UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 11-K

\boxtimes ANNUAL REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

O TRANSITION REPORT PURSUANT TO SECTION 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____to____

Commission file number 001-00566

A. Full title of the plan and the address of the plan, if different from that of the issuer named below:

Greif 401(k) Retirement Plan

B. Name of issuer of the securities held pursuant to the plan and the address of its principal executive office:

Greif, Inc. 425 Winter Road Delaware, Ohio 43015

REQUIRED INFORMATION

The following financial statements for the Greif 401(k) Retirement Plan are being filed herewith:

Description	<u>Page No.</u>
Financial Statements:	
As of December 31, 2022 and 2021 and for the year ended December 31, 2022	
Report of Independent Registered Public Accounting Firm	<u>2</u>
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Note: All other schedules required by Section 2520.103-10 of the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974 have been omitted because they are not applicable.

The following exhibits are being filed herewith:

Exhibit No.Description23.1Consent of Independent Registered Public Accounting Firm

Report of Independent Registered Public Accounting Firm

To the Audit Committee, North American Retirement Plans Committee, Plan Administrator and Participants of Greif 401(k) Retirement Plan Delaware, Ohio

Opinion on the Financial Statements

We have audited the accompanying statements of net assets available for benefits of the Greif 401(k) Retirement Plan (the "Plan") as of December 31, 2022 and 2021, the related statement of changes in net assets available for benefits for the year ended December 31, 2022, and the related notes and schedule (collectively, the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the net assets available for benefits of the Plan as of December 31, 2022 and 2021, and the changes in net assets available for benefits for the year ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These financial statements are the responsibility of the Plan's management. Our responsibility is to express an opinion on the Plan's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Plan in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Plan is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits, we are required to obtain an understanding of internal control over financial reporting an opinion on the effectiveness of the Plan's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risk of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by the Plan's management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Supplemental Information

The supplemental information in the accompanying schedule of assets (held at end of year) as of December 31, 2022 has been subjected to audit procedures performed in conjunction with the audit of the Plan's financial statements. The supplemental information is presented for the purpose of additional analysis and is not a required part of the financial statements but included supplemental information required by the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. The supplemental information is the responsibility of the Plan's management. Our audit procedures included determining whether the supplemental information reconciles to the financial statements or the underlying accounting and other records, as applicable, and performing procedures to test the completeness and accuracy of the information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement information, we evaluated whether the supplemental information, including its form and content, is presented in conformity with the Department of Labor's Rules and Regulations for Reporting and Disclosure under the Employee Retirement Income Security Act of 1974. In our opinion, the supplemental information is fairly stated, in all material respects, in relation to the financial statements as a whole.

/s/ GBQ PARTNERS LLC We have served as the Plan's auditor since 2017. Columbus, Ohio June 28, 2023

Greif 401(k) Retirement Plan Statements of Net Assets Available for Benefits

		December 31,						
(in millions)		2022		2021				
Assets:								
Investments:								
Investments at fair value (Note 3)	\$	689.3	\$	830.1				
Total Investments		689.3		830.1				
Receivables:								
Participant notes receivable		19.5		17.0				
Participant contributions receivable		0.7		0.7				
Employer contributions receivable		0.5		0.4				
Total receivables		20.7		18.1				
Net assets available for benefits	\$	710.0	\$	848.2				

See accompanying notes to financial statements.

Greif 401(k) Retirement Plan Statement of Changes in Net Assets Available for Benefits

(in millions)	Year Ended December 31, 2	2022
Additions:		
Contributions:		
Participant contributions	\$	37.8
Employer contributions		27.9
Rollover contributions		3.4
Total contributions		69.1
Interest income on participant notes receivable		0.9
Investment income:		
Dividend income		4.9
Total investment income		4.9
Other income		0.2
Total additions		75.1
Deductions:		
Benefits paid to participants		78.6
Net depreciation in fair value of investments		134.3
Administrative fees		0.2
Other expense		0.2
Total deductions		213.3
Net decrease in net assets		(138.2)
Net assets available for benefits, beginning of year		848.2
Net assets available for benefits, end of year	\$	710.0

See accompanying notes to financial statements.

Note 1 - Description of the Plan

The following description of the Greif 401(k) Retirement Plan (the "Plan") is provided for general information purposes only. Participants should refer to the plan document and summary plan description for more information.

General

The Plan is a defined contribution plan covering all employees at adopting locations of Greif Packaging LLC (both the "Sponsor" and the "Administrator"), a wholly-owned subsidiary of Greif, Inc. (the "Company"), and is subject to the provisions of the Employee Retirement Income Security Act of 1974 ("ERISA"). The Plan was adopted by the Sponsor to provide eligible employees with special incentives for retirement savings. Eligible employees participate as soon as administratively feasible following their date of hire and upon 18 years of age. The Administrator is responsible for keeping accurate and complete records with regard to the Plan, informing participants of changes or amendments to the Plan, and ensuring that the Plan conforms to applicable laws and regulations. Principal Trust Company maintains the Plan assets.

Participant Contributions

Participants may contribute up to 100 percent of their annual compensation, not to exceed the deferral limit as established annually by the Internal Revenue Code (the "IRC"), into a choice of investment options. In no event shall the amount contributed for any plan year exceed the amount allowable in computing the participant's federal income tax exclusion for that plan year. As soon as eligibility criteria are satisfied, participants are automatically enrolled with payroll deductions of 3 percent but are permitted to opt out or change the payroll deduction percentage. Until participants make an investment selection, all of their contributions are invested in a target fund investment option that corresponds to the participant's projected retirement date, which is based on the participant's current age and a retirement age of 65. Once the participant makes an investment election, participant contributions are allocated as the participant directs.

Participants may also choose to make rollover contributions (except amounts representing after-tax contributions) to the Plan of amounts received from an eligible employer plan maintained by another company or from an Individual Retirement Account.

Employer Contributions

At its discretion, the Sponsor may make matching and/or profit sharing contributions as set forth in the Plan document. Additionally, the Sponsor contributes three percent of compensation earned for all participants not eligible to participate in the Greif Pension Plan. Certain employer matching contributions are paid pursuant to collective bargaining agreements. The Sponsor's contributions are allocated to investments in the same manner as that of the participant's elective contributions.

Participant Accounts

Each participant's account is credited with the participant's contributions and the Sponsor's matching contributions and allocations of plan earnings, and is charged with an allocation of administrative expenses. Plan earnings are allocated based on the participant's share of net earnings or losses of their respective elected investment options. Allocations of administrative expenses are based on the participant's account balances, as defined in the Plan document. The benefit to which a participant is entitled is the benefit that can be provided from the participant's vested account.

Investments

Participants may direct the investment of their contributions and/or account balances into various investment options offered by the Plan and may change investments and transfer amounts between funds daily. The Plan offers 12 mutual funds at registered investment companies, 14 pooled accounts of common collective trusts, and an employer common stock fund.

Vesting

Participants have full and immediate vesting in all participant contributions and related income credited to their accounts. Employer contributions and actual earnings thereon vest ratably over a five-year period unless otherwise provided by collective bargaining agreements.

Forfeitures

Upon termination of employment, participants forfeit their unvested balances. Upon a participant's date of rehire, all years of service credited to such participant's date of termination are taken into account.

Forfeited balances of terminated participant's unvested accounts are used to reduce the administrative expenses of the Plan or future employer contributions. Unallocated forfeitures as of December 31, 2022 and 2021 were approximately \$0.5 million and \$0.8 million, respectively. Forfeitures used to reduce employer contributions in 2022 were approximately \$1.8 million.

Notes Receivable from Participants

Participants may borrow from their accounts up to a maximum equal to the lesser of \$50,000 or 50 percent of their vested account balance. Loan terms range from 1-5 years, or up to 30 years if for the purchase of a primary residence. The \$50,000 limit is reduced by the participant's highest outstanding loan balance during the preceding 12-month period. A reasonable interest rate will be determined for each loan by the Plan Administrator and is commensurate with prevailing rates at the issuance of loans. As of December 31, 2022, participant loans had maturities through 2043 at interest rates ranging from 3.25 percent to 9.25 percent.

Payment of Benefits

Withdrawals under the Plan are allowed for termination of employment, hardship (as defined by the Plan document), retirement, or the attainment of age 59 1/2. Distributions may also be made to the participant in the event of physical or mental disability or to a named beneficiary in the event of the participant's death. Distributions are made in a lump sum payment or by installment payments at the participant's election.

Employer Stock Fund

Participants can elect to invest in the employer stock fund consisting of Greif, Inc. Class A Common Stock. The fund may also hold cash or cash equivalents as necessary to satisfy the obligations of the fund. Participants may not allocate more than 20% of their future contributions to the employer stock fund.

Plan Termination

Although it has not expressed any intent to do so, the Sponsor has the right under the Plan to discontinue its contributions at any time and to terminate the Plan subject to the provisions of ERISA. In the event of Plan termination, participants will become 100% vested in their accounts.

Note 2 - Summary of Significant Accounting Policies

Basis of Presentation

The accompanying financial statements of the Plan are prepared using the accrual basis of accounting in accordance with accounting principles generally accepted in the United States of America ("GAAP").

Payment of Benefits

Benefits are recorded upon distribution to participants. There were no participants who elected to withdraw from the Plan, but had not yet been paid at December 31, 2022 and 2021.

Administrative Expenses

All investment management and transaction fees directly related to the Plan investments are paid by the Plan. Management fees and operating expenses charged to the Plan for investments are deducted from income earned on a daily basis and are not separately reflected. Consequently, management fees and operating expenses are reflected as a reduction of investment return for such investments. Additional recordkeeping and investment advisory services that are directly attributable to Plan participant's accounts are charged on a per-participant basis.

Notes Receivable from Participants

Notes receivable from participants represent participant loans that are recorded at their unpaid principal balance plus any accrued but unpaid interest. Interest income on notes receivable from participants is recorded when it is earned. Related fees are recorded as administrative expenses and are expensed when they are incurred. No allowance for credit losses was recorded as of December 31, 2022 or 2021. If a participant ceases to make loan repayments and the Plan Administrator deems the participant loan to be a distribution, the participant loan balance is reduced and a benefit payment is recorded.

Use of Estimates

The preparation of financial statements in conformity with GAAP requires the Plan's management to make estimates that affect the amounts reported in the financial statements and accompanying notes. Actual results could differ from those estimates.

Investment Valuation and Income Recognition

The Plan's investments are stated at fair value. Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). See Note 3 for further discussion and disclosures related to fair value measurements. Shares of mutual funds are valued based on quoted market prices which represent the net asset value of shares held by the Plan at year-end. Shares of Greif, Inc. Class A common stock are valued based on quoted market prices which represent the value of shares held by the Plan at year-end. The fair value of the participation units in common collective funds are based on quoted net asset values on the last business day of the Plan's year-end.

Purchases and sales of securities are recorded on a trade-date basis. Interest income is recorded as earned. Dividends are recorded on the ex-dividend date. Net depreciation includes the Plan's gains and losses on investments bought and sold as well as held during the year.

Risks and Uncertainties

The Plan provides various investment securities options to its participants. Investment securities are exposed to various risks such as interest rate, market volatility and credit risks. Due to the level of risk associated with certain investment securities, it is reasonably possible that changes in the values of investment securities will occur in the near term and that such changes could materially affect participants' account balances and the amounts reported in the statements of net assets available for benefits.

Note 3 - Fair Value Measurements

The framework for measuring fair value provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). Valuation techniques maximize the use of relevant observable inputs and minimize the use of unobservable inputs. The three levels of the fair value hierarchy under Topic 820 are described as follows:

Level 1 - Inputs to the valuation methodology are quoted prices (unadjusted in active markets for identical assets or liabilities) that the Plan can access at the measurement date.

Level 2 - Inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly, such as:

- Quoted prices for similar assets or liabilities in active markets
- · Quoted prices for identical or similar assets or liabilities in inactive markets
- Inputs other than quoted prices that are observable for the asset or liability
- Inputs that are derived principally from or corroborated by observable market data by correlation or other means

Level 3 - Inputs that are unobservable inputs for the asset or liability.

The following is a description of the valuation methodologies used for investments measured at fair value. The inputs or methodology to value securities are not necessarily an indication of risk associated with investing in those securities, and there have been no changes in the methodologies used at December 31, 2022 and 2021. Valuation technologies maximize the use of relevant observable inputs and minimize the use of unobservable inputs.

- Common stocks are valued at the closing price reported in the active market on which the individual securities are traded.
- *Mutual funds* are valued at the daily closing price as reported by the fund. Mutual funds held by the Plan are open-ended mutual funds that are registered with the Securities and Exchange Commission. These funds are required to publish their daily net asset value and to transact at that price. The mutual funds held by the Plan are deemed to be actively traded.



Common collective funds are measured at net asset value. The net asset value as provided by the trustees is used as a practical expedient to
estimate fair value. The net asset value is based on the fair value of the underlying investments held by the fund less its liabilities. This practical
expedient is not used when it is determined to be probable that the fund will sell the investment for an amount different than the reported net asset
value. The use of net asset value is deemed appropriate as the collective funds do not have a finite life, unfunded commitments or significant
restrictions on redemptions.

The preceding methods described may produce fair value calculations that may not be indicative of net realizable value or reflective of future fair values. Furthermore, although the Plan believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following tables set forth by level, within the fair value hierarchy, the Plan's assets carried at fair value as of December 31, 2022 and 2021, respectively. Classification within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

	Assets at Fair Value as of December 31, 2022						
(in millions)]	Level 1		Level 2	Level 3		Total
Mutual funds	\$	294.2	\$	_	\$ —	\$	294.2
Common stocks		11.1		—			11.1
Total assets in the fair value hierarchy		305.3		_			305.3
Investments measured at net asset value (1)		_		_			384.0
Investments at fair value	\$	305.3	\$	_	\$ —	\$	689.3

	Assets at Fair Value as of December 31, 2021						
(in millions)	 Level 1		Level 2		Level 3		Total
Mutual funds	\$ 720.6	\$	_	\$	_	\$	720.6
Common stocks	 10.0						10.0
Total assets in the fair value hierarchy	730.6		_				730.6
Investments measured at net asset value (1)	—		_		_		99.5
Investments at fair value	\$ 730.6	\$		\$		\$	830.1

(1) In accordance with Accounting Standard Codification 820-10, certain investments that were measured at net asset value per share (or its equivalent) have not been classified in the fair value hierarchy. The fair value amounts represented in this table are intended to permit reconciliation of the fair value hierarchy to the line items presented in the statement of net assets available for benefits.

Transfers Between Levels

The availability of observable market data is monitored to assess the appropriate classification of financial instruments within the fair value hierarchy. Changes in economic conditions or model-based valuation techniques may require the transfer of financial instruments from one fair value level to another. In such instances, the transfer is reported at the beginning of the reporting period.

We evaluate the significance of transfers between levels based upon the nature of the financial instrument and size of the transfer relative to the total net assets available for benefits. There were no transfers between levels during year 2022 or 2021.

Note 4 - Party-in-Interest Transactions

The Plan also invests in the common stock of Greif, Inc. As of December 31, 2022 and 2021, the Plan owned 165,616 and 164,931 shares of the Greif, Inc.'s Class A Common Stock with a fair value of \$11.1 million and \$10.0 million, respectively. As of December 31, 2022 and 2021, the cost basis of Greif, Inc.'s Class A Common Stock was \$10.3 million and \$10.2 million, respectively. Dividends earned from Greif, Inc. were \$0.3 million for the year ended December 31, 2022.

The transactions mentioned above qualify as party-in-interest transactions; however they are exempt from the prohibited transactions rules under ERISA.



Note 5 - Income Tax Status

The Plan has received a determination letter from the Internal Revenue Service ("IRS") dated August 6, 2021, stating that the Plan is qualified under Section 401(a) of the IRC and, therefore, the related trust is exempt from taxation. Subsequent to this determination by the IRS, the Plan was amended. Once qualified, the Plan is required to operate in conformity with the IRC to maintain its qualified status. The Plan Sponsor believes the Plan is being operated in compliance with the applicable requirements of the IRC and, therefore, believes the Plan, as amended, is qualified and the related trust is tax-exempt.

GAAP requires Plan management to evaluate uncertain tax positions taken by the Plan. The financial statement effects of a tax position are recognized when the position is more likely than not, based on the technical merits, to be sustained upon examination by the IRS. The Plan Administrator has analyzed the tax positions taken by the Plan, and has concluded that as of December 31, 2022 and 2021, there are no uncertain positions taken or expected to be taken. The Plan has recognized no interest or penalties related to uncertain tax positions. The Plan is subject to routine audits by taxing jurisdictions; however, there are currently no audits for any tax periods in progress. The Plan Administrator believes it is no longer subject to income tax examinations for years prior to 2021.

Note 6 - Reconciliation of Financial Statements to the Form 5500

The following is a reconciliation of net assets available for benefits per the financial statements to the Form 5500 at December 31, 2022 and 2021:

(in millions)	December 31, 2022		December 31, 2021
Net assets available for benefits per the financial statements	\$ 710.0	\$	848.2
Less: Participant contributions receivable	0.7		0.7
Less: Employer contributions receivable	0.5		0.4
Add: Rounding	0.1		—
Adjustment from contract value to fair value for common collective trust	 		2.1
Net assets available for benefits per the Form 5500	 708.9	_	849.2

The following is a reconciliation of changes within net assets available for benefits per the financial statements to the Form 5500 for the year ending December 31:

(in millions)	December 31, 2022
Net decrease per the financial statements	\$ (138.2)
Contributions receivables:	
End of year	(1.2)
Beginning of year	1.1
Rounding	0.1
Difference in reporting investment value per the financial statements and Form 5500:	
End of year	_
Beginning of year	(2.1)
Net loss per the Form 5500	\$ (140.3)

Note 7 - Subsequent Events

The Plan Sponsor has evaluated subsequent events from the statement of net assets available for plan benefits date through June 28, 2023, the date at which the financial statements were issued, and no additional events were noted which warrant adjustments to, or disclosure in, the financial statements.

Employer ID No: 36-3268123; Plan No: 001

Schedule H, Part IV, Line 4i - Schedule of Assets (Held at End of Year) December 31, 2022

(a)	(b) Identity of Issue, Borrower, Lessor, or Similar Party	(c) Description of Investment Including Maturity Date, Rate of Interest, Collateral, Par or Maturity Value	((e) C urrent Value (in millions)
	Equity Securities Mutual Funds			()
	Dodge & Cox Stock Fund	Mutual Fund	\$	33.2
	MainStay Large Cap Growth I Fund	Mutual Fund		46.6
	Vanguard Institutional Index Fund	Mutual Fund		81.2
	DFA U.S. Targeted Value I Fund	Mutual Fund		6.6
	Fidelity Extended Market Index Fund	Mutual Fund		30.5
	T. Rowe Price Mid-Cap Growth Fund	Mutual Fund		14.8
	Vanguard Small Cap Growth IndexFund	Mutual Fund		8.8
	Am Fds EuroPacific Growth R6Fund	Mutual Fund		17.9
	DFA Emerg Mkt Core Eqty Portfolio	Mutual Fund		1.2
	Fidelity Global ex US Index Fund	Mutual Fund		14.4
			\$	255.2
	Fixed Income Mutual Funds			
	PIMCO Total Return Fund	Mutual Fund	\$	31.3
	PIMCO Real Return/Institutional Fund	Mutual Fund		7.7
			\$	39.0
	Common/Collective Fixed Income Funds			
	Vanguard Target Retirement Inc Trust II	Common Collective Trust	\$	11.3
	Vanguard Target Retirement 2020 Trust II	Common Collective Trust		31.8
	Vanguard Target Retirement 2025 Trust II	Common Collective Trust		27.6
	Vanguard Target Retirement 2030 Trust II	Common Collective Trust		63.8
	Vanguard Target Retirement 2035 Trust II	Common Collective Trust		24.6
	Vanguard Target Retirement 2040 Trust II	Common Collective Trust		48.8
	Vanguard Target Retirement 2045 Trust II	Common Collective Trust		20.0
	Vanguard Target Retirement 2050 Trust II	Common Collective Trust		26.8
	Vanguard Target Retirement 2055 Trust II	Common Collective Trust		14.3
	Vanguard Target Retirement 2060 Trust II	Common Collective Trust		11.1
	Vanguard Target Retirement 2065 Trust II	Common Collective Trust		2.2
	Vanguard Target Retirement 2070 Trust II	Common Collective Trust		0.2
	Galliard Stable Return E	Common Collective Trust		96.0
	TS&W Collective/MID CAP Value TR	Common Collective Trust	\$	5.5
			\$	384.0
	Common Stock			
;	Greif, Inc. Class A Common Stock	Common Stock	\$	11.1
	Loans to Participants			
;	* Participant notes receivable	Interest rates of 3.25% to 9.25% Due dates range from 2023-2043	\$	19.5
		0	\$	708.8

* Indicates parties-in-interest to the Plan.

See accompanying Report of Independent Registered Public Accounting Firm

Signatures

Pursuant to the requirements of the Securities Exchange Act of 1934, the trustees (or other persons who administer the employee benefit plan) have duly caused this annual report to be signed on its behalf by the undersigned hereunto duly authorized.

Greif 401(k) Retirement Plan

Date: June 28, 2023

By:/s/ Bala SathyanarayananPrinted Name:Bala SathyanarayananTitle:Executive Vice President, CHRO

Consent of Independent Registered Public Accounting Firm

Greif 401(k) Retirement Plan Delaware, Ohio

We hereby consent to the incorporation by reference in the Registration Statement on Form S-8 (333-35048) of Greif, Inc. of our report dated June 28, 2022, relating to the financial statements and supplemental schedule of the Greif 401(k) Retirement Plan which appear in this Form 11-K for the year ended December 31, 2022.

/s/ GBQ Partners LLC Columbus, Ohio June 28, 2022