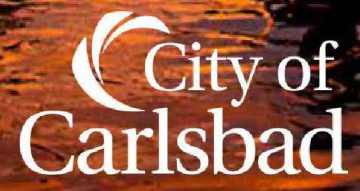


City Treasurer's Annual Report of Investments

FISCAL YEAR 2021-22



CITY
TREASURER

ANNUAL REPORT OF INVESTMENTS

Fiscal year ended June 30, 2022

Prepared by

Craig Lindholm, City Treasurer

May 9, 2023





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CITY TREASURER LETTER OF TRANSMITTAL

Fiscal Year 2021-22 Annual Report of Investment Portfolio

May 9, 2023

Honorable Mayor, City Council and residents of the City of Carlsbad,

I am pleased to present the Annual Report of Investments for the City of Carlsbad for the fiscal year 2021-22 which ended June 30, 2022. The report is intended to provide reliable information as a basis for reviewing portfolio performance and making management decisions. It also provides an archival reference.

The City Treasurer is charged with the design of an effective cash management and investment program for the City of Carlsbad and all its agencies. Among other activities, this includes arranging banking services; forecasting all cash receipts and expenditures; investing inactive cash; managing investment risk exposures; and reporting all investment activities.

This report summarizes and analyzes the activities of the investment portfolio over fiscal year 2021-22. Total portfolio assets, investment portfolio relative to total city assets, source of portfolio assets, asset allocations, yield achieved, unrealized gains and losses, and cash revenues are presented. To provide perspective to this data a summary of observations is provided about global and domestic markets for the fiscal year ended June 30, 2022. Comparisons are also made with the preceding fiscal years. Finally, a statement is offered regarding the prospects for the fiscal year 2022-23.

Sincerely,



Craig J. Lindholm,
City Treasurer

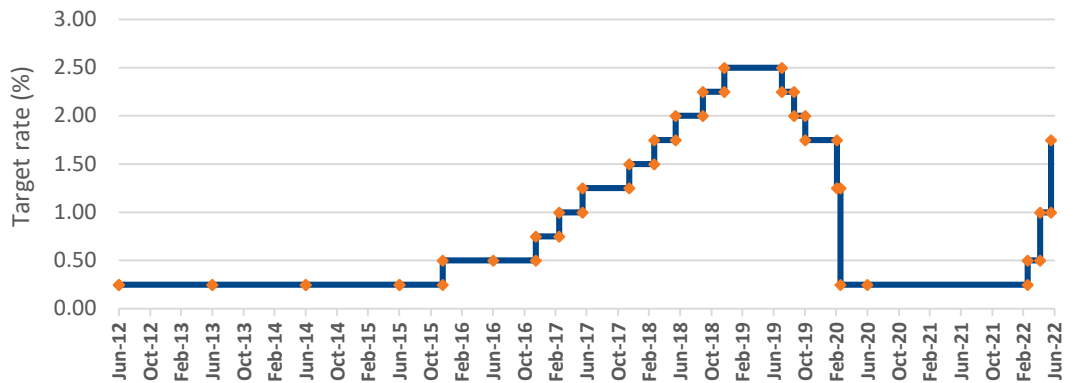
FISCAL YEAR 2021-22 MARKET REVIEW

Federal funds target rate

The federal funds target rate is a key money market rate that correlates with rates of other short-term credit arrangements. It is the interest rate that banks charge each other for overnight loans and influences many aspects of the U.S. economy. This rate is set by the Federal Open Market Committee (FOMC), the policy making body of the Federal Reserve System. The FOMC meet to discuss and set the federal funds target rate eight times a year. Their goal is to help promote economic growth.

In fiscal year 2021-22, the FOMC began increasing rates to slow the rate of inflation.

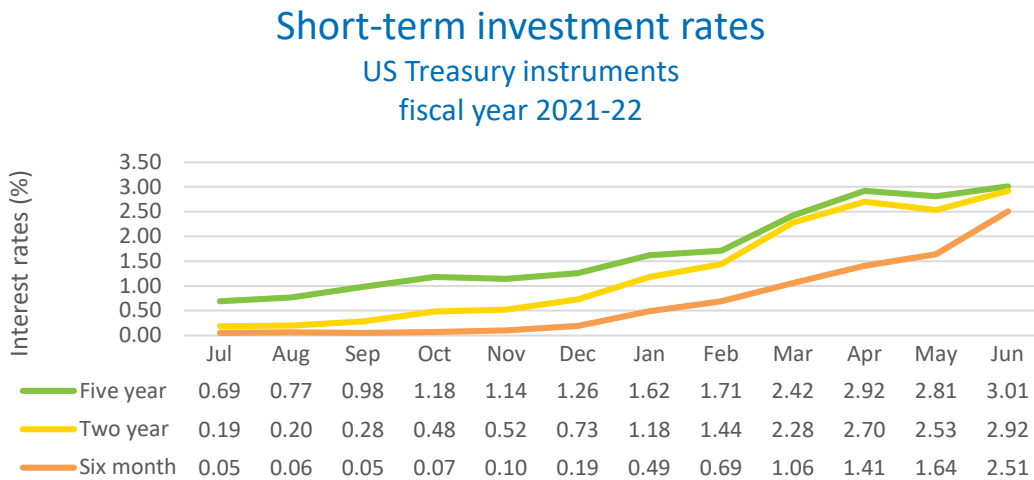
Federal funds target rate



Short-Term Interest Rates

The rates for U.S. Treasury bonds are important to all investors, but especially to bond investors. These bonds are issued by the Department of the Treasury and are a good look at how the U.S. government predicts inflation and the overall economy to move. Changes in short-term market interest rates are usually affected by the actions of the Federal Reserve.

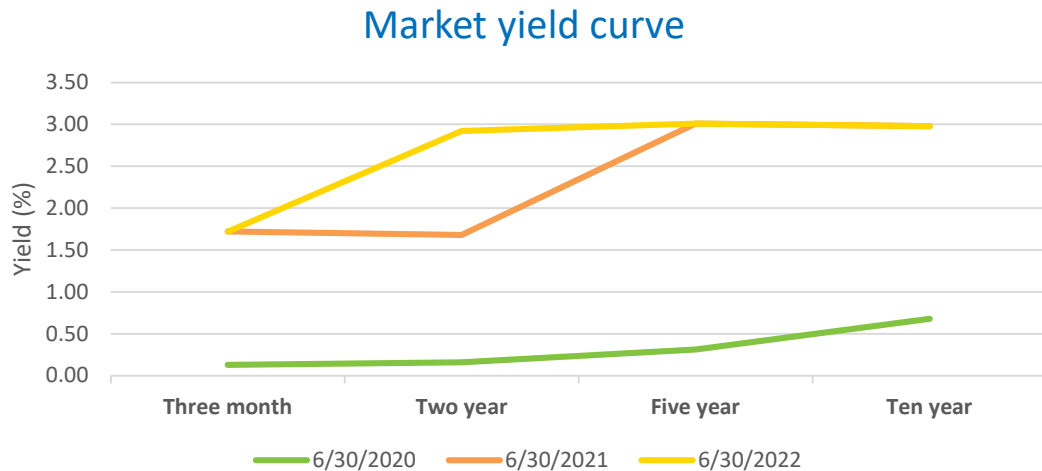
Short-term interest rates in the three exhibited trends of five-year market, two-year market, and six-month market had substantial increases during the fiscal year.



Market Yield Curve

The yield curve is a graphic presentation of the difference between short-term and longer-term interest rates of U.S. Treasury instruments on a given day. Financial analysts use it to assess the market's expectation of recession or inflation. The normal shape of the yield curve is mostly flat with a small upward slope, with short-term rates lower than longer-term rates. A normal yield curve occurs when short-term market rates are less than longer-term market rates. Normal yield curves point toward economic expansion.

Rates have remained steady for shorter and longer term investments, with an increase in two-year rates.



PORTFOLIO ANALYSIS

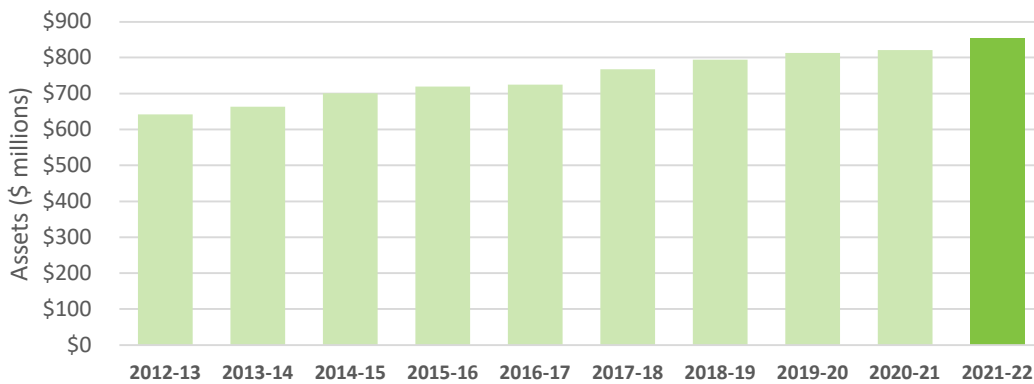
Portfolio Assets

Total assets in the investment portfolio, based on market value, stood at \$852.2 million at the end of the fiscal year; an increase of 3.76% from the prior year. This increase includes interest earned, loan payments received, and revenues in excess of expenses.

These assets are invested by the City Treasurer with the objectives of maintaining safety of principal, maintaining liquidity to meet the operating requirements of the city, and realizing the best return on investment. Safety of principal is the foremost objective of all investments made by the City Treasurer.

By pooling assets and investing a laddered portfolio the city is able to ensure funds are available as required by obligations while earning the highest possible amount of interest.

Investment portfolio
total market value of assets



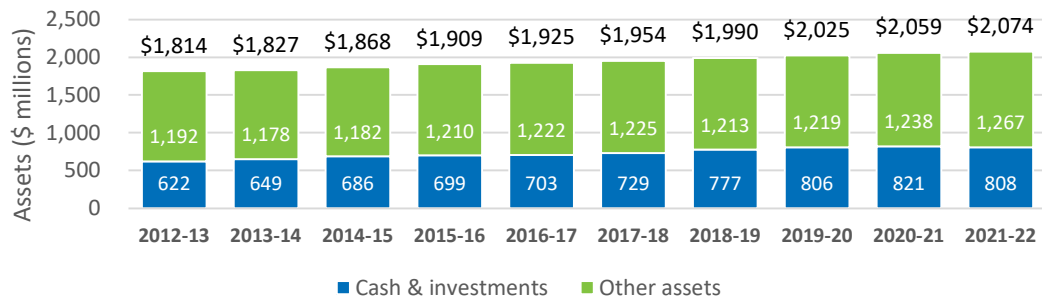
Total City Assets

The city publishes an Annual Comprehensive Financial Report at the end of each fiscal year as required by California state law and in conformity with Generally Accepted Accounting Principles and requirements prescribed by the Governmental Accounting Standards Board.

Among other information, the Annual Comprehensive Financial Report presents a statement of net position showing the total assets owned by the city and all its agencies. At the end of fiscal year 2021-22, cash and investments managed by the City Treasurer represented 38.9% of all assets reported by the city and its agencies.

Cash & investments relative to total assets

Fair market value

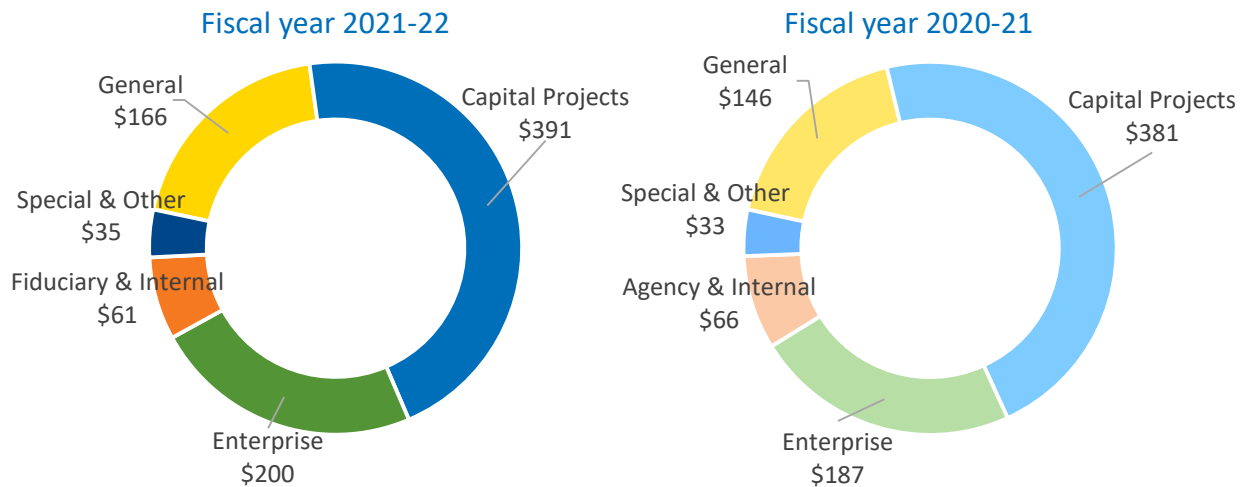


Sources of Assets

The portfolio is an internal investment pool that invests the available cash from various funds of all city agencies, city owned and fiduciary assets. The top three sources of portfolio assets calculated at book value are: capital project funds at 45.8%; enterprise funds at 23.4%; and the general fund at 19.4%. Together, these three fund types account for 88.7% of total portfolio assets.

The capital project fund includes funds for the general capital construction, traffic impact fees, public facilities fees, park development, TransNet taxes, drainage fees, special districts, infrastructure replacement and gas tax funds. Enterprise funds consist of the Carlsbad Municipal Water District, wastewater, solid waste, storm water and golf course funds.

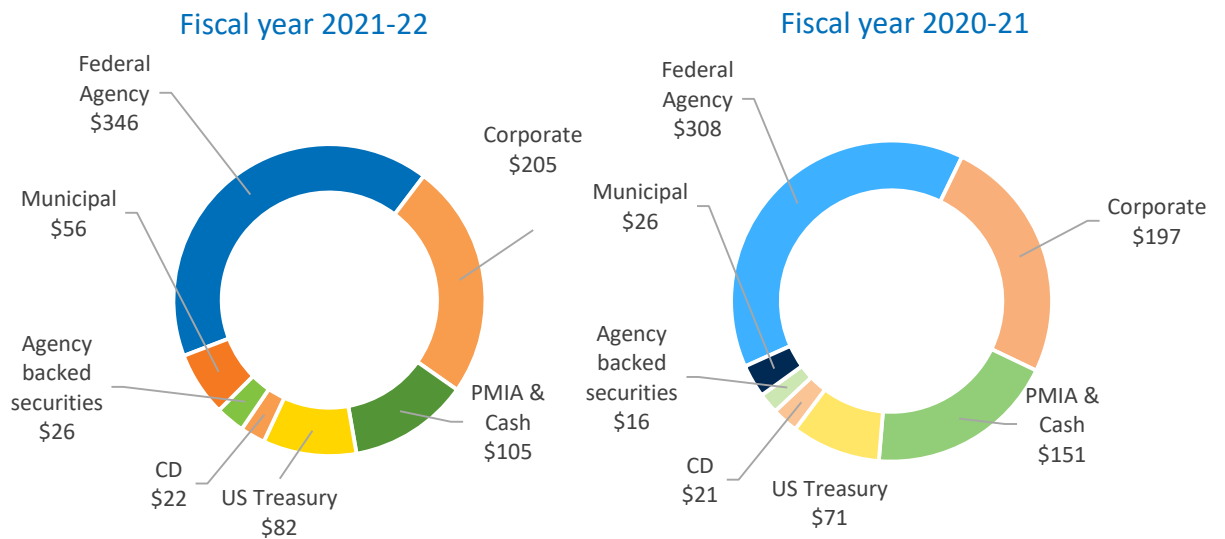
Source of pooled assets by fund type, in millions, at book value



Allocation of Assets

Investments are made in financial instruments as authorized by the City of Carlsbad Investment Policy and the California Government Code. With the exception of bank deposits and deposits in the California state Local Agency Investment Fund (LAIF), all investments are in fixed-income instruments with known maturity dates.

Asset allocation, in millions, at book value



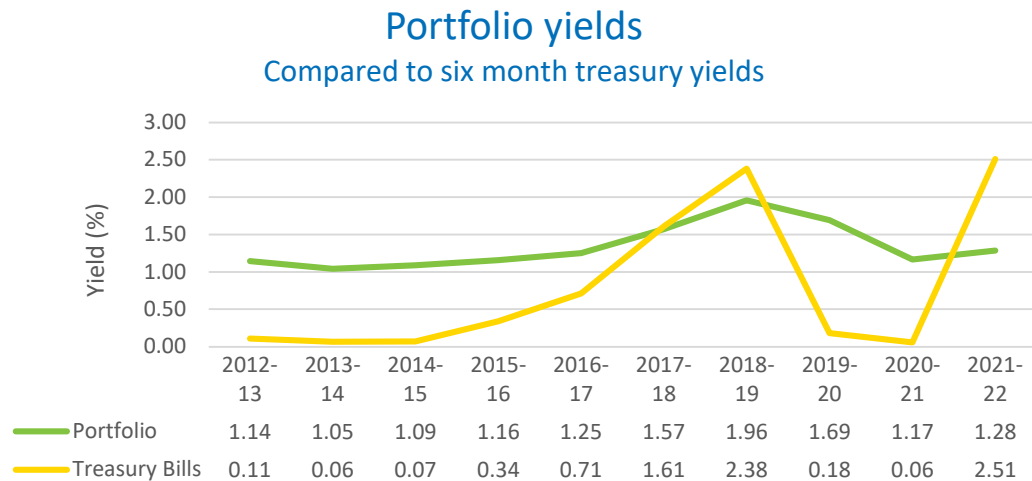
Federal agency breakdown by percentage of total portfolio

Federal Farm Credit Bank	9.99%
Federal Home Loan Bank	13.91%
Federal Home Loan Mortgage Corporation	5.46%
Supranational	3.41%
Federal National Mortgage Association	5.46%
Federal Agricultural Mortgage Corporation	2.56%
Tennessee Valley Authority	0.13%
Private Export Funding Corporation	0.31%

On June 30, 2022, 37.8% of portfolio assets were invested in federal agency bonds, 24.4% in corporate notes, 9.7% in U.S. Treasuries, 3.4% in supranational bonds, 6.6% in municipal bonds, 2.6% in certificates of deposit, 3.0% in mortgage-backed securities, and 12.5% in cash and cash equivalents.

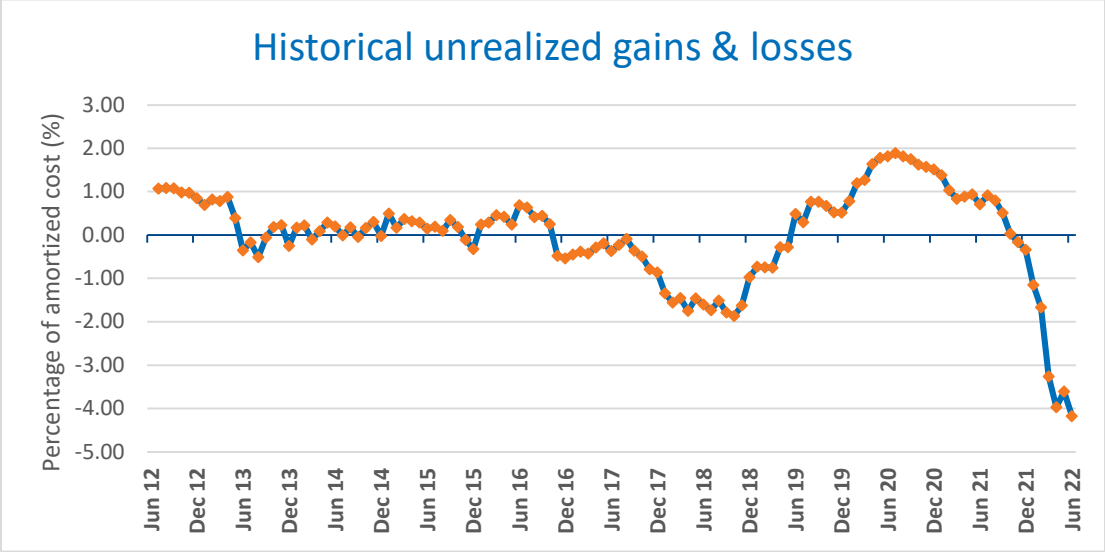
Yield

The average return of the portfolio increased from 1.17% during the prior fiscal year to 1.28% during the current fiscal year. The portfolio yield is heavily influenced by changes in short-term market interest rates. The average interest rate for six-month U.S. Treasury Bills increased in the last quarter of the fiscal year to 2.51% from 0.06% in the previous fiscal year. This graph shows the change in percentage of the portfolio over the last several fiscal years.



Investments gain and lose market value subsequent to purchase because of changes in market interest rates. When market interest rates decrease, investments made previously at higher rates will gain value. The reverse is true when market interest rates increase. These changes in value are referred to as unrealized gains and unrealized losses (commonly referred to as paper gains and paper losses). The gain or loss is not recognized until the investment is sold. Changes in value due to changes in market interest rates are normal and are to be expected.

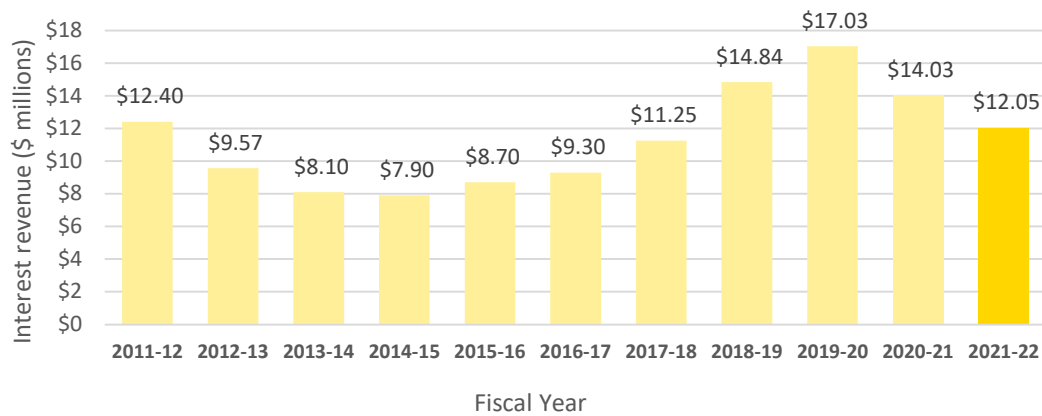
With a buy and hold policy, an objective of the city's investment policy is to achieve an average market rate of return over the economic cycle. The success in achieving this objective can be approximated with having unrealized gains and losses that are relatively equal over time. Tracking and measuring unrealized gains and losses could also reveal any presence of high-risk investments in the portfolio.



Annuity Stream

Interest income from portfolio investments represents an annual stream of revenues. This annual stream totaled \$12 million, a decrease of \$2 million from the previous fiscal year. The rest of the interest revenue is allocated to other city funds based on their value. Cash income is a function of assets in the portfolio, the market interest rates at the time of the investments, and interest payment schedules of the portfolio holdings.

Annuity stream from treasury cash interest revenue



FISCAL YEAR 2021-22 REVIEW

Now let's take a look at some of the global events impacting interest rates and returns available to investors and the City of Carlsbad. Inflation has been unleashed and the impact on payrolls and supply chains has been significant. With China's manufacturing (assembling) such a large percentage of finished goods for the world, the country's Zero COVID-19 policy hurt its ability to keep assembly lines operating. Numerous factory closures and internal protests in China erupted in November of 2022. This resulted in the relaxation of the Zero COVID-19 policy along with a decision to eliminate the continued lockdowns. China is slowly reopening its factories.

What has not turned around in China is the real estate market. The Chinese Communist Party directed massive amounts into real estate development and the result is an oversupply, inflated apartments and homes that represent a significant misallocation of land and raw materials.

Meanwhile, back in the United States, Jay Powell, chairman of the U.S. Federal Reserve Board of Governors initiated a series of rate increases through 2022 that imply a terminal rate of 5.00-5.25%. The projected date for this to be reached is Q3 of 2023.

Interest rate objectives that Powell shared with the markets are beginning to have an effect on reducing inflation. He has confirmed in a number of recent speeches that his No. 1 priority is containing inflation with a target rate of 2.0%. His second priority is to maximize employment.

Globally and within the USA, liquidity concerns are building. Historically an inverted yield curve has accurately predicted an economic slowdown – recall the 2008 global financial crisis. This describes a situation where longer dated maturities have a lower yield to maturity and shorter term maturities have a higher coupon. Currently Treasury notes with maturities of 2 years are yielding 4.22%. Attractive indeed but the question still to be asked is, where to invest proceeds at maturity? The City of Carlsbad has numerous approved fixed income investments to safely invest our resources.





CITY TREASURER
ANNUAL REPORT
OF INVESTEMENTS

APPENDICES

APPENDIX A: RISK MANAGEMENT

Risk Management

All investments are exposed to risk of some type. The objective of risk management is to identify the risks involved and establish acceptable levels of risks that are consistent with the city's investment objectives. Risk management includes managing, measuring, monitoring and reporting the various risks to which portfolio investments are exposed.

Portfolio investments are exposed to the following types of risks:

- Credit risk
 - Custodial credit risk
 - Investments
 - Deposits
 - Default credit risk
 - Concentration credit risk
- Interest rate risk
- Event risk

As of June 30, 2022, the portfolio had the following investments and cash in its internal investment pool.

Investment	Maturities	Market Value	Gain (Loss)*
U.S. agencies	Jul 2022 - Mar 2028	\$ 390,043,546	\$ (20,311,533)
Supranational	Oct 2022 - May 2026	27,133,111	(1,168,121)
Agency-backed MBS	Nov 2022 - Nov 2027	27,719,558	(1,736,602)
Municipal bonds	Mar 2023 - Aug 2027	58,336,841	(3,577,118)
Corporate notes	Jul 2022 - Jan 2028	194,443,619	(7,784,377)
Certificates of deposit	Jul 2022 - Mar 2028	20,470,981	(105,244)
CAMP		1,008,071	-
LAIF		77,534,573	-
Cash accounts		22,754,725	-
		<u>\$ 819,445,026</u>	<u>(34,682,995)</u>

*Market value less amortized cost.

APPENDIX B: DISCLOSURES

Custodial Credit Risk (Investments)

The city uses a third-party custody and safekeeping service for its investment securities. Principal Custody Solutions is under contract to provide these custodial services. Custodial credit risk is the risk that the city will not be able to recover the value of its investments in the event of a Principal Custody Solutions failure. All city investments held in custody and safekeeping by Principal Custody Solutions are held in the name of the city and are segregated from securities owned by the firm. This is the lowest level of custodial credit risk exposure.

Custodial Credit Risk (Deposits)

The city maintains cash accounts at Wells Fargo Bank. At the conclusion of each business day, balances in these accounts are “swept” into overnight investments. These overnight investments are pooled and collateralized with either U.S. government securities or U.S. agency securities. The California Code authorizes this type of investment. A small amount of cash is not swept from the Wells Fargo Bank checking accounts to cover checks that may be presented for payment. Amounts up to \$250,000 are FDIC insured.

Default Credit Risk

Default credit risk is the risk that the issuer of the security does not pay either the interest or the principal when due. The debts of most U.S. agencies are not backed by the full faith and credit of the federal government; however, because the agencies are U.S. Government-sponsored, they carry double A (AA) credit ratings. The default credit risk of these investments is minimal.

Unless otherwise exempted, the California Government Code limits investments, at the time of purchase, to the top three credit ratings: AAA, AA and A. It is the city’s policy, however, to limit investments, at the time of purchase, to the top two credit ratings (AAA and AA). As of June 30, 2022, five investments in corporate notes had a credit rating below the AA limit. These investments were made when the credit ratings were either AAA or AA and a subsequent change in rating has occurred. The California Government Code and the city’s investment policy allow the City Treasurer to determine the course of action to correct exceptions to the policy. It is the intent of the City Treasurer to hold these investments in the portfolio until maturity unless events indicate a sale should be made.

The default credit risk for corporate notes with a credit rating of single A (A) is considered by the City Treasurer to be within acceptable limits for purposes of holding to maturity and is within the California Government Code limitations.

LAIF is an investment pool managed by the California state treasurer. Its investments are short-term and follow the investment requirements of the state. As of June 30, 2022, the average maturity of the LAIF investments was 311 days. The state treasurer is not required to contract for a credit rating to be assessed for LAIF. California Government Code Section 16429.3 excludes LAIF deposits from being transferred, loaned, impounded or seized by any state agency or official.

Concentration Credit Risk

Concentration credit risk is the heightened risk of potential loss when investments are concentrated in one issuer. The California Government Code does not identify a specific percentage that indicates when concentration risk is present for any one issuer.

California Government Code Section 53601(k) requires that total investments in medium-term corporate notes of all issuers not exceed 30% of the portfolio. As of June 30, 2022, approximately 27.86% of the city's total portfolio investments were in medium-term corporate notes.

California Government Code Section 53601(o) requires that mortgage passthrough securities shall not exceed 20% of of the portfolio. As of June 30, 2022, approximately 3.47% of the city's total portfolio investments were in mortgage passthrough securities.

For concentration of investments in any one issuer, the city's investment policy requires that no more than 5% of investments in corporate notes, mortgage passthrough securities and municipal bonds be in any one issuer. There is no similar requirement in either the California Government Code or the city's investment policy for U.S. agencies. As of June 30, 2022, no investments in any one of the aforementioned securities has an issuer that exceeded 5% of total portfolio investments.

Interest Rate Risk

Interest rate risk is the risk that investments will lose market value because of increases in market interest rates. A rise in market interest rates will cause the

market value of investments made earlier at lower interest rates to lose value. The reverse will cause a gain in market value. As of June 30, 2022, the portfolio had a 4.173% unrealized loss in market value based on amortized cost.

The city's investment policy has adopted two means of limiting its exposure to market value losses caused by rising market interest rates: (1) limiting total portfolio investments to a maximum modified duration of 2.2, and (2) requiring maturing investments within one year to be equal to an amount that is not less than two thirds of the current year operating budget of \$316,997,231. As of June 30, 2022, the modified duration of the portfolio was 2.03, within the required maximum of 2.2. Investments maturing within one year were \$220,585,000, exceeding the required minimum of \$211,331,487. The city's exposure to interest rate risk is within acceptable limits.

Event Risk

Event risks include the chance that something unexpected will impede the ability of an issuer of a security to meet its obligations. These types of risks are usually short in duration, but can impair the city's ability to communicate with or use banking services. Such an event could cause a delay in collecting securities which have matured. Security risks are also within this category.

APPENDIX C: PORTFOLIO ACTIVITIES - FISCAL YEAR 2021-22

The city's portfolio balance increased 3.76% from \$821.3 million to \$852.2 million based on book value in fiscal year 2021-22. The increase of \$30.9 million does little to show the volume of cash that flows in and out of the portfolio during one fiscal year. The following table illustrates that the City Treasurer managed over \$537 million of cash inflows and cash outflows which prompted investment decisions during fiscal year.

Cash Inflows and Outflows

Bond calls	\$	43,250,000
Bond maturities		102,350,000
Bond purchases		233,310,000
Interest income		14,020,000
LAIF investments		41,000,000
LAIF withdrawals		104,000,000
	\$	<u>537,930,000</u>