Thornburg Income & U.S. Government Bonds

Portfolio Manager Commentary
31 March 2022

Market Review

Globally, fixed income markets finished one of the most difficult quarters in recent memory as rates soared. The upward trend for global developed market rates that began in September 2021 and was initially driven by inflation and the Fed's hawkish pivot accelerated following the Russian invasion of Ukraine. U.S. inflation measures reached a 40-year high at the end of 2021 with the November CPI print of 6.8%, as global economies continued to adjust to supply chain issues and shifts in consumer spending. Any hopes that inflationary pressures would ease were quickly dashed as inflation readings came in higher to start the year, with the most recent reading of 7.9% in February. High levels of inflation can pose serious challenges for the U.S. economy because of the negative impact it can have on consumer sentiment and consumer spending, which accounts for nearly two-thirds of GDP. Evidence of its impact was found in February retail sales figures that came in below expectations as consumers wrangled with higher prices and the Fed lowered its GDP growth expectations at their March meeting.

Along with lowered GDP expectations at the March meeting, the Fed also increased interest rates for the first time in over 3 years with a 25 basis point (bps) hike that left some market participants wanting more. At the start of the quarter, markets were anticipating three 25 bps hikes in 2022. Expectations changed dramatically by quarter-end, as the market is now anticipating eight or nine rate hikes, which implies the Fed Funds Rate will finish the year near 2.5%. The rapid change in expectations led the bond market to flash signals that a hard landing may be impossible to avoid, as the 2-year and 10-year Treasury yield inverted for the first time since 2019. An inversion of the yield curve, which is one of many predictors of a possible recession, occurs when yields on short-term bonds are higher than the yields on longer-term bonds.

The inversion of the yield curve capped off one of the wildest quarters for bond yield movements in recent memory. The Treasury curve flattened throughout the quarter, as yields were up substantially across all maturities. The 2-year U.S. Treasury yield lead the way as it rose 162 bps, finishing the quarter at 2.34%. Of the 162 bps move in the 2-year Treasury, 90 bps came in the month of March alone which was only the tenth move of that magnitude since 1980 but in all nine instances previously, the yield on the 2-year was above 11%. The flattening of the Treasury curve and rapid rise in yields led spreads on investment-grade and high-yield corporates, as well as taxable municipals, to show signs of weakness. Spreads widened through much of the quarter, and peaked in mid-March, as the Russian/Ukraine conflict caused market jitters. However, spreads retraced half of the move from their peaks, as the risk tone improved somewhat as the quarter came to an end.

> We are taking advantage of volatility to pursue attractive opportunities within fixed income.

Portfolio Managers

Jason Brady, CFA
President and CEO
Portfolio Manager

Lon Erickson, CFA
Portfolio Manager

Jeff Klingelhofer, CFA
Co-Head of Investments
Portfolio Manager

Supported by the entire Thornburg investment team

THORNBURG INCOME AND U.S. GOVERNMENT BONDS

Portfolio Manager Commentary
31 March 2022

Performance Summary

- The Thornburg Limited Term Income Strategy composite achieved a negative return of -3.72% (net of fees) during the first quarter, but outperformed the Bloomberg Intermediate Government/Credit Index, which returned -4.51%.
- The strategy's structural short duration position versus the index was a contributor to relative performance. The 5-year U.S. Treasury yield moved higher by 120 bps to end the quarter at 2.46%, while the 10-year Treasury yield ended the period 83 bps higher at 2.34%.
- The strategy's broadly defensive posture, particularly in investment-grade corporates, was beneficial given the backdrop of widening sector spreads. Our small exposure to Russia detracted as bonds were significantly impacted by the events surrounding the Russia/Ukraine conflict.

Limited Term Income Strategy Average Annual Returns (%, as of 31 Mar 2022)

In US$ terms. Returns may increase or decrease as a result of currency fluctuations.

	QTR	YTD	1-YR	3-YR	5-YR	10-YR
Limited Term Income Composite* (Net)	-3.72	-3.72	-3.03	2.25	2.45	2.74
Limited Term Income Composite ("Pure" Gross)	-3.65	-3.65	-2.73	2.57	2.78	3.10
BBG Int US Govt/Credit TR Value	-4.51	-4.51	-4.10	1.50	1.81	1.85

Limited Term US Government Strategy Average Annual Returns (%, as of 31 Mar 2022)

In US$ terms. Returns may increase or decrease as a result of currency fluctuations.

	QTR	YTD	1-YR	3-YR	5-YR	10-YR
Limited Term U.S. Government Composite (Net)	-3.51	-3.51	-3.30	0.65	1.10	1.17
Limited Term U.S. Government Composite ("Pure" Gross)	-3.42	-3.42	-2.94	1.02	1.48	1.55
BBG US Govt Int TR Value	-4.19	-4.19	-4.16	1.03	1.34	1.28

***Performance data for the Limited Term Income Strategy is from the Limited Term Income Composite, inception date of 1 February 1993. The Limited Term Income Composite includes all non-wrap discretionary accounts invested in the Limited Term Income Strategy. Returns reflect the reinvestment of income and capital gains. Performance data for the Limited Term U.S. Government Strategy is from the Limited Term U.S. Government Composite, inception date of 1 March 1988. The Limited Term U.S. Government Composite includes all discretionary non-wrap accounts invested in the Limited Term U.S. Government Strategy. Returns reflect the reinvestment of income and capital gains.**

Each composite represents all assets under management in fully discretionary, transaction fee based accounts. Returns are calculated using a time-weighted and asset-weighted calculation including reinvestment of dividends and income. Periods less than one year are not annualized. Individual account performance will vary. The performance data quoted represents past performance; it does not guarantee future results. Net of fee returns are net of transaction costs and investment advisory fees. For periods prior to 2011, net returns for some accounts in the composite also reflect the deduction of administrative expenses. Thornburg Investment Management Inc.'s fee schedule is detailed in Part 2A of its ADV brochure. Gross of fee returns are net of transaction costs. Performance results of the firm's clients will be reduced by the firm's management fees. For example, an account with a compounded annual total return of 10% would have increased by 159% over ten years. Assuming an annual management fee of 0.75%, this increase would be 142%.

Annual Return Performance Summary

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Limited Term Income Composite (Net)	5.56	7.95	0.39	3.89	0.98	3.63	2.89	1.38	5.91	7.74	-0.64
Limited Term Income Composite (Gross)	6.05	8.41	0.77	4.28	1.34	3.99	3.22	1.72	6.26	8.09	-0.33
BBG Barclays Int US Govt/Credit TR Value	5.80	3.89	-0.86	3.13	1.07	2.08	2.14	0.88	6.80	6.43	-1.44
Limited Term U.S. Government Composite (Net)	4.35	2.53	-1.37	2.86	0.81	1.52	1.16	1.33	4.16	4.31	-1.35
Limited Term Term U.S. Government Composite (Gross)	4.74	2.92	-1.00	3.25	1.20	1.90	1.53	1.71	4.55	4.69	-0.99
BBG Barclays US Govt Int TR Value	6.08	1.73	-1.25	2.52	1.18	1.05	1.14	1.43	5.20	5.73	-1.69

Past performance does not guarantee future results.

Positioning and Outlook

With inflation measures now uncomfortably high, central banks are shifting to inflation fighting mode. Indeed, the market has moved from underestimating the Fed's willingness to address inflationary pressures to now fully pricing in an aggressive hiking path. Though policymakers remain reasonably confident that they will get some help in the form of easing goods inflation in the second half of the year, rate hikes and future rate guidance suggest they are not relying on this assistance to occur. We have been modestly short duration versus the strategy's historical levels as rates have risen; however, we will selectively and opportunistically add duration relative to the current stance. We continue to believe the economy is unable to support substantially higher rates given the contribution of interest rate sensitive sectors, such as housing, to overall economic growth.

Our biggest conviction in the portfolio is within spread sectors in the securitized space. The U.S. consumer balance sheet continues to be strong, supported by robust savings rates and low unemployment. We express this view by owning consumer focused ABS, including autos, consumer loans, and solar. However, we have a more cautious outlook on the subprime consumer. Risks to the subprime consumer are observed in delinquency and default trends reverting to pre-COVID levels. Additionally, we believe this consumer cohort will be more challenged should an adverse economic scenario occur as a result of Fed tightening. Meanwhile, we find the residential mortgage credit space to be fundamentally attractive. Rising mortgage rates present a headwind to housing, though supply/demand dynamics are favorable, and homeowners have built good home equity protection. We believe there is relative value in select bonds backed by non-qualified mortgage ("Non-QM") loans, whose borrowers have above average FICO scores and who can put down a sizeable down payment.

Within U.S. corporates, valuations improved somewhat in the first quarter, though not materially enough to alter our defensive stance. Volatility remains elevated, but rising rates have improved the risk/reward on some longer duration bonds, providing for select opportunities. We look to add corporate names with less cyclicality and more attractive valuations versus recent history. Within the emerging market debt space, the Russia/Ukraine conflict and the Fed tightening cycle has changed the risk profile to the sector globally, providing us the ability to take advantage of mispriced opportunities. From a security selection standpoint, we continue to prefer defensive, export-oriented EM corporates with dollar revenue streams.

Important Information

The performance data quoted represents past performance; it does not guarantee future results.

Unless otherwise noted, the source of all data, charts, tables and graphs is Thornburg Investment Management, Inc., as of 31 March 2022.

The views expressed are subject to change and do not necessarily reflect the views of Thornburg Investment Management, Inc. This information should not be relied upon as a recommendation or investment advice and is not intended to predict the performance of any investment or market.

Holdings may change daily and may vary among accounts.

U.S. Treasury securities, such as bills, notes and bonds, are negotiable debt obligations of the U.S. government. These debt obligations are backed by the "full faith and credit" of the government and issued at various schedules and maturities. Income from Treasury securities is exempt from state and local, but not federal, taxes.

Portfolios investing in bonds have the same interest rate, inflation, and credit risks that are associated with the underlying bonds. The value of bonds will fluctuate relative to changes in interest rates, decreasing when interest rates rise.

The Bloomberg Intermediate US Government/Credit Total Return Index Value Unhedged is an unmanaged, market-weighted index generally representative of intermediate government and investment-grade corporate debt securities having maturities from one up to ten years.

The Bloomberg US Government Intermediate Total Return Index Value Unhedged is an unmanaged, market-weighted index generally representative of all public obligations of the U.S. Government, its agencies and instrumentalities having maturities from one up to ten years.

Portfolio construction will have significant differences from that of a benchmark index in terms of security holdings, industry weightings, asset allocations and number of positions held, all of which may contribute to performance, characteristics and volatility differences. Investors may not make direct investments into any index.

Asset-backed Security (ABS) - A security whose value and income payments are derived from and collateralized (or "backed") by a specified pool of underlying assets. The pool of assets is typically a group of small and illiquid assets that are unable to be sold individually. Pooling the assets into financial instruments allows them to be sold to general investors, a process called securitization, and allows the risk of investing in the underlying assets to be diversified because each security will represent a fraction of the total value of the diverse pool of underlying assets.

Basis Point (bp) - A unit equal to 1/100th of 1%. 1% = 100 basis points (bps).

A bond credit rating assesses the financial ability of a debt issuer to make timely payments of principal and interest. Ratings of AAA (the highest), AA, A, and BBB are investment-grade quality. Ratings of BB, B, CCC, CC, C and D (the lowest) are considered below investment grade, speculative grade, or junk bonds.

Credit Spread/Quality Spread - The difference between the yields of securities with different credit qualities.

Duration - A bond's sensitivity to interest rates. Bonds with longer durations experience greater price volatility than bonds with shorter durations.

Mortgage-backed Security - A type of asset-backed security that is secured by a mortgage or collection of mortgages. These securities must be grouped in one of the top two ratings as determined by a accredited credit rating agency and usually pay periodic payments that are similar to coupon payments. The mortgage must have originated from a regulated and authorized financial institution.

Mortgage Pass-Through - A security consisting of a pool of residential mortgage loans. Payments of principal, interest and prepayments are "passed through" to investors each month.

Yield Curve - A line that plots the interest rates, at a set point in time, of bonds having equal credit quality, but differing maturity dates.

Yield to Worst (YTW) - The lowest potential yield that can be received on a bond without the issuer actually defaulting.

For United Kingdom: This communication is issued by Thornburg Investment Management Ltd. ("TIM Ltd.") and approved by Robert Quinn Advisory LLP which is authorised and regulated by the UK Financial Conduct Authority ("FCA"). TIM Ltd. is an appointed representative of Robert Quinn Advisory LLP.

This material constitutes a financial promotion for the purposes of the Financial Services and Markets Act 2000 (the "Act") and the handbook of rules and guidance issued from time to time by the FCA (the "FCA Rules"). This material is for information purposes only and does not constitute an offer to subscribe for or purchase any financial instrument. TIM Ltd. neither provides investment advice to, nor receives and transmits orders from, persons to whom this material is communicated nor does it carry on any other activities with or for such persons that constitute "MiFID or equivalent third country business" for the purposes of the FCA Rules. All information provided is not warranted as to completeness or accuracy and is subject to change without notice.

This communication and any investment or service to which this material may relate is exclusively intended for persons who are Professional Clients or Eligible Counterparties for the purposes of the FCA Rules and other persons should not act or rely on it. This communication is not intended for use by any person or entity in any jurisdiction or country where such distribution or use would be contrary to local law or regulation.

For Hong Kong: This material is issued by Thornburg Investment Management (Asia) Limited ("Company"), a wholly-owned subsidiary of Thornburg Investment Management, Inc. The Company is currently licensed with the Hong Kong SFC for Type 1 regulated activity, with the CE No.: BPQ208.

This material is directed at and intended for "Professional Investors" within the meaning of Part 1 of Schedule 1 to the Securities and Futures Ordinance and is issued for information purposes only. It is not to be construed as an offer or solicitation for the purchase or sale of any financial instruments. This material has not been reviewed nor endorsed by any regulatory authority in Hong Kong, including the Securities and Futures Commission, nor has a copy been registered with the Registrar of Companies in Hong Kong. Hong Kong residents are advised to exercise caution in relation to this information.

Any prices referred to herein are indicative only and dependent upon market conditions. Past performance is not indicative of future results. Unless otherwise specified, investments are not bank deposits or other obligations of a bank, and the repayment of principal is not insured or guaranteed. They are subject to investment risks, including the possibility that the value of any investment (and income derived thereof (if any) can increase, decrease or in some cases, be entirely lost and investors may not get back the amount originally invested. The contents of this presentation have not been reviewed by any regulatory authority in the countries in which it is distributed.

Thornburg Investment Management, Inc. accepts no liability whatsoever for any direct, indirect or consequential loss arising from or in connection with any use of, or reliance on, this presentation which does not have any regard to the particular needs of any person. Thornburg Investment Management, Inc. takes no responsibility whatsoever for any use, reliance or reference by persons other than the intended recipient of this presentation.

The opinions and views herein do not take into account your individual circumstances, objectives, or needs and are not intended to be recommendations of particular financial instruments or strategies to you. This presentation does not identify all the risks (direct or indirect) or other considerations which might be material to you when entering any financial transaction. You are advised to exercise caution in relation to any information in this document. If you are in doubt about any of the contents of this document, you should seek independent professional advice.

For Australia: This communication is exclusively intended for wholesale clients only. The information contained herein is provided for informational purposes only and should not be considered a solicitation or offering of investment services, nor a solicitation to sell or buy any shares of any securities (nor shall any such securities be offered or sold to any person) in any jurisdiction where such solicitation or offering would be unlawful under the applicable laws of such jurisdiction. This material should not be relied upon as investment advice and is not a recommendation to adopt any investment strategy.

Thornburg is regulated by the U.S. Securities and Exchange Commission under U.S. laws, which differ from Australian laws, and is exempt from the requirement to hold an AFSL in accordance with class order 03/1100 in respect of the provision of financial services to wholesale clients in Australia (ARBN 605 031 909). In accordance with the relevant Australian Securities and Investments Commission Class Order, maintains such exemption from the requirements under Relevant Law to hold an Australian Financial Services Licence, and all other licences required to be held under all applicable laws governing the activities of Thornburg.

For Finland, Germany, Italy, Luxembourg, Netherlands, Norway, Singapore, Spain, South Korea, Sweden, Switzerland, Taiwan and Thailand: This is a marketing communication. This material is directed at and intended for institutional investors (as such term is defined in each jurisdiction). This material does not constitute investment advice or an offer or solicitation to sell or a solicitation of an offer to buy any product or service (nor shall any product or service be offered or sold to any person) in any jurisdiction in which an offer, solicitation, purchase or sale would be unlawful under the securities law of that jurisdiction. Any products or services referenced in this material may not be licensed in all jurisdictions, and, unless otherwise indicated, no regulator or government authority has reviewed this document, or the merits of the products and services referenced herein. If you receive a copy of this material, you may not treat this as constituting a public offering, and you should note that there may be restrictions or limitations to whom these materials may be made available.

This material is provided on a confidential basis for informational purposes only and may not be reproduced in any form or transmitted to any person without authorization. This material was prepared without considering the specific investment objectives, financial situation or particular needs of any particular person and does not identify all the risks (direct or indirect) or other considerations which might be material to you when entering any financial transaction. Before acting on any information in this material, prospective clients should inform themselves of and observe all applicable laws and regulations of any relevant jurisdictions. Prospective clients should inform themselves as to the legal requirements and tax consequences within the countries of their citizenship, residence, domicile and place of business with respect to the ongoing provision of services, and any foreign exchange restrictions that may be relevant thereto. Prospective clients are advised to exercise caution in relation to any information in this document. If you are in doubt about any of the contents of this document, you should seek independent professional advice. Thornburg Investment Management, Inc. does not accept any responsibility and cannot be held liable for any person's use of or reliance on the information and opinions contained herein. Any entity responsible for forwarding this material to other parties takes responsibility for ensuring compliance with applicable securities laws.

Thornburg is regulated by the U.S. Securities and Exchange Commission under U.S. laws, which differ from the above jurisdictions' laws.