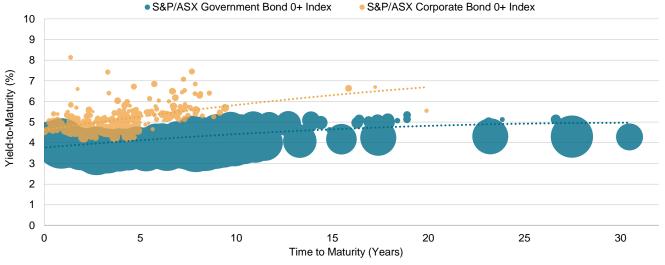
Exhibit 5: Performance of the Various Maturity Buckets over the Past Five Years

Year Inde	S&P/ASX Bank Bill	S&P/ASX	Government Bond Indices Yearly Returns (%)		S&P/ASX Corporate Bond Indices Yearly Returns (%)				
	Index Yield Changes (%)	Overall 0+	1-5 Year	5-10 Year	10+ Year	Overall 0+	1-5 Year	5-10 Year	10+ Year
2019	-1.10	7.53	3.84	8.95	13.68	6.43	5.39	11.73	20.57
2020	-0.86	4.56	2.94	5.89	5.80	5.40	4.71	8.30	12.43
2021	0.02	-3.13	-1.59	-3.76	-5.20	-1.51	-0.79	-3.11	-4.89
2022	3.07	-11.13	-4.30	-12.65	-21.12	-6.94	-4.22	-13.18	-25.96
2023	1.23	5.11	3.88	5.69	6.57	7.09	6.41	10.79	12.04

Source: S&P Dow Jones Indices LLC. Data as of Dec. 29, 2023. Index performance based on total return in AUD. Yield refers to yield-to-worst in percent. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

The policy rate was held steady until 2022, when the RBA increased rates to combat inflation. The S&P/ASX Bank Bill Index yields rose by 3.07% in 2022 and 1.23% in 2023. The 10+ year government bond and corporate bond segments suffered the most during the rate hike cycle in 2022, with double-digit losses. The same segments rebounded after the RBA paused rate hikes, although the corporate bond segments' rebound almost doubled that of the government bond segments.

Exhibit 6: Yield Curve and Yield over Duration of S&P/ASX Government Bonds and Corporate Bonds



Index	Yield over Duration (%/Years)				
Index	1-5 Years	5-10 Years	10+ Years		
S&P/ASX Government Bond Index	1.32	0.60	0.39		
S&P/ASX Corporate Bond Index	1.74	0.97	0.56		

Source: S&P Dow Jones Indices LLC. Data as of Dec. 29, 2023. Yield refers to yield-to-worst in percent. Duration refers to modified duration. Past performance is no guarantee of future results. Chart and table are provided for illustrative purposes.

The yield curves of the S&P/ASX Government 0+ Index and S&P/ASX Corporate Bond 0+ Index were rather flat at the end of 2023. Most of the corporate bonds have a time to maturity of less than 10 years. The spreads between corporate and government bonds are quite narrow compared to the level of yields.

If market expectations for central bank policy rate cuts in 2024 come true, the short end of the yield curve, which usually reacts more strongly to changes in central bank policy rates, could move downward and potentially restore the yield curve to an upward-sloping shape.

On the flip side, if inflation continues to be a concern for central banks and they opt for further hikes, the 10+ year bonds with a longer duration could be exposed to a larger drop in value despite offering a relatively low yield per unit of duration. The yield per year of duration at the end of 2023 was only 0.39% and 0.56% for 10+ year government and corporate bonds.

As per the yield curve shown in Exhibit 6, corporate bonds are concentrated in the 0 to 5 year maturity range (the average time to maturity of the index was 3.49 years at the end of 2023) and the issuers of these bonds may have to prepare for refinancing as these bonds approach their maturities.

Looking Ahead

The three-year Term Funding Facility introduced by the RBA in March 2020 to help local institutions with low-cost funding tide over the pandemic is coming to an end in June 2024. Consequently, we may see a need for local institutions to rely more on the bond markets for financing, potentially stimulating an increase in primary issuances.

Over the past few months, some market participants have been strategically preparing their positions to react to the likelihood of upcoming interest rate changes. If rates were to start declining, it's possible that the bond market could receive a boost in returns, especially in the mid to long end. However, as geopolitical tensions continue in the Middle East, oil and cargo prices remain susceptible to price shocks that could cause inflation to surge again. Coupled with a resilient economy, could it lead to a continuation of the current high interest rate environment?

Performance Disclosure/Back-Tested Data

The S&P/ASX Covered Bond 0+ Index was launched May 5, 2016. The S&P/ASX Australian Fixed Interest 0+ Index and S&P/ASX Supranational & Sovereign Bond 0+ Index were launched Sept. 5, 2014. All information presented prior to an index's Launch Date is hypothetical (back-tested), not actual performance. The back-test calculations are based on the same methodology that was in effect on the index Launch Date. However, when creating back-tested history for periods of market anomalies or other periods that do not reflect the general current market environment, index methodology rules may be relaxed to capture a large enough universe of securities to simulate the target market the index is designed to measure or strategy the index is designed to capture. For example, market capitalization and liquidity thresholds may be reduced. Complete index methodology details are available at www.spglobal.com/spdi. Past performance of the Index is not an indication of future results. Back-tested performance reflects application of an index methodology and selection of index constituents with the benefit of hindsight and knowledge of factors that may have positively affected its performance, cannot account for all financial risk that may affect results and may be considered to reflect survivor/look ahead bias. Actual returns may differ significantly from, and be lower than, back-tested returns. Past performance is not an indication or guarantee of future results. Please refer to the methodology for the Index for more details about the index, including the manner in which it is rebalanced, the timing of such rebalancing, criteria for additions and deletions, as well as all index calculations. Back-tested performance is for use with institutions only; not for use with retail investors.

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