S&P Dow Jones Indices
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EDUCATION
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Composition of Supranational, Sovereign, and Agency Bonds in Australia

INTRODUCTION

According to the S&P Dow Jones Indices (S&P DJI) methodology for the S&P/ASX Australian Fixed Interest 0+ Index Series, the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index defines a bond as supranational or sovereign if it meets certain criteria.

Supranational bonds are defined as those issued by entities formed by two or more central governments to promote economic development for the member countries (e.g., the European Investment Bank and the Asian Development Bank). Sovereign bonds include securities that have an explicit government guarantee or support from the sovereign, principal, or state government. As a consequence, the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index also excludes Australian government-backed corporate debt and debt issued by foreign agencies.

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Some index providers may have a narrower definition of supranational and sovereign bonds, which could result in a reduced number of securities. The S&P DJI definition may be described with more nuance as including supernatural, sovereign, and agency (SSA) bonds, by comparison.

THE S&P/ASX FIXED INTEREST 0+ EX-SUPRANATIONAL & SOVEREIGN BOND INDEX

Index Characteristics

The size of the SSA market in Australia is evidenced in the S&P/ASX Supranational & Sovereign Bond 0+ Index, which shows that SSAs account for 15% of the broad S&P/ASX Australian Fixed Interest 0+ Index. Approximately 37 issuers are SSA and have issued, in aggregate, AUD 139 billion in debt across 175 lines.

To understand the market impact of “removing” SSA bonds from the broader market, we have compared the S&P/ASX Australian Fixed Interest 0+ Index and the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index side by side. It is notable that the latter index has a longer weighted average maturity and modified duration as well as a slightly lower yield-to-maturity (see Exhibit 1).

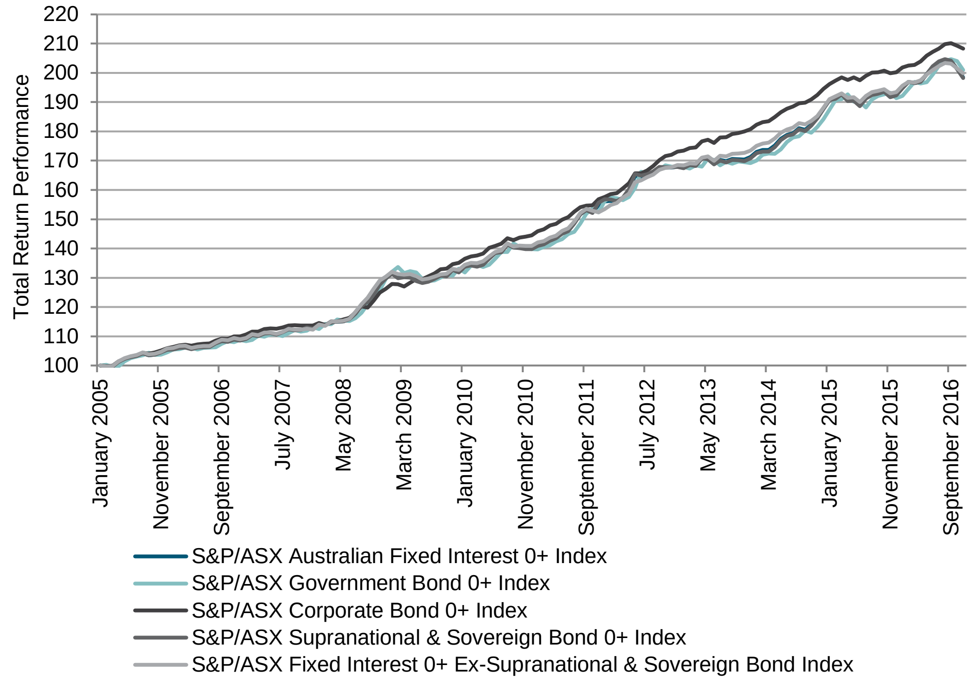
Exhibit 1: Index Characteristics

STATISTIC	S&P/ASX AUSTRALIAN FIXED INTEREST 0+ INDEX	S&P/ASX FIXED INTEREST 0+ EX-SUPRANATIONAL & SOVEREIGN BOND INDEX
Weighted Average Maturity (Years)	5.79	6.11
Yield-to-Maturity (%)	2.55	2.54
Modified Duration (Years)	4.85	5.09

Source: S&P Dow Jones Indices LLC. Data as of Dec. 12, 2016. Past performance is no guarantee of future results. Table is provided for illustrative purposes.

Exhibit 2 demonstrates the historic performance of the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index, along with other indices in the Australian fixed interest category.

Exhibit 2: Performance of Australian Fixed Interest Indices



Source: S&P Dow Jones Indices LLC. Data from to Jan. 31, 2005, to Nov. 30, 2016. Data has been rebased at par. 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.

Issuers

Foreign issuers in this sector are not natural “users” of Australian dollar-denominated debt.

Foreign issuers in this sector are not natural “users” of Australian dollar-denominated debt. Instead, they arbitrage these Australian dollar-denominated securities to provide a lower cost of funds in their base currencies—the U.S. dollar and the euro. Typically, mid- to longer-dated issues are targeted, given the shape of the swap curve (which is frequently inverted). While it can be argued that each issuer is diversifying its investor base, it is generally accepted that domestic market participants account for no more than 30% of the outstanding debt. Market participant dynamics will be discussed in more detail in a subsequent section.

The larger issuers generally have aspirations of developing a “curve” with a number of deep liquid lines, typically targeting those that are worth over AUD 1 billion. New issues tend to be around AUD 500 million, with the issuer building into that line through the sale of additional bonds called taps.

Sovereign wealth funds and central banks are significant holders of Australian debt.

Market Landscape

OFFSHORE

Sovereign wealth funds and central banks are significant holders of Australian debt; they know and understand the credits well and are active market participants in their other currency issuances. The majority of central banks now have the Australian dollar as a reserve currency, albeit as a modest percentage (2%-5% is typical), with three- to five-year maturities preferred.

Japanese market participants are also an important group. The “lifers” write 10-year Australian dollar-denominated retail investment policies. They are required to hold highly rated, maturity matching assets with the highest possible yield. SSA bonds meet this requirement. Other Japanese asset managers are also active market participants, as are Asian banks.

Thus, in the majority of cases, offshore market participants dominate the book building of a new issue, and one or more typically take a cornerstone position.

ONSHORE

By far the dominant domestic groups are the major bank balance sheets. They deal in large size on a “buy and hold” basis. They can be significant players during a new issue, when they can take a cornerstone position. Major bank interest is driven by SSA bonds that qualify as Reserve Bank of Australia (RBA) “repo eligible securities,” which are bonds that are eligible for repurchase agreements. In comparison, domestic fund managers tend to invest in SSA bonds on a value basis relative to semi-government bonds, and they generally play a supporting, secondary role in new issues.

Liquidity

Given the number of issues and their relatively large size (over AUD 1 billion), secondary market liquidity is poor. Normal ticket size in the secondary market is AUD 5 million to AUD 10 million. There are a number of factors at play.

- The majority of market participants are offshore holders.
- The majority are "buy and hold."
- The poor repo market (because the majority of market participants are based offshore) does not support market-making activities.

It is generally recognized that those that buy in volume are best served at new issue. Additionally, sellers of size (over AUD 50 million) will likely do a number of trades over several days (at a premium) to exit the position.

Leading secondary market makers are dominated by offshore banks that are also the most active at new issue—Toronto Dominion, RBC, Nomura, and Deutsche Bank. The major Australian banks are only modest players in the secondary market.

RBA Repo Facility

The RBA retains the view that requiring authorized deposit-taking institutions (ADIs) to hold only commonwealth and semi-government securities could place too much stress on the domestic bond market. Given the volume required by ADIs to meet high-quality liquid asset (HQLA) requirements, the free float of securities is limited due to the size of offshore market participant holdings (approximately 60%).[1] Thus, by expanding the pool of qualifying securities, the concentration risk of securities held by both ADIs and the RBA is reduced.

The RBA retains the view that requiring ADIs to hold only commonwealth and semi-government securities could place too much stress on the domestic bond market.

Under its committed liquidity facility (CLF), the RBA allows ADIs to pledge approved securities for purchase by the RBA under repo. 'AAA' rated SSA bonds are eligible—hence the demand displayed by the major domestic bank balance sheets. The Australian Prudential Regulation Authority applies the Basel III liquidity standards to ADIs, which require those ADIs to hold HQLAs sufficient to withstand a 30-day period of stress under the liquidity coverage ratio.[2]

Securities With an Australian Government Guarantee

When securities are purchased by the RBA under repo, the market value of those securities is adjusted by a margin ratio (i.e., haircut) in order to obtain the purchase price. The RBA applies the same margin ratio for securities issued with an Australian government guarantee as to those securities issued by supranationals and foreign governments. The margin ratio is slightly higher than those applied to commonwealth and semi-government securities;[3] hence, given the RBA view of credit quality and liquidity, securities with an Australian government guarantee fall into the SSA bond index.

[1] Rob Nicholl, CEO of the Australian Office of Financial Management. http://aofm.gov.au/speech/ceo-presentation-at-the-3rd-australian-government-fixed-income-forum-tokyo/

[2] The details of how the RBA determines eligible securities can be found here.

[3] More information on margin ratios can be found here.

Securities with an Australian government guarantee make up AUD 2.4 billion, or less than 2%, of SSA bonds currently on issue. Australia Post has the largest single issue at AUD 595 million. If the markets went through another event like the global financial crisis of 2008 and the government was compelled to support domestic borrowers (domestic banks), then this volume would most likely increase considerably.

Please note that from the perspective of S&P DJI, it is possible to create an index for the S&P/ASX Australian Fixed Interest 0+ Index Series that excludes foreign SSA bonds but includes domestic ones.

Impact on the Fund Manager

When compared to the S&P/ASX Australian Fixed Interest 0+ Index, the change in the dynamics of the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index is modest.

- Security selection is reduced, as 175 lines totaling AUD 139 billion are excluded.
- Duration lengthens by 0.24 years, while the yield drops 1 bp (see Exhibit 1).
- The number of high-credit-quality issuers drops, thereby reducing the diversification of issuers in the 'AAA' sector, but it eliminates a 4.7% exposure (at the aggregate future value level) to pure German sovereign risk (KFW Bankengruppe and Renten). This is significant when compared with the exposure to Australian sovereign risk—New South Wales Treasury Corporation (5.5%), Treasury Corporation of Victoria (3.8%), and Western Australian Treasury Corporation (4.1%).
- With SSA bonds excluded, greater weights are ascribed to government (60%) and semi-government bonds (30%), while corporate bonds remain steady (10%). Therefore, it could be argued that the index would achieve a purer Australian dollar-denominated fixed interest beta.
- With a greater weight in government and semi-government bonds, a portfolio based on the index would have an improved level of liquidity.

Excluding SSA bonds means that security selection is reduced for the index, as 175 lines totaling AUD 139 billion are excluded.

Given these portfolio dynamics, an active manager could benefit from having increased opportunities to add alpha from off-benchmark, sector- and security-selection decisions. Additionally, an index manager could largely be indifferent. Benchmark replication would be slightly easier with approximately 37 fewer issuers and overall improved liquidity.

PERFORMANCE DISCLOSURE

The S&P/ASX Government Bond 0+ Index, the S&P/ASX Supranational & Sovereign Bond 0+ Index, the S&P/ASX Australian Fixed Interest 0+ Index, the S&P/ASX Corporate Bond 0+ Index, and the S&P/ASX Fixed Interest 0+ Ex-Supranational & Sovereign Bond Index were launched on September 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. Complete index methodology details are available at www.spdji.com.

S&P Dow Jones Indices defines various dates to assist our clients in providing transparency. The First Value Date is the first day for which there is a calculated value (either live or back-tested) for a given index. The Base Date is the date at which the Index is set at a fixed value for calculation purposes. The Launch Date designates the date upon which the values of an index are first considered live: index values provided for any date or time period prior to the index's Launch Date are considered back-tested. S&P Dow Jones Indices defines the Launch Date as the date by which the values of an index are known to have been released to the public, for example via the company's public website or its datafeed to external parties. For Dow Jones-branded indices introduced prior to May 31, 2013, the Launch Date (which prior to May 31, 2013, was termed "Date of introduction") is set at a date upon which no further changes were permitted to be made to the index methodology, but that may have been prior to the Index's public release date.

Past performance of the Index is not an indication of future results. Prospective application of the methodology used to construct the Index may not result in performance commensurate with the back-test returns shown. The back-test period does not necessarily correspond to the entire available history of the Index. Please refer to the methodology paper for the Index, available at www.spdji.com 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.

Another limitation of using back-tested information is that the back-tested calculation is generally prepared with the benefit of hindsight. Back-tested information reflects the application of the index methodology and selection of index constituents in hindsight. No hypothetical record can completely account for the impact of financial risk in actual trading. For example, there are numerous factors related to the equities, fixed income, or commodities markets in general which cannot be, and have not been accounted for in the preparation of the index information set forth, all of which can affect actual performance.

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