

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**
Washington, D.C. 20549

FORM 10-K

☒ **ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2022

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from to

Commission file number 1-37728

Donnelley Financial Solutions, Inc.

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

35 West Wacker Drive, Chicago, Illinois

(Address of principal executive offices)

36-4829638

(I.R.S. Employer
Identification No.)

60601

(ZIP Code)

Registrant's telephone number, including area code—(800) 823-5304

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock (Par Value \$0.01)	DFIN	NYSE

Securities registered pursuant to Section 12(g) of the Act: None

Indicated by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer ☒

Accelerated filer ☐

Non-accelerated filer ☐

Smaller reporting company ☐

Emerging growth company ☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issues its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to § 240.10D-1(b) ☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the shares of common stock (based on the closing price of these shares on the NYSE) on June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter, held by non-affiliates was approximately \$743.8 million.

As of February 14, 2023, 28,901,229 shares of common stock were outstanding.

Documents Incorporated By Reference

Portions of the registrant's proxy statement related to its annual meeting of stockholders scheduled to be held on May 17, 2023 are incorporated by reference into Part III of this Form 10-K.

DONNELLEY FINANCIAL SOLUTIONS, INC.
ANNUAL REPORT ON FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2022

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

Donnelley Financial Solutions, Inc. and subsidiaries (“DFIN” or the “Company”) has made forward-looking statements in this Annual Report on Form 10-K (the “Annual Report”) within the meaning of the “safe harbor” provisions of the Private Securities Litigation Reform Act of 1995 that are subject to risks and uncertainties. These statements are based on the beliefs and assumptions of the Company. Generally, forward-looking statements include information concerning possible or assumed future actions, events, or results of operations of the Company. These statements may include words such as “anticipates,” “estimates,” “expects,” “projects,” “forecasts,” “intends,” “plans,” “continues,” “believes,” “may,” “will,” “goals” and variations of such words and similar expressions are intended to identify forward-looking statements.

Forward-looking statements are not guarantees of future performance. These forward-looking statements are subject to a number of important factors, including those factors discussed in detail in Part I, Item 1A. *Risk Factors* of this Annual Report, in addition to those discussed elsewhere in this Annual Report, that could cause the Company’s actual results to differ materially from those indicated in any such forward-looking statements. These factors include, but are not limited to:

- the volatility of the global economy and financial markets, and its impact on transactional volume;
- failure to offer high quality customer support and services;
- the retention of existing, and continued attraction of additional clients;
- the growth of new technologies with which the Company may be able to adequately compete;
- the Company’s inability to maintain client referrals;
- the competitive market for the Company’s products and industry fragmentation affecting prices;
- the ability to gain client acceptance of the Company’s new products and technologies;
- delay in market acceptance of the Company’s services and products due to undetected errors or failures found in its services and products;
- failure to maintain the confidentiality, integrity and availability of systems, software and solutions;
- failure to properly use and protect client and employee information and data;
- the effect of a material breach of security or other performance issues of any of the Company’s or its vendors’ systems;
- factors that affect client demand, including changes in economic conditions, national or international regulations and clients’ budgetary constraints;
- the Company’s ability to access debt and the capital markets due to adverse credit market conditions;
- the effect of increasing costs of providing healthcare and other benefits to employees;
- changes in the availability or costs of key materials (such as ink and paper);
- failure to protect the Company’s proprietary technology;
- ability to maintain the Company’s brands and reputation;
- the retention of existing, and continued attraction of, key employees, including management;
- funding obligations arising from multiemployer pension plans obligations of the Company’s former affiliates;
- the effects of operating in international markets, including fluctuations in currency exchange rates;
- the effect of economic and political conditions on a regional, national or international basis; and
- the adverse impacts of the pandemic resulting from a novel strain of coronavirus, known as COVID-19 (“COVID-19”), and other global public health epidemics on the Company’s business and operations, including demand for DFIN services and products, and the Company’s ability to effectively manage the impacts of the coronavirus pandemic on its business operations;

Because forward-looking statements are subject to assumptions and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Undue reliance should not be placed on such statements, which speak only as of the date of this document or the date of any document that may be incorporated by reference into this document.

Consequently, readers of this Annual Report should consider these forward-looking statements only as the Company’s current plans, estimates and beliefs. Except to the extent required by law, the Company does not undertake and specifically declines any obligation to publicly release the results of any revisions to these forward-looking statements that may be made to reflect future events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. The Company undertakes no obligation to update or revise any forward-looking statements in this Annual Report to reflect any new events or any change in conditions or circumstances other than to the extent required by law.

PART I

ITEM 1. BUSINESS

Company Overview

DFIN is a leading global risk and compliance solutions company. The Company provides regulatory filing and deal solutions via its software, technology-enabled services and print and distribution solutions to public and private companies, mutual funds and other regulated investment firms, to serve its clients' regulatory and compliance needs. DFIN helps its clients comply with applicable regulations where and how they want to work in a digital world, providing numerous solutions tailored to each client's precise needs. The prevailing trend is toward clients choosing to utilize the Company's software solutions, in conjunction with its tech-enabled services, to meet their document and filing needs, while at the same time shifting away from physical print and distribution of documents, except for cases where it is still regulatorily required or requested by investors.

The Company serves its clients' regulatory and compliance needs throughout their respective life cycles. For its capital markets clients, the Company offers solutions that allow public companies to comply with applicable U.S. Securities and Exchange Commission ("SEC") regulations including filing agent services, digital document creation and online content management tools that support their corporate financial transactions and regulatory reporting; solutions to facilitate clients' communications with their investors; and virtual data rooms and other deal management solutions. For investment companies, including mutual fund, insurance-investment and alternative investment companies, the Company provides solutions for creating, compiling and filing regulatory communications as well as solutions for investors designed to improve the access to and accuracy of their investment information.

Technological advancements, regulatory changes, and evolving workflow preferences have led to the Company's clients managing more of the financial disclosure process themselves, changing the marketplace for the Company's services and products. DFIN's strategy in its Software Solutions segments (CM-SS and IC-SS, as defined below) aligns with the changing marketplace by focusing the Company's investments and resources in its advanced software solutions, primarily ActiveDisclosure®, Arc Suite® software platform ("Arc Suite") and Venue® Virtual Data Room ("Venue"), while making targeted investments, such as the Company's acquisition of Guardium Holdings Limited ("Guardium") in 2021, to further enhance product features. In its Compliance & Communications Management segments (CM-CCM and IC-CCM, as defined below), the Company's strategy focuses on maintaining its market-leading position by offering a high-touch, service-oriented experience, using its unique combination of tech-enabled services and print and distribution capabilities.

Capital Markets

The Company provides software solutions, tech-enabled services and print and distribution solutions to public and private companies for deal solutions and compliance to companies that are, or are preparing to become, subject to the filing and reporting requirements of the Securities Act of 1933, as amended (the "Securities Act") and the Securities Exchange Act of 1934, as amended (the "Exchange Act"). Capital markets clients leverage the Company's software offerings, proprietary technology, deep industry expertise and experience to successfully navigate the SEC's specified file formats when submitting compliance documents through the Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") system for their transactional and ongoing compliance needs. The Company assists its capital markets clients throughout the course of initial public offerings ("IPOs"), secondary offerings, mergers and acquisitions ("M&A"), public and private debt offerings, leveraged buyouts, spinouts, special purpose acquisition companies ("SPAC") and subsequent de-SPAC transactions and other similar transactions. In addition, the Company provides clients with compliance solutions to prepare their ongoing required Exchange Act filings that are compatible with the SEC's EDGAR system, most notably Form 10-K, Form 10-Q, Form 8-K and proxy filings. These solutions include the Company's traditional full-service EDGAR filing preparation and filing agent services, tech-enabled services and print and distribution solutions as well as the Company's software solutions, ActiveDisclosure, Venue, eBrevia and others. In 2022, approximately 31% of capital markets net sales related to software solutions, of which approximately 55% related to Venue, the Company's transactional solution, and 45% related to compliance and other software solutions. In 2022, tech-enabled services and print and distribution solutions accounted for approximately 69% of capital markets net sales, of which approximately 58% were transactional in nature and 42% were compliance in nature. In 2021, approximately 24% of capital markets net sales related to software solutions, of which approximately 58% related to the Company's transactional solution and 42% related to compliance and other software solutions. In 2021, tech-enabled services and print and distribution solutions accounted for approximately 76% of capital markets net sales, of which approximately 72% were transactional in nature and 28% were compliance in nature.

Transaction Solutions

The Company helps capital markets clients throughout the course of public and private business transactions. For M&A transactions, the Company supports deal participants in creating transaction-related registration statements, proxy statements and prospectuses, filing client documents as their filing agent through the EDGAR filing system and managing print for distribution to stockholders. The Company also provides registration statement and prospectus preparation and filing services through the Company's filing solution and software solution, ActiveDisclosure, data room and secure file sharing through Venue as well as contract analytics through eBrevia.

The Company's Venue solution is a highly secure data room platform that allows clients to share confidential information in real-time throughout the transaction lifecycle. Clients can also maintain control over sensitive data when conducting due diligence for M&A transactions, raising capital, dual-tracking an IPO or developing a document repository. Specifically, companies have used Venue to securely organize, manage, distribute and track corporate governance, financing, legal and other documents in an online workspace accessible to internal and outside advisors. Via integration with the Company's eBrevia solution, Venue uses artificial intelligence to analyze documents to help clients better understand their content and make informed decisions. Venue's auto-redaction capability, powered by Guardum, also allows clients to protect personally identifiable information ("PII") using efficient, secure, systematically burned-in redaction.

The Company's private conference facilities offer around-the-clock services to support the transaction process, production platform and service delivery model for a fully-virtual experience while replicating the in-person experience. The Company has seen clients utilizing the range of options available to them, including a hybrid approach with working group members working both virtually and in-person during drafting sessions for their transactions. While the Company has significantly reduced its private conferencing facilities footprint, the service helps clients maintain confidentiality in deal negotiations and provides clients a place to host in-person working groups to meet, strategize and prepare documents for the transaction deal stream.

Compliance Solutions

The Company provides compliance solutions to capital markets clients in preparing the Exchange Act filings that are compatible with the SEC's EDGAR system. Capital markets clients leverage the Company's deep industry expertise and experience to successfully navigate the SEC's specified file formats when submitting compliance documents through the EDGAR system.

In 2021, the Company launched an entirely new cloud-based product, ActiveDisclosure ("ActiveDisclosure"), which provides new features such as built-in collaboration tools and eXtensible Business Reporting Language ("XBRL") client-tagging capability. The new product replaced ActiveDisclosure 3.0, and as of December 31, 2022, less than 15% of the Company's ongoing ActiveDisclosure client base remain on ActiveDisclosure 3.0. The Company expects to decommission ActiveDisclosure 3.0 by the end of the first half of 2023, once the transition of clients has been completed. ActiveDisclosure provides capital markets clients with end-to-end solutions to collaborate, tag, validate and file with the SEC efficiently. By leveraging its software platform, ActiveDisclosure brings teams together across departments, functions and geographies in real time to create and edit filings and other documents across devices, simultaneously, while providing detailed audit trails for tracking every change made and employing interactive notifications for important tasks or comments. ActiveDisclosure utilizes native Microsoft Excel reporting capabilities of financial consolidation systems to seamlessly flow changes throughout an entire document automatically, reducing risk and providing additional assurance to clients. The Company employs stringent data security and privacy practices to provide that information is encrypted. The Company also engages third parties to perform annual SOC2 Type II compliance audits and penetration/vulnerability testing.

The Company also supports capital markets clients in meeting SEC-mandated regulatory filing requirements, including tagging filings in the XBRL format. The Company provides clients with a suite of tagging, review and validation tools to assist them with the XBRL requirements. The Company has accounting and finance professionals that assist its capital markets clients with the processes of tag selection, tag review, file creation, validation and distribution.

The Company helps capital markets clients elevate their proxy filings from compliance documents to investor-focused strategic communications tools with Proxy Design services. The Company's end-to-end proxy solutions include advisory services, proxy strategy and design, disclosure management, EDGAR filing and expertise, online hosting solutions, print production, distribution and annual meeting services. Through a strategic relationship, the Company can also simplify and facilitate the annual meeting and proxy process for its capital markets clients through the deployment of project management services and state-of-the-art voting and tabulation technology. This arrangement allows the Company to provide end-to-end annual and special meeting services, from fulfillment and distributions of proxy materials, to the centralization of communications for all investors, to hosting of virtual stockholder meetings and tabulation of voting results.

The Company provides additional compliance solutions through strategic relationships, including a full suite of audit management and compliance solutions for Sarbanes-Oxley Act ("SOX") compliance, operational audits, IT compliance, enterprise risk management and workflow management.

Investment Companies

The Company provides software solutions, tech-enabled services and print, distribution and fulfillment solutions to its investment companies clients that are subject to the filing and reporting requirements of the U.S. Investment Company Act of 1940, as amended (the "Investment Company Act") as well as European and Canadian regulations, primarily mutual fund companies, alternative investment companies, insurance companies and third-party fund administrators. The Company's Arc Suite software platform, which includes ArcDigital, ArcReporting, ArcPro and ArcRegulatory, enables its investment companies clients to comply with applicable ongoing SEC, Canadian and European regulations as well as to create, manage and deliver accurate and timely financial communications to investors and regulators. Investment companies clients leverage the Company's proprietary technology, deep industry expertise and experience to successfully navigate the SEC's specified file formats when submitting compliance documents (including incorporating appropriate XBRL tagging) through the EDGAR system. In 2022, approximately 41% of investment companies net sales related to software solutions, while tech-enabled services and print and distribution solutions accounted for approximately 59% of investment companies net sales, of which approximately 94% were compliance in nature and 6% were transactional in nature. In 2021, approximately 35% of investment companies net sales related to software solutions, while tech-enabled services and print and distribution solutions accounted for approximately 65% of investment companies net sales, of which 93% were compliance in nature and 7% were transactional in nature.

The Company's Arc Suite software platform provides investment companies clients with a comprehensive suite of cloud-based technology services and products that store and manage information in a self-service, central repository allowing regulatory documents to be easily accessed, assembled, edited, translated, rendered and submitted to regulators for compliance purposes. Arc Suite products are cloud-based and include automation and single-source data validation which streamlines processes and drives efficiency for clients. The Company's Total Compliance Management ("TCM") offering allows clients to utilize multiple Arc Suite products to streamline the creation and distribution of materials required by the SEC Rules 30e-3 "Optional Internet Availability of Investment Company Shareholder Reports" and 498A "Updated Disclosure Requirements and Summary Prospectus for Variable Annuity and Variable Life Insurance Contracts."

The Company provides turnkey proxy services, including discovery, planning and implementation, print and mail management, solicitation, tabulation services, stockholder meeting review and expert support for mutual funds, variable annuities, REITs and other alternative investments. Through a strategic relationship, the Company provides a suite of software to brokers and financial advisors that enables them to monitor and view stockholder communications. The Company offers various technology and electronic delivery services and products to make the distribution of documents and content more efficient. The Company also supports the distribution, tabulation and solicitation of stockholders for corporate elections and mutual fund proxy events. The Company's services and sales teams currently support clients in the United States, Canada, Ireland, the United Kingdom, France, Luxembourg, Poland, India and Australia.

Segments

The Company's four operating and reportable segments are: Capital Markets – Software Solutions ("CM-SS"), Capital Markets – Compliance and Communications Management ("CM-CCM"), Investment Companies – Software Solutions ("IC-SS") and Investment Companies – Compliance and Communications Management ("IC-CCM"). *Corporate* is not an operating segment and consists primarily of unallocated selling, general and administrative ("SG&A") activities and associated expenses including, in part, executive, legal, finance and certain facility costs. In addition, certain costs and earnings of employee benefits plans, such as pension and other postretirement benefits plans expense (income) as well as share-based compensation expense, are included in *Corporate* and not allocated to the operating segments. For the Company's financial results and the presentation of certain other financial information by segment, see Note 15, *Segment Information*, to the audited Consolidated Financial Statements.

Capital Markets – Software Solutions—The CM-SS segment provides Venue, ActiveDisclosure, eBrevia and other solutions to public and private companies to help manage public and private transactional and compliance processes; extract data and analyze contracts; collaborate; and tag, validate and file SEC documents.

Capital Markets – Compliance & Communications Management—The CM-CCM segment provides tech-enabled services and print and distribution solutions to public and private companies for deal solutions and SEC compliance requirements. The Company's private conference facilities offer around-the-clock services to support the transaction process, production platform and service delivery model for a fully-virtual experience while replicating the in-person experience. The Company has seen clients utilizing the range of options available to them, including a hybrid approach with working group members working both virtually and in-person during drafting sessions for their transactions. While the Company has significantly reduced its private conferencing footprint, the service helps clients maintain confidentiality in deal negotiations and provides clients a place to host in-person working groups to meet, strategize and prepare documents for the transaction deal stream.

Investment Companies – Software Solutions—The IC-SS segment provides clients with the Arc Suite platform that contains a comprehensive suite of cloud-based solutions, including ArcDigital, ArcReporting, ArcPro and ArcRegulatory as well as services that enable storage and management of compliance and regulatory information in a self-service, central repository so that documents can be easily accessed, assembled, edited, tagged, translated, rendered and submitted to regulators and investors.

Investment Companies – Compliance & Communications Management—The IC-CCM segment provides clients with tech-enabled solutions for creating, filing and distributing regulatory communications and solutions for investor communications, as well as XBRL-formatted filings pursuant to the Investment Company Act, through the SEC EDGAR system. The IC-CCM segment also provides turnkey proxy services, including discovery, planning and implementation, print and mail management, solicitation, tabulation services, stockholder meeting review and expert support.

Services and Products

The Company separately reports its net sales and related cost of sales for its software solutions, tech-enabled services and print and distribution offerings. The Company's software solutions consist of Venue, ActiveDisclosure, eBrevia, Arc Suite, among others. The Company's tech-enabled services offerings consist of document composition, compliance-related SEC EDGAR filing services and transaction solutions. The Company's print and distribution offerings primarily consist of conventional and digital printed products and related shipping.

Company History

On October 1, 2016, DFIN became an independent publicly traded company through the distribution by R.R. Donnelley & Sons Company ("RRD") of shares of DFIN common stock to RRD stockholders (the "Separation"). On October 1, 2016, RRD also completed the separation of LSC Communications, Inc. ("LSC"), its publishing and retail-centric print services and office products business.

In 2018, the Company sold its Language Solutions business and acquired eBrevia Inc. ("eBrevia"), a provider of artificial intelligence-based data extraction and contract analytics software solutions.

On December 13, 2021, the Company completed the acquisition of Guardum, a leading data security and privacy software provider that helps companies locate, secure and control data. The acquisition enhances the Company's Venue offering. By safeguarding privacy and improving data accuracy, Guardum's data security is a competitive differentiator. Prior to the acquisition, the Company held a 33.0% investment in Guardum. The purchase price for the remaining equity of Guardum was \$3.6 million, net of cash acquired of \$0.1 million.

The Company's disposition of the Edgar Online ("EOL") business closed on November 9, 2022, and the Company received net cash proceeds of \$3.3 million.

Markets and Competition

Technological and regulatory changes continue to impact the market for the Company's services and products. In addition to the Company's ongoing innovation in its software solutions, the Company's competitive strengths include its ability to offer a wide array of products for required regulatory communications, compliance services, a global platform, exceptional sales and service and regulatory domain expertise, which provide differentiated solutions for its clients.

The global risk and compliance industry, in general, is highly competitive and barriers to entry have decreased as a result of technology innovation and the simplification of EDGAR filings. Despite some consolidation in recent years, the industry remains highly fragmented in the United States and even more so internationally with many in-country alternative providers. The Company expects competition to increase from existing competitors as well as new and emerging market entrants. In addition, as the Company expands its services and product offerings, it may face competition from new and existing competitors. The Company competes primarily on the depth and breadth of its products, features, benefits, service levels, subject matter regulatory expertise, security, price and reputation.

The impact of digital technologies has impacted many of the products and markets in which the Company competes, most acutely in the Company's mutual fund, variable annuity and public company compliance business offerings. While the Company offers a high-touch, service-oriented experience, technology changes have provided alternatives to the Company's clients that allow them to manage more of the financial disclosure process themselves. The Company has invested in its own software solutions, ActiveDisclosure, Arc Suite and Venue, to serve clients and increase retention, and has invested to expand capabilities and address new market sectors. The future impact of technology as well as the streamlining and modernizing of disclosure requirements on the business is difficult to predict and could result in additional expenditures to restructure impacted operations or develop new technologies. In addition, the Company has made targeted acquisitions and investments in its existing business to offer clients innovative services and solutions that support the Company's position as a technology service leader in this evolving industry.

The Company's competitors for SEC filing services for public company compliance clients include full service financial communications providers, technology point solution providers focused on financial communications and general technology providers. The Company's competitors for Venue include providers of virtual data room-specific solutions and enterprise software providers that offer online products that serve as document repositories, virtual data rooms as well as file sharing and collaboration solutions. The Company's competitors for SEC filing services for investment companies clients include full service traditional providers, small niche technology providers as well as local and regional print providers that bid against the Company for printing, mailing and fulfillment services.

Technology

The Company invests resources in developing software solutions to address customer and market requirements. The Company invests in client facing solutions and its core composition systems and has also adopted market-leading third-party systems which have improved the efficiency of its sales and operations processes. The Company has continued to invest in enhancements of its technology-based offerings including ActiveDisclosure, the Arc Suite software platform, Venue, EDGAR filing and iXBRL services, among others. The Company continues to invest in leading and innovative technology such as cloud-native solutions, composable applications, API management machine learning and hybrid cloud architecture.

Market Volatility/Cyclicality and Seasonality

The Company's Capital Markets segments (CM-SS and CM-CCM), in particular, are subject to market volatility in the United States and world economies, as the success of the transactional and Venue offerings is largely dependent on the global market for IPOs, secondary offerings, M&A, public and private debt offerings, leveraged buyouts, spinouts, SPAC and de-SPAC transactions and other similar transactions. A variety of factors impact the global markets for transactions, including economic activity levels, interest rates, market volatility, the regulatory and political environment, geopolitical and civil unrest and global pandemics, among others. Due to the significant net sales and profitability derived from transactional and Venue offerings, market volatility can lead to uneven financial performance when comparing to previous periods. U.S. IPOs, M&A transactions and public debt offerings were also previously disrupted by U.S. federal government shutdowns, and any future government shutdowns could result in additional volatility. The Company mitigates a portion of this volatility through its compliance offerings, supporting the quarterly and annual public company reporting processes through its filing services and ActiveDisclosure, as well as its Investment Companies segments (IC-SS and IC-CCM) regulatory and stockholder communications offerings, including Arc Suite. The Company also mitigates some of the risk by offering services in higher demand during a down market, such as document management tools for the bankruptcy/restructuring process and by moving upstream in the filing process with products like Venue.

The quarterly/annual public company reporting process work subjects the Company to filing seasonality which peaks shortly after the end of each fiscal quarter. Additionally, investment companies clients require the Company to manage the financial and regulatory reporting and filing for mutual funds on a semi-annual basis as well as annual prospectus filings, which peaks during the second fiscal quarter. The seasonality and associated operational implications include the need to increase staff during peak periods through a combined strategy of hiring temporary personnel, increasing the premium time of existing staff and outsourcing production for a number of services. Additionally, clients and their financial advisors have begun to increasingly rely on web-based services which allow clients to autonomously file and distribute compliance documents with regulatory agencies, such as the SEC. While the Company believes that its ActiveDisclosure and Arc Suite solutions are competitive in this space, competitors are also continuing to develop technologies that aim to improve clients' ability to autonomously produce and file documents to meet their regulatory obligations. The Company remains focused on driving annual recurring revenue to mitigate market volatility.

COVID-19

In December 2019, COVID-19 was identified and subsequently characterized as a pandemic. In response to the COVID-19 pandemic, the Company has taken numerous steps, and will continue to take further actions to ensure the safety of the Company's employees. The Company also incurred and may continue to incur certain expenses related to the COVID-19 pandemic. The Company continues to work closely with its clients to help them access the Company's services and products and continue to meet their regulatory requirements. Although COVID-19 adversely impacted the Company's financial condition, results of operations and overall financial performance in prior periods, the extent of any further impact is currently uncertain and depends on factors including the impact on the Company's customers, employees and vendors.

Government Regulation and Regulatory Impact

The SEC is adopting new as well as amending existing rules and forms to modernize the reporting and disclosure of information under the Securities Act, the Exchange Act and the Investment Company Act. These actions, primarily within the Investment Companies business, are driving significant regulatory changes which impact the Company's customers, and have enabled the Company to accelerate its transition from print and distribution to software solutions.

On June 5, 2018, the SEC adopted Rule 30e-3 which provides certain registered investment companies with an option to electronically deliver stockholder reports and other materials rather than providing such reports in paper. Investors who prefer to receive reports in paper will continue to receive them in that format. While Rule 30e-3 was effective January 1, 2019, default electronic distribution pursuant to the rule began on January 1, 2021 due to a 24-month transition period, during which registered investment companies notified investors of the upcoming change in transmission format of stockholder reports. As a result of Rule 30e-3, the Company experienced a significant decline in the volume of printed annual and semi-annual stockholder reports in 2021 and an increase in revenue from the ArcDigital software solution in 2021. The Company does not anticipate a material impact from Rule 30e-3 in 2023.

On March 11, 2020, the SEC announced that it adopted a new rule 498A under the Securities Act and related regulatory amendments permitting variable annuity and variable life insurance contracts to use a more concise summary prospectus to provide disclosures to investors. More detailed information about the variable annuity or variable life insurance contract will be available online, and an investor must opt in to have that information delivered in paper. The new rule and related form amendments became effective on July 1, 2020 with compliance required by January 1, 2022. As a result of Rule 498A, the Company experienced a significant decline in printed prospectus volume in 2021 and an increase in revenue from the ArcPro and ArcDigital software solutions in 2021. The Company does not anticipate a material impact from Rule 498A in 2023.

On October 26, 2022, the SEC announced that it adopted the Tailored Shareholder Reports (“TSR”) for Mutual Funds and Exchange-Traded Funds rule which requires certain investment companies to complete a new concise and visually engaging annual and semi-annual TSR that highlights key information that is particularly important for retail investors to assess and monitor their investments. The TSR, which can be printed and mailed or delivered electronically upon request of the investor, replace Rule 30e-3 for open-ended funds and ETFs registered under N-1A and will require iXBRL tagging. While the rule was effective January 24, 2023, due to an 18-month transition period, compliance is not required until July 24, 2024. As a result, the Company is expecting an increase in revenue from Arc Suite software and related regulatory filings beginning in 2024.

It is the Company’s policy to conduct its global operations in accordance with all applicable laws, regulations and other requirements. It is not possible to quantify with certainty the potential impact of actions regarding environmental matters, particularly remediation and other compliance efforts that the Company may undertake in the future. However, in the opinion of management, compliance with the present environmental protection laws, before taking into account estimated recoveries from third parties, will not have a material adverse effect on the Company’s consolidated annual results of operations, financial position or cash flows.

Resources

The primary raw materials used in the Company’s printed products are paper and ink. Paper and ink are sourced from a small set of select suppliers to ensure consistent quality and provide for continuity of supply. The global supply chain challenges, because of the COVID-19 pandemic, made it more difficult to source paper in 2021 and 2022. The Company anticipates it will continue to be difficult and potentially more expensive to source paper in 2023. Any increased cost of paper is typically recovered by increased pricing. The Company believes that the risk of incurring material losses as a result of a shortage in raw materials is unlikely as the Company has strategically downsized its print production platform in favor of outsourcing the offset printing to its select network of vendors and reduced its print and distribution revenue such that the losses, if any, would not have a materially negative impact on the Company’s business.

Distribution

The Company’s products are distributed to end-users through the U.S or foreign postal services, through retail channels, electronically or by direct shipment to customer facilities.

Customers

For each of the years ended December 31, 2022, 2021 and 2020, no customer accounted for 10% or more of the Company’s net sales.

Cybersecurity and Data Protection

A core aspect of the Company’s business relies on technology and software; as a result, the security of those technologies and software, as well as the protection of the confidential information entrusted to the Company by its customers, are key components of the Company’s business and strategy. The DFIN Cybersecurity Program is based upon industry leading frameworks, which include International Standardization Organization #27001 (ISO 27001), Control Objectives for Information Technology (COBIT), and the National Institute of Standards and Technology Cybersecurity Framework (commonly known as NIST CSF). The Company’s technologies and software must also comply with domestic and international regulatory and legal requirements. Ensuring that these technologies and software comply with those regulations is a key focus of the Company’s efforts.

The Company leverages cybersecurity technologies designed to ensure security of client, employee and business confidential data. To deliver upon regulatory, client and Company cybersecurity objectives, DFIN developed a Zero Trust strategy wherein all users, systems, applications and networks are deemed untrusted and must be verified. This strategy guides the Company's technology investments, architectures and system operations models.

The Company leverages cybersecurity technologies designed to provide for the security of client, employee and business confidential data. The Company's cybersecurity portfolio is inclusive of, but not limited to, data encryption, data masking, leading secure software development methodologies, application and network penetration testing, incident response, digital forensics, least-privileged access controls, anti-malware, end-point detection and response, virtual private networks and cyber threat intelligence. Additionally, the Company manages a 24x7 Security Operations capability that monitors and responds to cyber threats in real-time.

To demonstrate transparency, the Company's commitment to effective cybersecurity and data protection efforts and in pursuit of continuous improvement, the Company undergoes a series of third-party security reviews, including third-party penetration tests.

Human Capital

The Company's human capital objective is to attract, retain and develop the talent needed to deliver on the Company's strategic priorities. The Company strives to create a culture where employees are empowered to do their best work each day and are rewarded based on their contributions and performance.

As of December 31, 2022, the Company had approximately 2,150 employees, approximately 80% of whom are located in the United States and approximately 20% in international locations. The Company's workforce is approximately 40% female and 60% male, with an average tenure of approximately 12.7 years with the Company (including periods prior to the Separation from RRD). The Company also hires temporary employees in its manufacturing facilities during peak periods of production. None of the Company's employees are represented by a labor union or covered by a collective bargaining agreement. The Company's U.S. employee voluntary turnover rate is less than 8% per year.

In 2022, the Company continued its strategy to provide greater market-driven and predictable pay and benefit programs through the "My Total Wellbeing" program, which was launched in 2021. The components of the program are below:

My Time—The Company announced its move to an unlimited paid time-off philosophy in which U.S. salaried employees can take as much time as needed for vacation or personal issues not covered by other sick or disability policies. New policies providing up to 12 weeks of paid maternity leave were also announced. The Company continued to embrace a flexible model in which employees work remotely (with the exception of essential employees whose roles require them to be on site). Office space is available for team meetings and collaboration, and the Company hosted several in-person events throughout the year so that employees could connect with one another.

My Career—The Company supports employees in growing their skills and making informed choices about their career. The "Career Map," launched in 2021, shows every role in the Company by level and was updated in 2022 with summaries about key positions. The map and career framework are designed to help employees understand how their role fits into the overall structure and the various pathways for advancement.

My Health—The Company offers comprehensive health and benefits including medical insurance, prescription drug benefits, dental insurance and vision insurance. The Company's programs focus on physical as well as mental and emotional health and encourage all employees to take ownership of their wellbeing. Highlights include topical webinars, targeted programs (e.g., tobacco cessation, diabetes management and weight management) and employee assistance programs.

My Money—The Company offers competitive base salaries and compensation programs to reward performance relative to key strategic and financial metrics. The Company also cultivates a "pay for performance" culture in which when the Company does well, it shares those rewards with employees. Based on the Company's strong fiscal year 2021 results, in March 2022, the Company paid performance bonuses to all employees who were not eligible for another variable compensation program and funded a 10% discretionary 401(k) match. In 2022, the Company began a 401(k) match of 50 cents for every dollar an employee contributes up to 6% of eligible compensation (along with the potential of a future discretionary match).

The Company enhanced financially-focused benefits available by improving short-term disability, long-term disability and life insurance programs. Other benefits include the health savings account (which includes a Company contribution), flexible spending accounts and a group legal services plan.

Diversity, Equity & Inclusion (“DEI”)—The Company is committed to increasing gender and racial diversity at all levels through recruiting, training and promotion opportunities. The Company has made progress in bringing more diverse perspectives into leadership. In 2022, approximately 38% of U.S. employees in managerial roles were women and approximately 26% of U.S. employees in managerial roles were people of color. In 2022, women or people of color made up approximately 58% of all U.S. hires and promotions at the manager level and above, an increase of 10% over the last three years. The Company's Board of Directors (the “Board”) reflects both gender and racial/ethnic diversity, constituting 22% each, respectively. The Company has continued to improve over time. The percentage of diverse leaders at the director level and above increased 13% over three years. For the last three years, a portion of executive performance incentive pay has been tied to achieving the Company's DEI objectives.

The Company values the collective approach that results from leveraging diverse perspectives, sharing knowledge and fostering an inclusive environment. In 2021, the Company formed the DEI Council (the “Council”), whose mission is to keep DEI at the forefront of the Company's culture. The Council led a mental wellbeing campaign on World Mental Health Day that raised awareness about the resources available to all employees. In 2022, the Company welcomed its first employee resource group - the Women's Impact Network (“WIN”). WIN sponsors quarterly programs featuring both internal and external speakers and maintains an online forum where women employees network and share information. The launch was a grassroots employee-led effort with executive-level sponsorship.

The Company is committed to paying its employees in a fair and equitable way and has a rigorous internal compensation review process.

Training and Development—The Company invests in its employees’ skills and professional development by offering virtual, social and self-directed learning, mentoring, coaching and career development opportunities. In 2022, approximately 66% of employees engaged in self-directed learning and development activities through the Company's on-demand learning platform. The Company provides its employees with curated and targeted learning pathways for leadership, finance, and technical roles as well as safety, compliance and equipment-related training. The Company continues to focus on leadership development and launched two cohort leadership development programs aligned to the Company's values, leadership behaviors and skills for effective leadership. In partnership with external vendors, the Company provides situational development for senior leaders to support their skills and career growth.

In addition to personal training and development, the Company requires employees to complete a series of mandatory courses in data protection, IT security, principles of ethical business conduct, harassment awareness, anti-corruption/anti-trust and General Data Protection Regulation (“GDPR”). In 2022, the Company achieved more than 99% completion of these required courses.

Employee Experience and Retention—The Company's efforts to engage and retain its employees were recognized in 2022. The Company was ranked #59 on *Newsweek's* list of the 2022 Top 100 Most Loved Workplaces® in America for putting respect, care and appreciation at the center of its business model. Best Practice Institute, a leadership benchmark research company, surveyed employees prior to certifying the Company and found that the Company earned high ratings in the areas of trust, teamwork and competence. Employees cited their strong bond with coworkers, flexible work schedules and strong management and senior leadership among the reasons they loved working for DFIN.

The Company also earned certifications from Great Place to Work® based on a survey measuring employees’ level of trust at work. For the fourth year in a row, the Company was chosen as one of the Best Places to Work by Built In, for going above and beyond in terms of compensation, benefits and cultural programs, nationally and in the largest tech markets. Built In is the online community for startups and tech companies.

Health and Safety—The health, safety and well-being of its employees is the Company’s highest priority and a core element of its culture. The Company believes everyone contributes to a safe and healthy work environment no matter their role in the organization. The Company’s Environmental, Health and Safety Management System aligns with ISO 14001 and 45001. The Company sets annual leading and lagging indicators to improve its sustainability performance and in 2022 achieved a workforce total recordable incident rate of 0.99 (per 200,000 hours worked). Manufacturing employees achieved a 100% completion rate for job-specific safety training and participate in an onsite safety committee that promotes safe practices at work and at home.

For wellness, employees participated in a 28-day activity challenge in June 2022 during Safety Month and collectively achieved 85 million steps. In November 2022, the Company expanded its Safety Pinnacle Awards, which annually recognizes best-in-class contributions of employees who foster a culture of safety, health and well-being in the workplace, to recognize employee contributions in four additional environmental, social and governance (“ESG”) categories: community service, data privacy and security, DEI and the environment. 46 employees were recognized with awards in 2022.

The Company continues to monitor country, state and local guidelines and remains prepared with a company-wide COVID-19 protocol.

Climate

In 2022, the Company purchased renewable energy credits to match 100% of the electricity used by its print manufacturing facilities. The Corporate Responsibility and Governance Committee has broad oversight of environmental, social and governance issues, which includes climate-related risks and opportunities. Due to the nature of the business, DFIN does not anticipate any material direct impacts from climate-related regulations, physical effects of climate change or material expenditures for climate-related projects.

Available Information

The Company maintains a website at www.dfinsolutions.com where the Company’s Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports, as well as other SEC filings, are available without charge, as soon as reasonably practicable following the time they are filed with, or furnished to, the SEC. The Principles of Corporate Governance of the Board, the charters of the Audit, Compensation, Corporate Responsibility & Governance Committees of the Board and the Company’s Principles of Ethical Business Conduct are also available on the Investor Relations portion of the Company’s website, and will be provided, free of charge, to any stockholder who requests a copy. References to the Company’s website address do not constitute incorporation by reference of the information contained on the website, and the information contained on the website is not part of or incorporated by reference in this document.

ITEM 1A. RISK FACTORS

The Company's consolidated results of operations, financial position and cash flows can be adversely affected by various risks. These risks include the principal factors listed below and the other matters set forth in the Annual Report. You should carefully consider all of these risks.

Technology Risks

The Company's failure to maintain the confidentiality, integrity and availability of its systems, software and solutions could seriously damage the Company's reputation and affect its ability to retain clients and attract new business.

Maintaining the confidentiality, integrity and availability of DFIN's systems, software and solutions is an issue of critical importance for the Company and its clients and users who rely on DFIN's systems to prepare regulatory filings and store and exchange large volumes of information, much of which is proprietary, confidential and may constitute material nonpublic information. Given DFIN's systems contain material nonpublic information about public reporting companies and potential M&A activities prior to its public release, the Company has been, and expects it will continue to be, a target of hacking or cybercrime. Inadvertent disclosure of the information maintained on DFIN's systems (or on the systems of the vendors on which the Company relies) due to human error, breach of the systems through hacking, cybercrime or a leak of confidential information due to employee misconduct, could seriously damage the Company's reputation, could cause it to expend significant resources responding to requests from government agencies and customers and could cause significant reputational harm for the Company and its clients. The Company's technologies, systems, networks and software have been and continue to be subject to cybersecurity threats and attacks, which range from uncoordinated individual attempts to sophisticated and targeted measures directed at the Company. The risk of a security breach or disruption, particularly through cyber attack or cyber intrusion, has increased as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased and the Company has in the past and may in the future be subject to security breaches. For example, during 2019 and 2020 the Company experienced two cyber incidents, one of which was through a commercial partner. The incident involving the Company's commercial partner was a result of a compromise to the partner's email server, which allowed unauthorized viewing of client information on that system. The DFIN incident was, the Company believes, the result of a compromised login credential which allowed unauthorized viewing of client information on that system and access to an internal Company system. In each incident, the Company believes the unauthorized viewing of client information was limited to that system and the DFIN incident has been fully remediated with no indication of continuing unauthorized access.

The Company's customers and employees have been, and will continue to be, targeted by parties using fraudulent e-mails and other communications in attempts to misappropriate login credentials, including passwords, or to introduce viruses or other malware programs to its information systems, the information systems of its vendors or third-party service providers and/or its customers' computers. Though the Company endeavors to mitigate these threats through product improvements, use of encryption and authentication technology and customer and employee education, such cyber attacks against the Company or its vendors and third-party service providers remain a serious issue. Further, to access the Company's services and products, the Company's customers use personal electronic devices that are beyond DFIN's security control systems. Techniques used to obtain unauthorized access to, or to sabotage, systems change frequently and generally are not recognized until executed against a target. Consistent with all software solutions, DFIN's software may be vulnerable to these types of attacks. Breaches and other inappropriate access can be difficult to detect and any delay in identifying them could increase their harm. An attack of this type, such as the incident described in the preceding paragraph, could disrupt the proper functioning of the Company's software solutions, cause errors in the output of clients' work, allow unauthorized access to sensitive, proprietary or confidential information and other undesirable or destructive outcomes.

As a result of these types of risks and attacks, the Company has implemented and continuously reviews and updates systems, processes and procedures to protect against unauthorized access to or use of data and to prevent data loss. For example, the Company continues to refresh relevant security standards to reflect changes in current security threats, monitors DFIN systems for cyber threats, continues to update intrusion and detection capabilities and refreshes mandatory information security awareness training content, including awareness around phishing. However, the ever-evolving threats mean the Company and its third-party service providers and vendors must continually evaluate and adapt their respective systems and processes and overall security environment. There is no guarantee that these measures will be adequate to safeguard against all data security breaches, system compromises or misuses of data.

Furthermore, DFIN's systems allow the Company to share information that may be confidential in nature to its clients across the Company's offices worldwide. This design allows the Company to increase global reach for its clients and increase its responsiveness to client demands, but also increases the risk of a security breach or a leak of such information as it allows additional points of access to information by increasing the number of employees and facilities working on certain jobs. In addition, DFIN's systems leverage third party outsourcing arrangements, which expedites the Company's responsiveness but exposes information to additional access points. The occurrence of an actual or perceived information leak or breach of security could cause the Company's reputation to suffer, clients to stop using DFIN's services and products offerings, the Company to have to respond to requests from government agencies and customers in connection with such event and the Company to face lawsuits and potential liability, any of which could cause DFIN's financial performance to be negatively impacted. The Company has incurred, and expects to continue to incur, expenses to prevent, investigate and remediate security breaches and vulnerabilities, including deploying additional personnel and protection technologies, training employees and engaging third-party experts and consultants. Though the Company maintains professional liability insurance that includes coverage if a cybersecurity incident were to occur, there can be no assurance that insurance coverage will be available, responsive, or that the available coverage will be sufficient to cover losses and claims related to any cybersecurity incidents the Company may experience.

A number of core processes, such as software development, sales and marketing, client service and financial transactions, rely on DFIN's IT infrastructure and applications. Defects or malfunctions in the Company's IT infrastructure and applications have caused, and could cause in the future, DFIN's services and products offerings not to perform as clients expect, which could negatively impact the Company's reputation and business. In addition, malicious software, sabotage, ransomware and other cybersecurity breaches of the types described above could cause an outage in DFIN's infrastructure, which could lead to a substantial delay of service and ultimately downtimes, recovery costs and client claims, any of which could negatively impact the Company's results of operations, financial position and cash flows.

The Company's business may be adversely affected by new technologies enabling clients to produce and file documents on their own.

The Company's business may be adversely affected as clients seek out opportunities to produce and file regulatory documentation on their own and begin to implement technologies that assist them in this process. For example, clients and their financial advisors have increasingly relied on web-based services which allow clients to autonomously file and distribute reports required pursuant to the Exchange Act, prospectuses and other materials as a replacement for using the Company's EDGAR filing services. If technologies are further developed to provide clients with the ability to autonomously produce and file documents to meet their regulatory obligations, and the Company does not develop products or provide services to compete with such new technologies, the Company's business may be adversely affected by those clients who choose alternative solutions, including self-serving or filing themselves.

Some of DFIN's systems and services are developed by third parties or supported by third party hardware and software. The Company's business and reputation could suffer if these third party systems and services fail to perform properly or are no longer available to the Company.

Some of DFIN's systems and services are developed by third parties or rely on hardware purchased or leased and software licensed from third parties. These systems and services, or the hardware and software required to run the Company's existing systems and services, may not continue to be available on commercially reasonable terms or at all. Any loss of the right to use any of this hardware or software could result in delays in the provisioning of DFIN's services, which could negatively affect the Company's business until equivalent technology is either developed by the Company or, if available, is identified, obtained and integrated. In addition, it is possible that the Company's hardware vendors or the licensors of third party software could increase their prices, which could have an adverse impact on DFIN's business, operating results and financial condition. Further, changing hardware vendors or software licensors could detract from management's ability to focus on the ongoing operations of the Company's business or could cause delays in the operations of the business.

Additionally, third party software underlying DFIN's services can contain undetected errors or bugs, or be susceptible to cybersecurity breaches described above. The Company may be forced to delay commercial release of its services until any discovered problems are corrected and, in some cases, may need to implement enhancements or modifications to correct errors that the Company does not detect until after deployment of its services.

Undetected errors or failures found in DFIN's services and products may result in loss of or delay in market acceptance of the services and products that could negatively impact its business.

DFIN's services and products may contain undetected errors or scalability limitations during their life cycle, but particularly when first introduced or as new versions are released to the market. The Company releases enhanced versions of products including platforms during various stages of development. Despite production testing by the Company and operational testing by current and potential clients, errors may not be found in new services and products until after commencement of commercial availability or use, resulting in a loss of or a delay in market acceptance, damage to the Company's reputation, client dissatisfaction and decline in net sales and operating income.

If the Company is unable to protect its proprietary technology and other rights, the value of DFIN's business and its competitive position may be impaired.

If the Company is unable to protect its intellectual property, the Company's competitors could use its intellectual property to market services and products similar to DFIN's, which could decrease demand for its services. The Company relies on a combination of patents, trademarks, licensing and other proprietary rights laws, as well as third party nondisclosure agreements and other contractual provisions and technical measures, to protect its intellectual property rights. These protections may not be adequate to prevent competitors from copying or reverse-engineering DFIN's technology and services to create similar offerings. Additionally, any of DFIN's pending or future patent applications may not be issued with the scope of protection the Company seeks, if at all. The scope of patent protection, if any, the Company may obtain is difficult to predict and the patents may be found invalid, unenforceable or of insufficient scope to prevent competitors from offering similar services. DFIN's competitors may independently develop technologies that are substantially equivalent or superior to the Company's technology. To protect DFIN's proprietary information, the Company requires employees, consultants, advisors, independent contractors and collaborators to enter into confidentiality agreements and maintain policies and procedures to limit access to the Company's trade secrets and proprietary information. These agreements and the other actions may not provide meaningful protection for DFIN's proprietary information or know-how from unauthorized use, misappropriation or disclosure. Further, existing patent laws may not provide adequate or meaningful protection in the event competitors independently develop technology, products or services similar to DFIN's. Even if the laws governing intellectual property rights provide protection, the Company may have insufficient resources to take the legal actions necessary to protect its interests. In addition, DFIN's intellectual property rights and interests may not be afforded the same protection under the laws of foreign countries as they are under the laws of the United States.

Business, Economic, Market and Operating Risks

A significant part of the Company's business is derived from the use of DFIN's services and products in connection with financial and strategic business transactions. Trends that affect the volume of these transactions may negatively impact the demand for DFIN's services and products.

A significant portion of the Company's net sales depends on the purchase of DFIN's services and products by parties involved in capital markets compliance and transactions. As a result, a significant portion of the Company's business is dependent on the global market for IPOs, secondary offerings, M&A, public and private debt offerings, leveraged buyouts, spinouts, SPAC and de-SPAC transactions and other similar transactions. These transactions are often tied to market conditions and the resulting volume of these types of transactions affects demand for the Company's services and products. Downturns in the financial markets, global economy or in the economies of the geographies in which the Company does business and reduced equity valuations create risks that could negatively impact the Company's business. For example, in the past, economic volatility has led to a decline in the financial condition of a number of the Company's clients and led to the postponement of their capital markets transactions. To the extent that there is continued volatility, the Company may face increasing volume pressure. Furthermore, the Company's offerings for investment companies clients can be affected by fluctuations in the inflow and outflow of money into investment management funds which determines the number of new funds that are opened and closed. As a result, the Company is unable to predict the impact of any potential worsening of macroeconomic conditions which could have impacts to the Company's results of operations. The level of activity in the financial communications services industry, including the financial transactions and related compliance needs DFIN's services and products are used to support, is sensitive to many factors beyond the Company's control, including interest rates, regulatory policies, general economic conditions, the Company's clients' competitive environments, business trends, terrorism and political change. In addition, a weak economy could hinder the Company's ability to collect amounts owed by clients. Failure of the Company's clients to pay the amounts owed or to pay such amounts in a timely manner, may increase the Company's exposure to credit risks and result in bad debt write-offs. Unfavorable conditions or changes in any of these factors could negatively impact the Company's business, results of operations, financial position and cash flows.

The highly competitive market for DFIN's services and products and industry fragmentation may continue to create adverse price pressures.

The financial communications services industry is highly competitive with relatively low barriers to entry and the industry remains highly fragmented in North America and internationally. Management expects that competition will increase from existing competitors, as well as new and emerging entrants. Additionally, as the Company expands its services and products offerings, it may face competition from new and existing competitors. As a result, competition may lead to additional pricing pressure on DFIN's services and products, which could negatively impact its business, results of operations, financial position and cash flows.

The quality of the Company's customer support and services offerings is important to the Company's clients, and if the Company fails to offer high quality customer support and services, clients may not use DFIN's solutions resulting in a potential decline in net sales.

A high level of customer support is critical for the successful marketing and sale of DFIN's solutions. If the Company is unable to provide a level of customer support and service to meet or exceed clients' expectations, the Company could experience a loss of clients and market share, a failure to attract new clients, including in new geographic regions, and increased service and support costs and a diversion of resources. Any of these results could negatively impact the Company's business, results of operations, financial position and cash flows.

A substantial part of the Company's business depends on clients continuing their use of DFIN's services and products. Any decline in the Company's client retention would harm the Company's future operating results.

The Company does not have long-term contracts with most of capital markets and some investment companies clients and, therefore, relies on their continued use of DFIN's services and products, particularly for IC-CCM and CM-CCM-related services. As a result, client retention, particularly during periods of declining transactional volume, is an important part of the Company's strategic business plan. There can be no assurance that clients will continue to use DFIN's services and products to meet their ongoing needs, particularly in the face of competitors' services and products offerings. Client retention rates may decline due to a variety of factors, including:

- the Company's inability to demonstrate to clients the value of its solutions;
- the price, performance and functionality of DFIN's solutions;
- the availability, price, performance and functionality of competing services and products;
- clients ceasing to use or anticipating a declining need for the Company's services in their operations;
- consolidation in the Company's client base;
- the effects of economic downturns and global economic conditions;
- technology and application failures and outages, interruption of service, security breaches or fraud, which could adversely affect the Company's reputation and the Company's relations with its clients; or
- reductions in clients' spending levels.

If the Company's retention rates are lower than anticipated or decline for any reason, the Company's net sales may decrease and the Company's profitability may be harmed, which could negatively impact the Company's business, results of operations, financial position and cash flows.

The Company's performance and growth partially depend on its ability to generate client referrals and to develop referenceable client relationships that will enhance the Company's sales and marketing efforts.

The Company depends on users of its solutions to generate client referrals for the Company's services. The Company depends, in part, on the financial institutions, law firms and other third parties who use DFIN's services and products to recommend solutions to their client base, which provides the Company the opportunity to reach a larger client base than it can reach through the direct sales and internal marketing efforts. For instance, a portion of the Company's net sales from capital markets clients is generated through referrals by investment banks, financial advisors and law firms that have utilized the Company's services in connection with prior transactions. These referrals are an important source of new clients for the Company's services.

A decline in the number of referrals could require the Company to devote substantially more resources to the sales and marketing of its services, which would increase costs, potentially lead to a decline in net sales, slow the Company's growth and negatively impact its business, results of operations, financial position and cash flows.

A failure to adapt to technological changes to address the changing demands of clients may adversely impact the Company's business, and if the Company fails to successfully develop, introduce or integrate new services or enhancements to its services and products platforms, systems or applications, DFIN's reputation, net sales and operating income may suffer.

In May 2018, management introduced the Company's new business plan that focuses on transitioning its business to a software and technology focused company. In order to do that, the Company must attract new clients for those businesses, and its ability to attract new clients and increase sales to existing clients depends in large part on the Company's ability to enhance and improve existing services and products platforms, including application solutions, and to introduce new functionality either by acquisition or internal development. As further described in Item 1. *Business—Company History*, in 2018, the Company sold its Language Solutions business and acquired eBrevia. In December 2021, the Company completed an acquisition of Guardum in order to enhance Venue product features, and in November 2022, the Company sold its EOL business. As a percentage of total net sales, the Company's software solutions net sales increased from 18% in 2018 to 33% in 2022, while the Company's tech-enabled services net sales were flat at 46% in 2018 and 2022 and print and distribution net sales declined from 36% in 2018 to 21% in 2022. In 2020, the Company undertook significant restructuring of its compliance and communications management operating segments due partially to regulatory changes that significantly reduced print volumes starting in 2021. In 2022, the Company completed the consolidation of its print platform, which enabled DFIN to achieve meaningful cost savings as well as reduced the number of owned and leased global facilities from 50 as of December 31, 2020 to 28 as of December 31, 2022. The Company continues to invest a significant portion of its capital expenditures budget on software development, including the development of software solutions for both investment companies and capital markets, most recently with the launch of new cloud-based ActiveDisclosure in early 2021. The Company's operating results would suffer if its innovations are not responsive to the needs of the Company's clients, are not appropriately timed with market opportunities or are not brought to market effectively. In addition, it is possible that management's assumptions about the features that they believe will drive purchasing decisions for the Company's potential clients or renewal decisions for the existing clients could be inaccurate. There can be no assurance that new products or services, or upgrades to DFIN's products or services, will be released as anticipated or that, when released, they will not contain defects. If product defects arise, the Company could experience negative publicity, damage to its reputation, decline in net sales, delay in market acceptance or claims by clients brought against the Company. Moreover, upgrades and enhancements to the Company's platforms may require substantial capital investment without assurance that the upgrades and enhancements will enable the Company to achieve or sustain a competitive advantage in the services and products offerings. If the Company is unable to license or acquire new technology solutions to enhance existing services and products offerings, the results of operations, financial position and cash flows may be negatively impacted.

Fluctuations in the costs and availability of paper and other raw materials may adversely impact the Company.

Global supply chain challenges leading to decreased availability of paper and other raw materials and the costs of these resources due to sourcing difficulties or otherwise have increased and are expected to continue to increase DFIN's costs. The Company may not be able to pass these costs on to clients through higher prices. Moreover, rising raw materials costs, and any consequent impact on pricing, could lead to a decrease in demand for DFIN's services and products.

DFIN's business is dependent upon brand recognition and reputation, and the failure to maintain or enhance the Company's brand or reputation would likely have an adverse effect on its business.

DFIN's brand recognition and reputation are important aspects of the Company's business. Maintaining and further enhancing DFIN's brands and reputation will be important to retaining and attracting clients for DFIN's products. The Company also believes that the importance of DFIN's brand recognition and reputation for products will continue to increase as competition in the market for DFIN's products and industry continues to increase. The Company's success in this area will be dependent on a wide range of factors, some of which are beyond the Company's control, including the efficacy of the Company's marketing efforts, its ability to retain existing and obtain new clients and strategic partners, human error, the quality and perceived value of DFIN's services and products offerings, actions of the Company's competitors and positive or negative publicity. Damage to the Company's reputation and loss of brand equity may reduce demand for DFIN's services and products offerings and negatively impact its business, results of operations, financial position and cash flows.

The Company may be unable to hire and retain talented employees, including management.

DFIN's success depends, in part, on its general ability to attract, develop, motivate and retain highly skilled employees. The loss of a significant number of employees or the inability to attract, hire, develop, train and retain additional skilled personnel could have a serious negative effect on DFIN's business. Management believes the Company's ability to retain its client base and to attract new clients is directly related to DFIN's sales force and client service personnel, and if the Company cannot retain these key employees, its business could suffer. In addition, many members of DFIN's management have significant industry experience that is valuable to competitors. The Company expects that its executive officers will have non-solicitation agreements contractually prohibiting them from soliciting clients and employees within a specified period of time after they leave DFIN. If one or more members of the senior management team leave and cannot be replaced with a suitable candidate quickly, the Company could experience difficulty in managing its business properly, which could negatively impact its business, results of operations, financial position and cash flows.

There are risks associated with operations outside the United States.

The Company has operations outside the United States. DFIN works with capital markets clients around the world, and in 2022 the Company's international sales accounted for approximately 14% of DFIN's net sales. The Company's operations outside of the United States are primarily focused in Europe, Asia and Canada. As a result, the Company is subject to the risks inherent in conducting business outside the United States, including:

- costs of customizing services and products for foreign countries;
- difficulties in managing and staffing international operations;
- increased infrastructure costs including legal, tax, accounting and information technology;
- reduced protection for intellectual property rights in some countries;
- potentially greater difficulties in collecting accounts receivable, including currency conversion and cash repatriation from foreign jurisdictions;
- increased licenses, tariffs and other trade barriers;
- potentially adverse tax consequences;
- increased burdens of complying with a wide variety of foreign laws, including employment-related laws, which may be more stringent than U.S. laws;
- unexpected changes in regulatory requirements;
- political and economic instability; and
- compliance with applicable anti-corruption and sanction laws and regulations.

The Company cannot be sure that its investments or operations in other countries will produce desired levels of net sales or that one or more of the factors listed above will not affect the Company's global business.

The Company's reliance on strategic relationships as part of its business strategy may adversely affect the development of DFIN's business in those areas.

The Company's business strategy includes pursuing and maintaining strategic relationships in order to provide seamless end-to-end solutions to its clients as well as to facilitate its entry into adjacent lines of business. This approach may expose the Company to risk of conflict with its strategic arrangement partners and divert management resources to oversee these arrangements. Further, as these arrangements require cooperation with third parties, DFIN may not be able to make decisions as quickly as it would have if it was operating on its own or may take actions that are different from what the Company would do on a standalone basis in light of the need to consider interests of all parties involved. As a result, the Company may be less able to respond timely to changes in market dynamics, which could have a material adverse effect on its business, results of operations, financial position and cash flows.

The Company has in the past acquired and may in the future acquire other businesses, and it may be unable to successfully integrate the operations of these businesses and may not achieve the cost savings and increased net sales anticipated as a result of these acquisitions.

Achieving the anticipated benefits of acquisitions will depend in part upon DFIN's ability to integrate these businesses in an efficient and effective manner. The integration of companies that have previously operated independently may result in significant challenges, and the Company may be unable to accomplish the integration smoothly or successfully. In particular, the coordination of geographically dispersed organizations with differences in corporate cultures and management philosophies may increase the difficulties of integration. The integration of acquired businesses may also require the dedication of significant management resources, which may temporarily distract management's attention from the day-to-day operations of the Company. In addition, the process of integrating operations may cause an interruption of, or loss of momentum in, the activities of one or more of the Company's businesses and the loss of key personnel from the Company or the acquired businesses. Further, employee uncertainty and lack of focus during the integration process may disrupt the businesses of the Company or the acquired businesses.

Financial Risks

The Company's indebtedness may adversely affect the Company's business and results of operations, financial position and cash flows.

As of December 31, 2022, the Company had \$125.0 million outstanding under its Term Loan A Facility, as defined below, and \$45.0 million outstanding under its Revolving Facility, as defined below. The Company's ability to make payments on and to refinance indebtedness, as well as any future debt that it may incur, will depend on the Company's ability to generate cash in the future from operations, financings or asset sales. The Company's ability to generate cash is subject to general economic, financial, competitive, legislative, regulatory and other factors that are beyond the Company's control. The Company may not generate sufficient funds to service its debt and meet its business needs, such as funding working capital or the expansion of the Company's operations. If the Company is not able to repay or refinance debt as it becomes due, it may be forced to take disadvantageous actions, including facility closure, staff reductions, reducing financing in the future for working capital, capital expenditures and general corporate purposes, selling assets or dedicating an unsustainable level of cash flows from operations to the payment of principal and interest on its indebtedness, and restricting future capital return to stockholders. The lenders who hold the Company's debt could also accelerate amounts due in the event of a default, which could potentially trigger a default or acceleration of the maturity of the Company's debt.

In addition, the Company's competitors who may be less leveraged, could put the Company at a competitive disadvantage. These competitors could have greater financial flexibility to pursue strategic acquisitions, secure additional financing and may better withstand downturns in the Company's industry or the economy in general.

The agreements and instruments that govern the Company's debt impose restrictions that may limit the Company's operating and financial flexibility.

On May 27, 2021, the Company amended and restated its credit agreement dated as of September 30, 2016 (as in effect prior to such amendment and restatement, the "Credit Agreement," and the Credit Agreement, as so amended and restated, the "Amended and Restated Credit Agreement"), by and among the Company, the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, to, among other things, provide for a \$200.0 million delayed-draw term loan A facility (the "Term Loan A Facility"), extend the maturity of the \$300.0 million revolving facility (the "Revolving Facility," and, together with the Term Loan A Facility, the "Credit Facilities") to May 27, 2026 and modify the financial maintenance and negative covenants in the Credit Agreement. On October 14, 2021, the Company drew \$200.0 million from the Term Loan A Facility and used the proceeds to redeem the Company's senior notes due October 15, 2024 (the "Notes"). The Amended and Restated Credit Agreement that governs the Company's Credit Facilities contain a number of significant restrictions and covenants that limit the Company's ability to:

- incur additional debt;
- pay dividends, make other distributions or repurchase or redeem capital stock;
- prepay, redeem or repurchase certain debt;
- make loans and investments;
- sell, transfer or otherwise dispose of assets;

- incur or permit to exist certain liens;
- enter into certain types of transactions with affiliates;
- enter into agreements restricting the Company's subsidiaries' ability to pay dividends; and
- consolidate, merge or sell all or substantially all of the Company's assets.

These covenants can have the effect of limiting the Company's flexibility in planning for or reacting to changes in the Company's business and the markets in which it competes. In addition, the Amended and Restated Credit Agreement that governs the Credit Facilities requires the Company to comply with certain financial maintenance covenants. Operating results below current levels or other adverse factors, including a significant increase in interest rates, could result in the Company being unable to comply with the financial covenants contained in the Term Loan A Facility. If the Company violates covenants under the Credit Facilities and is unable to obtain a waiver from the lenders, the Company's debt under the Credit Facilities would be in default and could be accelerated by the Company's lenders.

If the Company's debt is accelerated, the Company may not be able to repay its debt or borrow sufficient funds to refinance it. Even if the Company is able to obtain new financing, it may not be on commercially reasonable terms, on terms that are acceptable, or at all. If the Company's debt is in default for any reason, the Company's business and results of operations, financial position and cash flows could be materially and adversely affected. In addition, complying with these covenants may also cause the Company to take actions that may make it more difficult for the Company to successfully execute its business strategy and compete against companies that are not subject to such restrictions.

The Company may be able to incur significantly more debt.

The Company may be able to incur significant additional debt, including secured debt, in the future. Although the Amended and Restated Credit Agreement governing the Credit Facilities restrict the incurrence of additional debt, these restrictions are subject to a number of qualifications and exceptions. Also, these restrictions do not prevent the Company from incurring obligations that do not constitute indebtedness. As of December 31, 2022, the Company had the remaining \$255.0 million available for additional borrowing under the Revolving Facility. The more indebtedness the Company incurs, the further exposed it becomes to the risks associated with leverage described above.

Adverse credit market conditions may limit the Company's ability to obtain future financing.

The Company may, from time to time, depend on access to credit markets. Uncertainty and volatility in global financial markets may cause financial markets institutions to fail or may cause lenders to hoard capital and reduce lending. As a result, DFIN may not obtain financing on terms and conditions that are favorable, or at all.

The Company is exposed to risks related to potential adverse changes in currency exchange rates.

The Company is exposed to market risks resulting from changes in the currency exchange rates of the currencies in the countries in which it does business. Although operating in local currencies may limit the impact of currency rate fluctuations on the operating results of non-U.S. activities, fluctuations in such rates may affect the translation of these results into DFIN's financial statements. To the extent borrowings, sales, purchases, net sales and expenses or other transactions are not in the applicable local currency, the Company may enter into foreign currency spot and forward contracts to hedge the currency risk. Management cannot be sure, however, that its efforts at hedging will be successful, and such efforts could, in certain circumstances, lead to losses.

Legal and Regulatory Risks

Modifications in the rules and regulations to which clients or potential clients are subject to may impact the demand for the Company's services and products offerings.

Clients are subject to rules and regulations requiring certain printed or electronic communications governing the form, content and delivery methods of such communications, such as SEC Rule 30e-3 which provides certain registered investment companies with an option to electronically deliver stockholder reports and other materials rather than providing such reports in paper. Modifications in these regulations may impact clients' business practices and could reduce demand for DFIN's services and products offerings. Modifications in such regulations could eliminate the need for certain types of communications altogether or impact the quantity or format of required communications.

Increasing regulatory focus on privacy issues and expanding laws could impact DFIN's software solutions and expose the Company to increased liability.

Privacy and data security laws apply to DFIN's various businesses in all jurisdictions in which the Company operates. In particular, clients use DFIN's software solutions, including Venue, to share personal data and information on a confidential basis, and such sharing may be subject to privacy and data security laws. DFIN's global business operates in countries that have more stringent data protection laws than those in the United States. These data protection laws may be inconsistent across jurisdictions and are subject to evolving and differing interpretations. Complying with these regulations has been, and will continue to be, costly, and there are or will be significant penalties for failure to comply with these regulations. Further, any perception of DFIN's practices, products or services as a violation of individual privacy rights may subject the Company to public criticism, class action lawsuits, reputational harm, or investigations or claims by regulators, industry groups or other third parties, all of which could disrupt DFIN's business and expose the Company to liability.

Transferring personal data and information across international borders is becoming increasingly complex. For example, Europe has stringent regulations regarding transfer of personal data and information. The mechanisms that DFIN and many other companies rely upon for data transfers from Europe to the United States (e.g., Standard Contractual Clauses) have been successfully challenged in the European court systems and compliance with legislation related to data transfers is uncertain. The Company is closely monitoring developments related to requirements for transferring personal data and information. Privacy regulation continues to develop globally and could impact DFIN's business, results of operations, financial position and cash flows.

Benefit, Pension and Other Postretirement Benefits Plans Risk

Changes in market conditions, changes in discount rates, or lower returns on assets may increase required pension and other postretirement benefits plans contributions in future periods.

The funded status of DFIN's pension and other postretirement benefits plans is dependent upon many factors, including returns on invested assets and the level of certain interest rates. Declines in the market value of the securities held by the plans coupled with historically low interest rates have substantially reduced, and in the future could further reduce, the funded status of the plans. These reductions may increase the level of expected required pension and other postretirement benefit plan contributions in future years. Various conditions may lead to changes in the discount rates used to value the year-end benefit obligations of the plans, which could partially mitigate, or worsen, the effects of lower asset returns. If adverse conditions were to continue for an extended period of time, the Company's costs and required cash contributions associated with pension and other postretirement benefits plans may substantially increase in future periods.

The Company may become liable for funding obligations arising from multi-employer pension plan obligations of the Company's former affiliates.

On April 13, 2020, LSC announced that it, along with most of its U.S. subsidiaries, voluntarily filed for business reorganization under Chapter 11 of the U.S. Bankruptcy Code. LSC and the Company separated from RRD in a tax-free distribution to stockholders of RRD effective October 1, 2016. In the second quarter of 2020, the Company became aware that, subsequent to the LSC Chapter 11 Filing, LSC failed to make certain required monthly and quarterly withdrawal liability payments to multiemployer pension plans from which RRD had withdrawn prior to the Separation. Responsibility for certain pre-Separation withdrawal liability obligations, resulting in such monthly and quarterly payment obligations (the "LSC MEPP Liabilities"), had been assigned to LSC pursuant to the Separation Agreement, while RRD retained responsibility for certain other pre-Separation withdrawal liability assessments against RRD. However, the Company and RRD remain jointly and severally liable for the LSC MEPP Liabilities pursuant to laws and regulations governing multiemployer pension plans, and the Company remains jointly and severally liable for certain additional RRD MEPP liabilities. In 2020 and 2021, RRD and the Company made payments to settle certain obligations related to these funds. In November 2021, arbitration proceedings were completed and the final allocation of the LSC MEPP Liabilities of one-third to the Company and two-thirds to RRD was determined by the arbitration panel. If RRD fails to make required payments in respect of the remaining LSC MEPP Liabilities or RRD fails to make required payments in respect of the RRD MEPP liabilities, the Company may become obligated to make such payments, which payment obligations may negatively impact the Company's cash flows and results of operations. In addition, the Company's MEPP liabilities could also be affected by the financial stability of other employers participating in such plans and decisions by those employers to withdraw from such plans in the future.

The trend of increasing costs to provide health care and other benefits to employees and retirees may continue.

DFIN provides health care and other benefits to both employees and retirees. For many years, costs for health care have increased more rapidly than general inflation in the U.S. economy. If this trend in health care costs continues, the cost to provide such benefits could increase, adversely impacting profitability. Changes to health care regulations in the U.S. and internationally may also increase cost of providing such benefits.

COVID-19 Pandemic Risk

The current COVID-19 pandemic and other global public health epidemics may materially adversely impact the Company's business, its future results of operations and its overall financial performance.

The Company's business could be materially adversely affected by the risk, or the public perception of risk, related to a pandemic or widespread health crisis, such as the current COVID-19 pandemic. A significant outbreak of epidemic, pandemic, or contagious diseases in the human population resulting in a widespread health crisis that adversely affect the broader economies and financial markets will also adversely impact the overall demand environment for DFIN's services and products. The COVID-19 pandemic has had and may continue to have a material adverse impact on certain of the Company's customers' financial results, which has and may continue to force those clients to alter their plans for purchasing the Company's services and products. In addition, the global markets were disrupted due to the COVID-19 pandemic, which had a temporary negative impact on the Company's transactional offerings. A resurgence of the COVID-19 pandemic, including potentially new strains of COVID-19, resulting in renewal of mitigation measures, including targeted shutdowns, could lead to further economic downturns and adverse effects on the Company. A recession would adversely impact the global market for IPOs and other financial transactions, adversely affecting the demand for DFIN's services and products (see the Company's risk factor captioned "A significant part of the Company's business is derived from the use of DFIN's services and products in connection with financial and strategic business transactions. Trends that affect the volume of these transactions may negatively impact the demand for DFIN's services and products."), and those adverse effects may be material.

In addition, any preventative or protective actions that governments implement or that the Company takes in respect of a global health crises such as COVID-19, such as travel or movement restrictions, quarantines or site closures, may interfere with the ability of the Company's employees and vendors to perform their respective responsibilities and obligations relative to the conduct of DFIN's business. Such results could have a material adverse effect on DFIN's operations, business, financial condition, results of operations, or cash flows. For example, when both the State of New Jersey and the Commonwealth of Pennsylvania enacted stay at home orders in 2020, the Company was deemed essential and continued to operate, but there can be no assurances that the operations will continue to be deemed essential both in those locations and in other jurisdictions in which the Company or its vendors operate and are allowed to remain operational. In addition, the Company uses vendors in multiple countries to fulfill the global demand for its services. When global lockdowns were ordered by many governments in March 2020, many of the Company's vendors had to rapidly transition to work from home, creating process inefficiencies. If the Company is not able to meet its client's work requirements in a timely fashion or at all, the Company's business, reputation and ability to retain clients would be adversely affected.

The Company is unable to accurately predict the ultimate impact of the current COVID-19 pandemic due to various uncertainties, including the ultimate geographic spread of the virus, the severity of the virus, the presence of new strains of the virus, the duration of the outbreak, actions that may be taken by governmental authorities to contain the virus and any economic recession resulting from the pandemic. The Company closely monitors the impact of the COVID-19 pandemic, continually assessing its potential effects on its business. The extent to which the Company's results are affected by COVID-19 will largely depend on future developments which cannot be accurately predicted and are uncertain, but the COVID-19 pandemic or the perception of its effects could have a material adverse effect on DFIN's business, financial condition, results of operations, or cash flows. Refer to Part II, Item 7. *Management's Discussion and Analysis of Financial Conditions and Results of Operations—COVID-19* of this Annual Report for additional information.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

The Company's corporate office is located in leased office space at 35 West Wacker Drive, Chicago, Illinois, 60601. As of December 31, 2022, the Company leased or owned 16 U.S. facilities, some of which had multiple buildings and warehouses, and these U.S. facilities encompassed approximately 0.5 million square feet. The Company leased 12 international facilities, some of which had multiple buildings and warehouses, encompassing less than 0.1 million square feet in Asia, Europe and Canada. Of the Company's worldwide facilities, approximately 0.2 million square feet of space was owned, while the remaining 0.4 million square feet of space was leased. As further described in Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*, to the audited Consolidated Financial Statements, as of December 31, 2022, the Company had land held for sale which encompassed approximately 3.3 acres.

ITEM 3. LEGAL PROCEEDINGS

For a discussion of certain litigation involving the Company, see Note 8, *Commitments and Contingencies*, to the audited Consolidated Financial Statements.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR DONNELLEY FINANCIAL SOLUTIONS, INC.'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Principal Market

DFIN's common stock began "regular-way" trading under the ticker symbol "DFIN" on the New York Stock Exchange ("NYSE") on October 3, 2016.

Stockholders

As of February 14, 2023, there were 3,345 stockholders of record of the Company's common stock.

Issuer Purchases of Equity Securities

Period	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Dollar Value of Shares that May Yet be Purchased Under the Plans or Programs (a)
October 1, 2022 - October 31, 2022	180,061	\$ 38.41	180,061	\$ 131,025,550
November 1, 2022 - November 30, 2022	128,526	35.61	124,612	126,593,507
December 1, 2022 - December 31, 2022 ^(b)	61,524	37.41	61,524	124,292,140
Total	370,111	\$ 37.27	366,197	

(a) As further described in Note 13, *Capital Stock*, to the audited Consolidated Financial Statements, on February 17, 2022, the Board authorized an increase to its previously approved stock repurchase program to bring the total remaining available repurchase authorization for shares on or after February 17, 2022 to \$150 million and extended the expiration date of the repurchase program through December 31, 2023. On August 17, 2022, the Board authorized an increase to the stock repurchase program approved in February 2022 to bring the total remaining available repurchase authorization for shares on or after August 17, 2022 to \$150 million. The expiration date of the repurchase program remains through December 31, 2023. The stock repurchase program may be suspended or discontinued at any time. The timing and amount of any shares repurchased are determined by the Company based on its evaluation of market conditions and other factors and may be completed from time to time in one or more transactions on the open market or in privately negotiated purchases in accordance with all applicable securities laws and regulations and all repurchases in the open market will be made in compliance with Rule 10b-18 under the Exchange Act. Repurchases may also be made under a Rule 10b5-1 plan, which would permit shares to be repurchased when the Company might otherwise be precluded from doing so.

(b) Includes 4,000 shares, valued at \$0.2 million, for which the Company placed orders prior to December 31, 2022 that were not settled until the first quarter of 2023.

Equity Compensation Plans

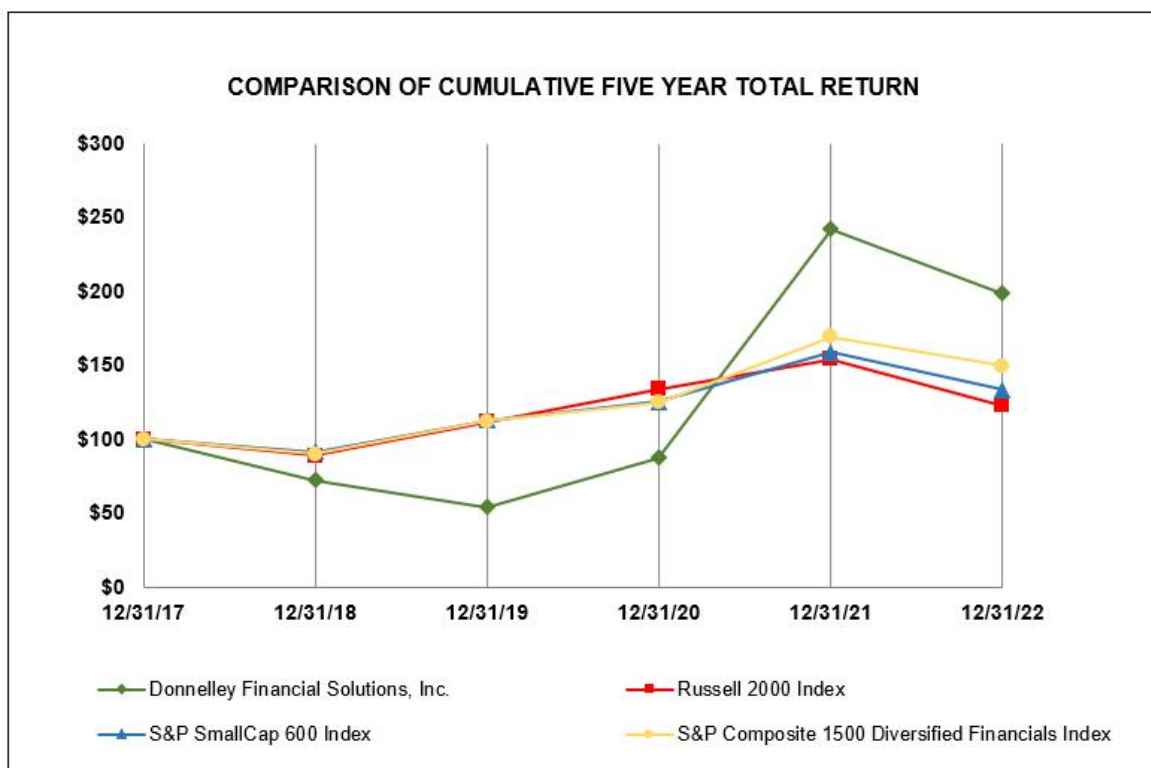
For information regarding equity compensation plans, see Part III, Item 12. *Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters* of this Annual Report.

PEER PERFORMANCE TABLE

The following graph compares the cumulative total stockholder return on DFIN's common stock from December 31, 2017 through December 31, 2022, with (i) the cumulative total return of the Russell 2000 Index, (ii) the cumulative return of the Standard & Poor's ("S&P") SmallCap 600 Index, and (iii) S&P Composite 1500 Diversified Financials Index, a business industry index of which DFIN is a constituent.

The comparison assumes all dividends have been reinvested and an initial investment of \$100 on December 31, 2017. The stock price performance on the following graph is not necessarily indicative of future stock price performance.

Performance Table



Company Name/Index	Base Period 12/31/2017	December 31, 2018	December 31, 2019	December 31, 2020	December 31, 2021	December 31, 2022
Donnelley Financial Solutions	100	71.99	53.72	87.07	241.87	198.31
Russell 2000 Index	100	88.99	111.70	134.00	153.85	122.41
S&P SmallCap 600 Index	100	91.52	112.37	125.05	158.59	133.06
S&P Composite 1500 Diversified Financials Index	100	89.76	111.82	124.58	168.96	149.27

This performance graph and other information furnished under Part II, Item 5. *Market for Donnelley Financial Solutions, Inc.'s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities* of this Annual Report shall not be deemed to be "soliciting material" or to be "filed" with the SEC or subject to Regulation 14A or 14C, or to the liabilities of Section 18 of the Exchange Act.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") should be read together with the Company's audited Consolidated Financial Statements and the notes thereto, as well as Part I, Item 1. Business of this Annual Report.

MD&A contains a number of forward-looking statements, all of which are based on the Company's current expectations and could be affected by the risks and uncertainties, as well as other factors, described throughout this Annual Report, particularly in "Special Note Regarding Forward-Looking Statements" and Part I, Item 1A. Risk Factors.

Business

For a description of the Company's business and services and products offerings, refer to Part I, Item 1. *Business* of this Annual Report.

The Company separately reports its net sales and related cost of sales for its software solutions, tech-enabled services and print and distribution offerings. The Company's software solutions consist of Venue, ActiveDisclosure, eBrevia and Arc Suite, among others. The Company's tech-enabled services offerings consist of document composition, compliance-related SEC EDGAR filing services and transaction solutions. The Company's print and distribution offerings primarily consist of conventional and digital printed products and related shipping.

Segments

The Company operates its business through four operating and reportable segments: Capital Markets – Software Solutions, Capital Markets – Compliance and Communications Management, Investment Companies – Software Solutions and Investment Companies – Compliance and Communications Management. *Corporate* is not an operating segment and consists primarily of unallocated SG&A activities and associated expenses including, in part, executive, legal, finance and certain facility costs. In addition, certain costs and earnings of employee benefits plans, such as pension and other postretirement benefits plans expense (income) as well as share-based compensation expense, are included in Corporate and not allocated to the operating segments. For a description of the Company's operating segments, refer to Part I, Item 1. *Business* of this Annual Report.

Executive Overview

Net sales for the year ended December 31, 2022 decreased by \$159.7 million, or 16.1%, to \$833.6 million from \$993.3 million for the year ended December 31, 2021, including a \$6.3 million, or 0.6%, decrease due to changes in foreign currency exchange rates. Net sales decreased primarily due to lower capital markets transactional volumes and lower print volumes as a result of SEC Rules 30e-3 and 498A, which reduced print requirements, partially offset by higher capital markets compliance volumes, higher software solutions volumes in Arc Suite and higher ActiveDisclosure pricing and volumes.

Income from operations for the year ended December 31, 2022 decreased by \$74.3 million, or 33.9%, to \$145.0 million from \$219.3 million for the year ended December 31, 2021. Income from operations decreased primarily due to lower capital markets transactional volumes, higher depreciation and amortization expense and higher bad debt and marketing expenses, partially offset by lower incentive compensation expense, lower selling expense as a result of the decrease in sales volumes, lower restructuring, impairment, and other charges, net and a \$5.4 million decrease in expense related to the LSC multiemployer pension plans obligation.

Financial Review

In the financial review that follows, the Company discusses its consolidated results of operations, financial condition, cash flows and certain other information. This discussion and analysis should be read in conjunction with the Company's audited Consolidated Financial Statements and related notes thereto.

A discussion of the Company's financial condition, changes in financial condition and results of operations for the year ended December 31, 2021 as compared to the year ended December 31, 2020, can be found in Part II, Item 7. *Management's Discussion and Analysis of Financial Condition and Results of Operations* of DFIN's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the SEC on February 22, 2022.

Results of Operations for the Year Ended December 31, 2022 as Compared to the Year Ended December 31, 2021

The following table shows the results of operations for the years ended December 31, 2022 and 2021:

	Year Ended December 31,			
	2022	2021	\$ Change	% Change
	(in millions, except percentages)			
Net sales				
Tech-enabled services	\$ 380.9	\$ 519.5	\$ (138.6)	(26.7 %)
Software solutions	279.6	270.0	9.6	3.6 %
Print and distribution	173.1	203.8	(30.7)	(15.1 %)
Total net sales	833.6	993.3	(159.7)	(16.1 %)
Cost of sales ^(a)				
Tech-enabled services	141.1	162.3	(21.2)	(13.1 %)
Software solutions	113.4	105.3	8.1	7.7 %
Print and distribution	115.7	145.5	(29.8)	(20.5 %)
Total cost of sales	370.2	413.1	(42.9)	(10.4 %)
Selling, general and administrative expenses ^(a)	264.0	307.7	(43.7)	(14.2 %)
Depreciation and amortization	46.3	40.3	6.0	14.9 %
Restructuring, impairment and other charges, net	7.7	13.6	(5.9)	(43.4 %)
Other operating loss (income), net	0.4	(0.7)	1.1	nm
Income from operations	145.0	219.3	(74.3)	(33.9 %)
Interest expense, net	9.2	26.6	(17.4)	(65.4 %)
Investment and other income, net	(3.5)	(5.1)	1.6	(31.4 %)
Earnings before income taxes	139.3	197.8	(58.5)	(29.6 %)
Income tax expense	36.8	51.9	(15.1)	(29.1 %)
Net earnings	\$ 102.5	\$ 145.9	\$ (43.4)	(29.7 %)

nm – Not meaningful

(a) Exclusive of depreciation and amortization

Consolidated

Net sales of tech-enabled services of \$380.9 million for the year ended December 31, 2022 decreased \$138.6 million, or 26.7%, as compared to the year ended December 31, 2021. Net sales of tech-enabled services decreased primarily due to lower capital markets transactional volumes, partially offset by higher capital markets compliance volumes.

Net sales of software solutions of \$279.6 million for the year ended December 31, 2022 increased \$9.6 million, or 3.6%, as compared to the year ended December 31, 2021. Net sales of software solutions increased primarily due to higher ActiveDisclosure pricing and volumes as well as higher ArcPro, ArcReporting and ArcDigital volumes, partially offset by lower Venue and other compliance software solutions volumes.

Net sales of print and distribution of \$173.1 million for the year ended December 31, 2022 decreased \$30.7 million, or 15.1%, as compared to the year ended December 31, 2021. Net sales of print and distribution decreased primarily due to lower insurance and investment companies compliance volumes as a result of SEC Rules 30e-3 and 498A, which reduced print requirements, and lower capital markets transactional volumes.

Tech-enabled services cost of sales of \$141.1 million for the year ended December 31, 2022 decreased \$21.2 million, or 13.1%, as compared to the year ended December 31, 2021. Tech-enabled services cost of sales decreased primarily due to lower capital markets transactional volumes, lower incentive compensation expense and cost control initiatives, partially offset by an unfavorable sales mix. As a percentage of tech-enabled services net sales, tech-enabled services cost of sales increased 5.8%, primarily driven by an unfavorable sales mix, partially offset by lower incentive compensation expense and cost savings initiatives.

Software solutions cost of sales of \$113.4 million for the year ended December 31, 2022 increased \$8.1 million, or 7.7%, as compared the year ended December 31, 2021. Software solutions cost of sales increased primarily due to an unfavorable sales mix, higher product development expense, higher sales volumes and a higher allocation of overhead costs. As a percentage of software solutions net sales, software solutions costs of sales increased 1.6%, primarily driven by an unfavorable sales mix, higher product development expense and a higher allocation of overhead costs.

Print and distribution cost of sales of \$115.7 million for the year ended December 31, 2022 decreased \$29.8 million, or 20.5%, as compared to the year ended December 31, 2021. Print and distribution cost of sales decreased primarily due to lower sales volumes, cost savings as a result of the consolidation of the print platform, a lower allocation of overhead costs and lower incentive compensation expense. As a percentage of print and distribution net sales, print and distribution cost of sales decreased 4.6%, primarily driven by cost savings as a result of the consolidation of the print platform, a lower allocation of overhead costs and lower incentive compensation expense.

SG&A expenses of \$264.0 million for the year ended December 31, 2022 decreased \$43.7 million, or 14.2%, as compared to the year ended December 31, 2021. SG&A expenses decreased primarily due to lower selling expense as a result of a decrease in sales volumes, lower incentive compensation expense and a \$5.4 million decrease in expense related to the LSC multiemployer pension plans obligation, partially offset by higher bad debt, marketing and consulting expenses. As a percentage of net sales, SG&A expenses increased from 31.0% for the year ended December 31, 2021 to 31.7% for the year ended December 31, 2022, primarily driven by lower sales volumes and higher bad debt, marketing and consulting expenses, partially offset by lower selling expense, lower incentive compensation expense and lower expense related to the LSC multiemployer pension plans obligation.

Depreciation and amortization of \$46.3 million for the year ended December 31, 2022 increased \$6.0 million, or 14.9%, as compared to the year ended December 31, 2021, primarily due to higher software amortization expense.

Restructuring, impairment and other charges, net of \$7.7 million for the year ended December 31, 2022 decreased \$5.9 million, or 43.4%, as compared to the year ended December 31, 2021. For the year ended December 31, 2022, these charges included \$6.8 million of employee termination costs for approximately 130 employees. For the year ended December 31, 2021, these charges included impairment charges of \$9.2 million, primarily related to the partial impairment of an investment in equity securities and the demolition of an office building, and \$3.4 million of employee termination costs for approximately 175 employees.

Other operating loss, net of \$0.4 million for the year ended December 31, 2022 included a \$0.7 million loss on the sale of the EOL business. Other operating income, net of \$0.7 million for the year ended December 31, 2021 included a net gain on the sale of machinery and equipment from facilities being exited.

Income from operations of \$145.0 million for the year ended December 31, 2022 decreased \$74.3 million, or 33.9%, as compared to the year ended December 31, 2021. Income from operations decreased primarily due to lower capital markets transactional volumes, higher depreciation and amortization expense and higher bad debt and marketing expenses, partially offset by lower incentive compensation expense, lower selling expense as a result of the decrease in sales volumes, lower restructuring, impairment, and other charges, net and a \$5.4 million decrease in expense related to the LSC multiemployer pension plans obligation.

Interest expense, net of \$9.2 million for the year ended December 31, 2022 decreased \$17.4 million, or 65.4%, as compared to the year ended December 31, 2021. Interest expense, net decreased primarily due to the prepayment of the Company's Notes during the fourth quarter of 2021 and a lower interest rate on the Term Loan A Facility, partially offset by a higher average Revolving Facility balance during the year ended December 31, 2022 compared to the year ended December 31, 2021.

Investment and other income, net of \$3.5 million for the year ended December 31, 2022 decreased \$1.6 million, or 31.4%, as compared to the year ended December 31, 2021, primarily due to a decrease in net pension plan income, partially offset by an increase in earnings on equity investments.

The effective income tax rate was 26.4% for the year ended December 31, 2022 compared to 26.2% for the year ended December 31, 2021. The change in the effective income tax rate was primarily driven by decreased earnings in 2022, an increase in valuation allowances and an increase in non-deductible expenses, partially offset by favorable return to provision adjustments and income tax credits. Refer to Note 9, *Income Taxes*, to the audited Consolidated Financial Statements for further information.

Information by Segment

The following tables summarize net sales, income from operations, operating margin and certain items impacting comparability within each of the operating segments and Corporate.

Capital Markets – Software Solutions

	Year Ended December 31,			
	2022	2021	\$ Change	% Change
	(in millions, except percentages)			
Net sales	\$ 180.2	\$ 181.0	\$ (0.8)	(0.4%)
Income from operations	13.5	30.4	(16.9)	(55.6%)
Operating margin	7.5%	16.8%		
<i>Items impacting comparability</i>				
Restructuring, impairment and other charges, net	1.5	0.4	1.1	nm
Loss on sale of a business	0.7	—	0.7	nm
Accelerated rent expense	0.2	—	0.2	nm
Non-income tax, net	(0.6)	(1.0)	0.4	(40.0%)

nm – Not meaningful

Net sales of \$180.2 million for the year ended December 31, 2022 decreased \$0.8 million, or 0.4%, as compared to the year ended December 31, 2021. Net sales decreased primarily due to lower Venue and other compliance software solutions volumes, partially offset by higher ActiveDisclosure pricing and volumes.

Income from operations of \$13.5 million for the year ended December 31, 2022 decreased \$16.9 million, or 55.6%, as compared to the year ended December 31, 2021, primarily due to an unfavorable sales mix, an increase in depreciation and amortization, a higher allocation of overhead costs and higher product development costs, partially offset by lower selling expense, price increases and lower incentive compensation expense.

Operating margin decreased from 16.8% for the year ended December 31, 2021 to 7.5% for the year ended December 31, 2022, primarily due to an unfavorable sales mix, an increase in depreciation and amortization, a higher allocation of overhead costs and higher product development costs, partially offset by lower selling expense, price increases and lower incentive compensation expense.

Capital Markets – Compliance and Communications Management

	Year Ended December 31,			
	2022	2021	\$ Change	% Change
	(in millions, except percentages)			
Net sales	\$ 410.3	\$ 561.5	\$ (151.2)	(26.9%)
Income from operations	131.4	242.6	(111.2)	(45.8%)
Operating margin	32.0%	43.2%		
<i>Items impacting comparability</i>				
Restructuring, impairment and other charges, net	3.7	3.5	0.2	5.7%
Accelerated rent expense	0.4	—	0.4	nm
COVID-19 related recoveries	(0.5)	(0.2)	(0.3)	nm
Gain on sale of long-lived assets	(0.2)	—	(0.2)	nm
Non-income tax, net	(0.1)	(0.2)	0.1	(50.0%)

nm – Not meaningful

Net sales of \$410.3 million for the year ended December 31, 2022 decreased \$151.2 million, or 26.9%, as compared to the year ended December 31, 2021. Net sales decreased primarily due to lower transactional volumes, partially offset by higher compliance volumes.

Income from operations of \$131.4 million for the year ended December 31, 2022 decreased \$111.2 million, or 45.8%, as compared to the year ended December 31, 2021, primarily due to lower transactional sales volumes, an unfavorable sales mix, higher bad debt and marketing expenses and a higher allocation of overhead costs, partially offset by lower selling expense as a result of the decrease in sales volume, lower incentive compensation expense, price increases and cost control initiatives.

Operating margin decreased from 43.2% for the year ended December 31, 2021 to 32.0% for the year ended December 31, 2022, primarily due to an unfavorable sales mix, higher bad debt and marketing expenses and a higher allocation of overhead costs, partially offset by lower selling expense as a result of the decrease in sales volume, lower incentive compensation expense, price increases and cost control initiatives.

Investment Companies – Software Solutions

	Year Ended December 31,			
	2022	2021	\$ Change	% Change
	(in millions, except percentages)			
Net sales	\$ 99.4	\$ 89.0	\$ 10.4	11.7 %
Income from operations	21.9	8.9	13.0	nm
Operating margin	22.0 %	10.0 %		
<i>Items impacting comparability</i>				
Restructuring, impairment and other charges, net	0.5	0.1	0.4	nm
Non-income tax, net	(0.2)	(0.3)	0.1	(33.3 %)

nm – Not meaningful

Net sales of \$99.4 million for the year ended December 31, 2022 increased \$10.4 million, or 11.7%, as compared to the year ended December 31, 2021. Net sales increased primarily due to higher ArcPro, ArcReporting and ArcDigital volumes.

Income from operations of \$21.9 million for the year ended December 31, 2022 increased \$13.0 million, as compared to the year ended December 31, 2021, primarily due to higher sales volumes and lower incentive compensation expense, partially offset by higher product development costs.

Operating margin increased from 10.0% for the year ended December 31, 2021 to 22.0% for the year ended December 31, 2022, primarily due to higher sales volumes and lower incentive compensation expense, partially offset by higher product development costs.

Investment Companies – Compliance and Communications Management

	Year Ended December 31,			
	2022	2021	\$ Change	% Change
	(in millions, except percentages)			
Net sales	\$ 143.7	\$ 161.8	\$ (18.1)	(11.2 %)
Income from operations	35.7	15.0	20.7	nm
Operating margin	24.8 %	9.3 %		
<i>Items impacting comparability</i>				
Restructuring, impairment and other charges, net	1.4	2.9	(1.5)	(51.7 %)
Accelerated rent expense	0.1	—	0.1	nm
COVID-19 related recoveries	—	(0.8)	0.8	(100.0 %)
Gain on sale of long-lived assets, net	—	(0.7)	0.7	(100.0 %)
Non-income tax, net	—	(0.1)	0.1	(100.0 %)

nm – Not meaningful

Net sales of \$143.7 million for the year ended December 31, 2022 decreased \$18.1 million, or 11.2%, as compared to the year ended December 31, 2021. Net sales decreased primarily due to lower print volumes as a result of the implementation of SEC Rules 30e-3 and 498A, which reduced print requirements.

Income from operations of \$35.7 million for the year ended December 31, 2022 increased \$20.7 million, as compared to the year ended December 31, 2021, primarily due to a favorable sales mix, a lower allocation of overhead costs, lower incentive compensation expense, cost savings as a result of the consolidation of the print platform and lower restructuring, impairment, and other charges, net.

Operating margin increased from 9.3% for the year ended December 31, 2021 to 24.8% for the year ended December 31, 2022, primarily due to a favorable sales mix, a lower allocation of overhead costs, lower incentive compensation expense, cost savings as a result of the consolidation of the print platform and lower restructuring, impairment, and other charges, net.

Corporate

The following table summarizes unallocated operating expenses and certain items impacting comparability within the activities presented as Corporate:

	Year Ended December 31,	
	2022	2021
	(in millions)	
Operating expenses	\$ 57.5	\$ 77.6
<i>Items impacting comparability</i>		
Share-based compensation expense	19.3	19.5
Restructuring, impairment and other charges, net	0.6	6.7
Accelerated rent expense	0.1	—
Disposition-related expenses	0.1	—
LSC multiemployer pension plans obligation	—	5.4

Corporate operating expenses of \$57.5 million for the year ended December 31, 2022 decreased \$20.1 million as compared to the year ended December 31, 2021, primarily due to lower incentive compensation expense, lower restructuring, impairment, and other charges, net and the 2021 LSC multiemployer pension plans obligation expense, partially offset by a higher allocation of costs and higher legal expenses.

Non-GAAP Measures

The Company believes that certain non-GAAP measures, such as non-GAAP adjusted EBITDA (“Adjusted EBITDA”), provide useful information about the Company’s operating results and enhance the overall ability to assess the Company’s financial performance. The Company uses these measures, together with other measures of performance prepared in accordance with accounting principles generally accepted in the United States (“GAAP”), to compare the relative performance of operations in planning, budgeting and reviewing the performance of its business. Adjusted EBITDA allows investors to make a more meaningful comparison between the Company’s core business operating results over different periods of time. The Company believes that Adjusted EBITDA, when viewed with the Company’s results under GAAP and the accompanying reconciliations, provides useful information about the Company’s business without regard to potential distortions. By eliminating potential differences in results of operations between periods caused by factors such as historic cost and age of assets, restructuring, impairment and other charges, net, non-income tax, net, gain on equity investments, net as well as other items, as described below, the Company believes that Adjusted EBITDA can provide a useful additional basis for comparing the current performance of the underlying operations being evaluated.

Adjusted EBITDA is not presented in accordance with GAAP and has important limitations as an analytical tool. These measures should not be considered as a substitute for analysis of the Company’s results as reported under GAAP. In addition, these measures are defined differently by different companies and, accordingly, such measures may not be comparable to similarly-titled measures of other companies. In addition to the factors listed above, the following items are excluded from Adjusted EBITDA:

- **Share-based compensation expense.** Although share-based compensation is a key incentive offered to certain of the Company’s employees, business performance is evaluated excluding share-based compensation expenses. Depending upon the size, timing and the terms of grants, share-based compensation expense may vary but will recur in future periods.
- **LSC multiemployer pension plans obligation.** As a result of LSC's bankruptcy, the Company recorded charges for estimated payments related to the LSC MEPP Liabilities, as the Company and RRD remained jointly and severally liable for LSC MEPP Liabilities arising prior to the Company's and LSC's separation from RRD.
- **COVID-19 related recoveries.** As a result of incremental expenses (including incremental vendor costs and premium wages paid to certain employees as well as costs to clean and disinfect the Company's facilities more frequently) incurred related to the COVID-19 pandemic, during the year ended December 31, 2021, the Company received an insurance reimbursement associated with these incremental expenses. During the year ended December 31, 2022, the Company received certain government subsidies related to employee wages at certain international locations.

A reconciliation of net earnings to Adjusted EBITDA for the years ended December 31, 2022 and 2021 is presented in the following table:

	Year Ended December 31,	
	2022	2021
	(in millions)	
Net earnings	\$ 102.5	\$ 145.9
Restructuring, impairment and other charges, net	7.7	13.6
Share-based compensation expense	19.3	19.5
Accelerated rent expense	0.8	—
Loss on sale of a business	0.7	—
Disposition-related expenses	0.1	—
Non-income tax, net	(0.9)	(1.6)
COVID-19 related recoveries	(0.5)	(1.0)
Gain on equity investments, net	(0.5)	(0.4)
Gain on sale of long-lived assets, net	(0.2)	(0.7)
LSC multiemployer pension plans obligation	—	5.4
Depreciation and amortization	46.3	40.3
Interest expense, net	9.2	26.6
Investment and other income, net	(3.0)	(4.7)
Income tax expense	36.8	51.9
Adjusted EBITDA	<u>\$ 218.3</u>	<u>\$ 294.8</u>

Restructuring, impairment and other charges, net—The year ended December 31, 2022 included employee termination costs of \$6.8 million. The year ended December 31, 2021 included employee termination costs of \$3.4 million and impairment charges of \$9.2 million, primarily related to a partial impairment of an investment in equity securities and the demolition of an office building. Refer to Note 6, *Restructuring, Impairment and Other Charges, net*, to the audited Consolidated Financial Statements for additional information.

Share-based compensation expense—Included charges of \$19.3 million and \$19.5 million for the years ended December 31, 2022 and 2021, respectively.

Accelerated rent expense—Included charges of \$0.8 million for the year ended December 31, 2022 for the acceleration of rent expense associated with abandoned operating leases.

Loss on sale of a business—Included a loss of \$0.7 million for the year ended December 31, 2022 related to the disposition of the EOL business.

Disposition-related expenses—Included charges of \$0.1 million for the year ended December 31, 2022 related to legal costs associated with the disposition of the EOL business.

Non-income tax, net—Included income of \$0.9 million and \$1.6 million for the years ended December 31, 2022 and 2021, respectively, related to certain estimated non-income tax exposures previously accrued by the Company.

COVID-19 related recoveries—Included recoveries of \$0.5 million for the year ended December 31, 2022 related to government subsidies, as described above, and recoveries of \$1.0 million for the year ended December 31, 2021, primarily related to insurance reimbursements of COVID-19 related expenses.

Gain on equity investments, net—Included net unrealized gains of \$0.5 million and \$0.4 million for the years ended December 31, 2022 and 2021, respectively. Refer to Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*, to the audited Consolidated Financial Statements for additional information.

Gain on sale of long-lived assets, net—Included a gain of \$0.2 million for the year ended December 31, 2022 from non-refundable deposits on agreements for the sale of land and a net gain of \$0.7 million for the year ended December 31, 2021, primarily related to the sale of machinery and equipment from facilities being exited as a result of restructuring actions.

LSC multiemployer pension plans obligation—Included charges of \$5.4 million for the year ended December 31, 2021 for the Company's accrual related to the LSC MEPP Liabilities.

Selected Financial Data

	Year Ended December 31,	
	2022	2021
(in millions, except per share data)		
Consolidated Statements of Operations data:		
Net sales	\$ 833.6	\$ 993.3
Net earnings	102.5	145.9
Net earnings per share:		
Basic	3.33	4.36
Diluted	3.17	4.14
Consolidated Balance Sheets data:		
Total assets	828.3	883.3
Long-term debt	169.2	124.0

The following table includes the pre-tax and after-tax impact of certain Non-GAAP adjustments for the years ended December 31, 2022 and 2021:

	Year Ended December 31, 2022		Year Ended December 31, 2021	
	Pre-tax	After-tax	Pre-tax	After-tax
(in millions)				
Restructuring, impairment and other charges, net	\$ 7.7	\$ 5.7	\$ 13.6	\$ 9.9
Share-based compensation expense	19.3	12.1	19.5	9.9
Accelerated rent expense	0.8	0.6	—	—
Loss on sale of a business	0.7	0.4	—	—
Disposition-related expenses	0.1	0.1	—	—
Non-income tax, net	(0.9)	(0.6)	(1.6)	(1.2)
COVID-19 related recoveries	(0.5)	(0.3)	(1.0)	(0.7)
Gain on equity investments, net	(0.5)	(0.4)	(0.4)	(0.3)
Gain on sale of long-lived assets, net	(0.2)	(0.2)	(0.7)	(0.5)
Loss on debt extinguishments	—	—	7.4	5.4
LSC multiemployer pension plans obligation	—	—	5.4	3.9

Liquidity and Capital Resources

The Company believes it has sufficient liquidity to support its ongoing operations and to invest in future growth to create value for its investors. Cash on hand, operating cash flows and the Company's Revolving Facility are the primary sources of liquidity and are expected to be used for, among other things, payment of interest and principal on the Company's debt obligations, capital expenditures necessary to support productivity improvement and growth, acquisitions and completion of restructuring programs.

The Company maintains cash pooling structures that enable participating international locations to draw on the pools' cash resources to meet local liquidity needs. Foreign cash balances may be loaned from certain cash pools to U.S. operating entities on a temporary basis in order to reduce the Company's short-term borrowing costs or for other purposes. The Company has the ability to repatriate foreign cash, associated with foreign earnings previously subjected to U.S. tax, with minimal additional tax consequences. The Company maintains its assertion of indefinite reinvestment on all foreign earnings and other outside basis differences to indicate that the Company remains indefinitely reinvested in operations outside of the U.S., with the exception of the previously taxed foreign earnings already subject to U.S. tax. The Company repatriated excess cash at its foreign subsidiaries to the U.S. during the year ended December 31, 2021 and did not make cash repatriations during 2022 and 2020. The Company is evaluating whether to make any cash repatriations in the future.

On August 16, 2022, President Biden signed the Inflation Reduction Act ("IRA") into law, which included enactment of a 15% corporate minimum tax effective in 2023 and imposes a 1% excise tax on share repurchases that occur after December 31, 2022. The Company currently does not expect the IRA to have a material impact on its financial results.

The Company currently expects capital expenditures to be approximately \$60 million in 2023, as compared to \$54.2 million in 2022. The increase in capital expenditures relates to investments in the Company's software portfolio.

Cash and cash equivalents were \$34.2 million at December 31, 2022, which included \$4.2 million in the U.S. and \$30.0 million at international locations.

The following describes the Company's cash flows for the years ended December 31, 2022 and 2021:

	Year Ended December 31,	
	2022	2021
	(in millions)	
Net cash provided by operating activities	\$ 150.2	\$ 180.0
Net cash used in investing activities	(50.9)	(45.0)
Net cash used in financing activities	(121.1)	(154.9)
Effect of exchange rate on cash and cash equivalents	1.5	0.8
Net decrease in cash and cash equivalents	<u>\$ (20.3)</u>	<u>\$ (19.1)</u>

Cash Flows Provided By Operating Activities

Operating cash inflows and outflows are largely attributable to sales of the Company's services and products as well as recurring expenditures for labor, rent, raw materials and other operating activities.

Net cash provided by operating activities was \$150.2 million for the year ended December 31, 2022, as compared to \$180.0 million for the year ended December 31, 2021. The decrease in net cash provided by operating activities was primarily due to the unfavorable change in accrued liabilities and other and the decrease in net earnings, partially offset by favorable changes to accounts receivable, accounts payable and a decrease in income taxes and interest paid during the year ended December 31, 2022. Accrued liabilities and other decreased operating cash flows by \$53.9 million for the year ended December 31, 2022, as compared to a \$36.6 million increase in operating cash flows for the year ended December 31, 2021, primarily due to higher incentive compensation and sales commission payments in 2022 and lower incentive compensation and sales commission accruals in 2022 compared to 2021. Accounts receivable increased operating cash flows by \$24.4 million for the year ended December 31, 2022, as compared to a \$28.8 million decrease for the year ended December 31, 2022, due to the decline in revenue. Accounts payable increased operating cash flows by \$12.1 million for the year ended December 31, 2022, as compared to decreasing operating cash flows by \$19.8 million for the year ended December 31, 2021, due to timing of supplier payments. The Company's income tax payments decreased by \$26.6 million to \$38.4 million for the year ended December 31, 2022 from \$65.0 million for the year ended December 31, 2021, primarily due to the decrease in pre-tax earnings for the year ended December 31, 2022. The Company's interest payments decreased to \$7.6 million for the year ended December 31, 2022 from \$21.8 million for the year ended December 31, 2021, primarily due to the Company's prepayment of its 8.25% Senior Notes Due 2024 (the "Notes") in 2021.

Cash Flows Used In Investing Activities

Net cash used in investing activities was \$50.9 million for the year ended December 31, 2022, which consisted of \$54.2 million of capital expenditures, mostly driven by investments in software development, partially offset by \$3.3 million of proceeds from the sale of the EOL business.

Net cash used in investing activities was \$45.0 million for the year ended December 31, 2021, which primarily consisted of capital expenditures of \$42.3 million, mostly driven by investments in software development, and the acquisition of Guardum.

Cash Flows Used In Financing Activities

Net cash used in financing activities was \$121.1 million for the year ended December 31, 2022. During the year ended December 31, 2022, the Company received \$345.5 million of proceeds from the Revolving Facility borrowings, offset by \$300.5 million of payments on the Revolving Facility borrowings. The Company's common stock repurchases for the year ended December 31, 2022 totaled \$164.7 million, which included \$152.5 million of repurchases under the stock repurchase program and \$12.2 million associated with vesting of the Company employees' equity awards.

Net cash used in financing activities was \$154.9 million for the year ended December 31, 2021. During the year ended December 31, 2021, the Company received \$278.0 million of proceeds from the Revolving Facility borrowings, offset by \$278.0 million of payments on the Revolving Facility borrowings. The Company made \$312.8 million of payments on long term debt, including the redemption of \$233.0 million of the Notes, which were partially paid for with proceeds of \$200.0 million from the Term Loan A Facility during the year ended December 31, 2021, and \$75.0 million of prepayments on the Term Loan A Facility. The Company's common stock repurchases for the year ended December 31, 2021 totaled \$40.9 million, which included \$32.2 million of repurchases under the stock repurchase program and \$8.7 million associated with vesting of the Company employees' equity awards.

Contractual Cash Obligations and Other Commitments and Contingencies

As of December 31, 2022, the Company had total future contractual and other obligations of approximately \$438 million, with approximately \$156 million of the future contractual and other obligations due during 2023. The future contractual obligations consist of outstanding debt and related interest, operating and finance lease payments, outsourced services relating to information technology, maintenance and other services, sales commissions, incentive compensation, deferred compensation, multi-employer pension plan obligations and other miscellaneous obligations. Refer to Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*; Note 5, *Leases*; Note 6, *Restructuring, Impairment and Other Charges, net*; Note 7, *Retirement Plans*; Note 8, *Commitments and Contingencies* and Note 10, *Debt* to the audited Consolidated Financial Statements for additional information.

Debt

The Company's debt as of December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
	(in millions)	
Term Loan A Facility	\$ 125.0	\$ 125.0
Borrowings under the Revolving Facility	45.0	—
Unamortized debt issuance costs	(0.8)	(1.0)
Total long-term debt	\$ 169.2	\$ 124.0

The Company's debt maturity and interest payments schedule as of December 31, 2022 is shown in the table below:

	Payments Due In						
	Total	2023	2024	2025	2026	2027	2028 and thereafter
	(in millions)						
Term Loan A Facility ^(a)	\$ 125.0	\$ —	\$ —	\$ —	\$ 125.0	\$ —	\$ —
Borrowings under the Revolving Facility ^(a)	45.0	—	—	—	45.0	—	—
Interest ^(b)	37.5	10.9	11.1	11.1	4.4	—	—
Total as of December 31, 2022	\$ 207.5	\$ 10.9	\$ 11.1	\$ 11.1	\$ 174.4	\$ —	\$ —

(a) Excludes unamortized debt issuance costs of \$0.8 million, which do not represent contractual commitments with a fixed amount or maturity date.

(b) Includes estimated interest for the Term Loan A Facility and the Revolving Facility based on borrowings and the interest rates at December 31, 2022. Estimated interest payments may differ in the future based on changes in borrowings, floating interest rates, timing of additional prepayments or other factors or events.

Credit Agreement—On May 27, 2021 (the “Restatement Effective Date”), the Company amended and restated its credit agreement dated as of September 30, 2016 (as in effect prior to such amendment and restatement, the “Credit Agreement,” and the Credit Agreement, as so amended and restated, the “Amended and Restated Credit Agreement”), by and among the Company, the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, to, among other things, provide for a \$200.0 million delayed-draw term loan A facility (the “Term Loan A Facility”) (bearing interest at a rate equal to the sum of the London Interbank Offered Rate (“LIBOR”) plus a margin ranging from 2.00% to 2.50% based upon the Company's Consolidated Net Leverage Ratio), extend the maturity of the \$300.0 million Revolving Facility to May 27, 2026 and modify the financial maintenance and negative covenants in the Credit Agreement. The unpaid principal amount of the Term Loan A Facility is due and payable in full on May 27, 2026. Voluntary prepayments of the Term Loan A Facility are permitted at any time without premium or penalty.

The Amended and Restated Credit Agreement contains a number of covenants, including a minimum Interest Coverage Ratio and the Consolidated Net Leverage Ratio, as defined in and calculated pursuant to the Credit Agreement, that, in part, restrict the Company's ability to incur additional indebtedness, create liens, engage in mergers and consolidations, make restricted payments and dispose of certain assets. The Credit Agreement generally allows annual dividend payments of up to \$20.0 million in the aggregate, though additional dividends may be allowed subject to certain conditions. Each of these covenants is subject to important exceptions and qualifications.

As of December 31, 2022, there were \$45.0 million of borrowings outstanding under the Revolving Facility as well as \$2.6 million in outstanding letters of credit and bank guarantees and none of the outstanding letters of credit reduced the availability under the Revolving Facility. Based on the Company's results of operations for the year ended December 31, 2022 and existing debt, the Company would have had the ability to utilize the remaining \$255.0 million of the Revolving Facility and not have been in violation of the terms of the agreement.

The current availability under the Revolving Facility and net available liquidity as of December 31, 2022 is shown in the table below:

	December 31, 2022
	(in millions)
Availability	
Revolving Facility	\$ 300.0
Availability reduction from covenants	—
	<u>\$ 300.0</u>
Usage	
Borrowings under the Revolving Facility	\$ 45.0
Current availability at December 31, 2022	\$ 255.0
Cash and cash equivalents	34.2
Net Available Liquidity	<u><u>\$ 289.2</u></u>

The Company was in compliance with its debt covenants as of December 31, 2022, and expects to remain in compliance based on management's estimates of operating and financial results for fiscal year 2023 and the foreseeable future. However, declines in market and economic conditions or demand for certain of the Company's services and products could impact the Company's ability to remain in compliance with its debt covenants in future periods.

The failure of a financial institution supporting the Revolving Facility would reduce the size of the Company's committed facility unless a replacement institution was added. As of December 31, 2022, the Revolving Facility is supported by fifteen U.S. and international financial institutions.

As of December 31, 2022, the Company met all the conditions required to borrow under the Revolving Facility, and management expects the Company to continue to meet the applicable borrowing conditions.

Acquisitions and Dispositions

The Company's disposition of the Edgar Online ("EOL") business closed on November 9, 2022, and the Company received net cash proceeds of \$3.3 million.

On December 13, 2021, the Company completed the acquisition of Guardum, a leading data security and privacy software provider that helps companies locate, secure and control data. The acquisition enhances the Company's Venue offering. By safeguarding privacy and improving data accuracy, Guardum's data security is a competitive differentiator. Prior to the acquisition, the Company held a 33.0% investment in Guardum. The purchase price for the remaining equity of Guardum was \$3.6 million, net of cash acquired of \$0.1 million.

OTHER INFORMATION

Litigation and Contingent Liabilities

For a discussion of certain litigation and contingent liabilities involving the Company, see Note 8, *Commitments and Contingencies*, to the audited Consolidated Financial Statements.

Critical Accounting Estimates

The preparation of financial statements in conformity with GAAP requires the extensive use of management's estimates and assumptions that affect the reported amounts of assets and liabilities as well as disclosures of contingent assets and liabilities as of the date of the financial statements and the reported amounts of revenue and expenses during the reporting periods. Actual results could differ from these estimates. Estimates are used when accounting for items and matters including, but not limited to, revenue recognition, goodwill, asset valuations and useful lives, pension and income taxes.

Revenue Recognition

The Company manages highly-customized data and materials to enable filings with the SEC on behalf of its customers related to the Exchange Act, the Securities Act and the Investment Company Act as well as performs XBRL and other services. Clients are provided with EDGAR filing services, XBRL compliance services and translation, editing, interpreting, proof-reading and multilingual typesetting services, among other services. The Company provides software solutions to public and private companies, mutual funds and other regulated investment firms to serve their regulatory and compliance needs, including Venue, Arc Suite, ActiveDisclosure, among others, and provides digital document creation, online content management and print and distribution solutions.

Revenue is recognized upon transfer of control of promised services or products to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those services or products. The Company's services include software solutions and tech-enabled services whereas the Company's products are comprised of print and distribution offerings. The Company's arrangements with customers often include promises to transfer multiple services or products to a customer. Determining whether services and products are considered distinct performance obligations that should be accounted for separately requires significant judgment. Certain customer arrangements have multiple performance obligations as certain promises are both capable of being distinct and are distinct within the context of the contract. Other customer arrangements have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts, and therefore is not distinct. For arrangements with multiple performance obligations, the transaction price is allocated to the separate performance obligations. When the Company provides customer specific solutions, observable standalone selling price is rarely available. As such, standalone selling price is determined using an estimate of the standalone selling price of each distinct service or product, taking into consideration historical selling price by customer for each distinct service or product, if available. These estimates may vary from the final amounts invoiced to the customer and are adjusted upon completion of all performance obligations.

Certain revenues earned by the Company require significant judgment to determine if revenue should be recorded gross, as a principal, or net of related costs, as an agent. Billings for shipping and handling costs as well as certain postage costs, and out-of-pocket expenses are recorded gross.

The timing of revenue recognition may differ from the timing of invoicing to customers and these timing differences result in contract assets, unbilled receivables or contract liabilities. Contract assets represent revenue recognized for performance obligations completed before an unconditional right to payment exists and therefore invoicing has not yet occurred. The Company generally estimates contract assets based on the historical selling price adjusted for its current experience and expected resolution of the variable consideration of the completed performance obligation. When the Company's contracts contain variable consideration, the variable consideration is recognized only to the extent that it is probable that a significant revenue reversal will not occur in a future period. As a result, the estimated revenue and contract assets may be constrained until the uncertainty associated with the variable consideration is resolved, which generally occurs in less than one year. Determining whether there will be a significant revenue reversal in the future and the determination of the amount of the constraint requires significant judgment.

Generally, the contract assets balance is impacted by the recognition of additional revenue, amounts invoiced to customers and changes in the level of constraint applied to variable consideration. Unbilled receivables are recorded when there is an unconditional right to payment and invoicing has not yet occurred. The Company estimates the value of unbilled receivables based on a combination of historical customer selling price and management's assessment of realizable selling price. Unbilled receivables can vary significantly from period to period as a result of seasonality, volume and market conditions. Unbilled receivables and contract assets are included in accounts receivable on the audited Consolidated Balance Sheets. Contract liabilities consist of deferred revenue and progress billings which are included in accrued liabilities on the audited Consolidated Balance Sheets.

Goodwill

The Company performs its goodwill impairment tests annually as of October 31, or more frequently if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. The Company also performs an interim review for indicators of impairment each quarter to assess whether an interim impairment review is required for any reporting unit. As part of its interim reviews, management analyzes potential changes in the value of individual reporting units based on each reporting unit's operating results for the period compared to expected results as of the prior year's annual impairment test. In addition, management considers how other key assumptions, including discount rates and expected long-term growth rates, used in the last annual impairment test, could be impacted by changes in market conditions and economic events. Based on these interim assessments, management concluded that as of the interim periods, no events or changes in circumstances indicated that it was more likely than not that the fair value for any reporting unit had declined below its carrying amount.

Three of the Company's four reporting units, CM-SS, CM-CCM and IC-SS, had goodwill as of October 31, 2022.

For the annual goodwill impairment review, the Company has the option to perform a qualitative test (also known as "Step 0") or a quantitative test ("Step 1"). Under the Step 0 test, the Company first assesses qualitative factors to determine whether it is more likely than not that the fair value of the reporting unit is less than its carrying value. If after assessing these qualitative factors, the Company determines it is not "more-likely-than-not" that the fair value of the reporting unit is less than the carrying value, then the Step 1 quantitative test is not required.

Step 1 of the quantitative test requires comparison of the fair value of each of the reporting units to the respective carrying value. If the carrying value of the reporting unit is less than the fair value, no impairment exists. If the carrying amount of a reporting unit exceeded the estimated fair value, an impairment loss is recognized, generally in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

Qualitative Assessment for Impairment—As of October 31, 2022, the Company performed a qualitative assessment for the CM-SS, CM-CCM and IC-SS reporting units, to determine whether it was more likely than not that the fair values of the reporting units were less than their carrying values. In performing this analysis, the Company considered various qualitative factors, including, economic conditions, industry and market considerations, cost factors, overall financial performance of the reporting unit and other entity and reporting unit specific events.

Based on its qualitative assessments, management concluded that as of October 31, 2022, it was not more likely than not that the fair values of the reporting units were less than their respective carrying values. The goodwill balances of the CM-SS, CM-CCM and IC-SS reporting units as of December 31, 2022 were \$100.1 million, \$252.7 million and \$53.0 million, respectively.

Goodwill Impairment Assumptions—Although the Company believes its estimates of fair value are reasonable, actual financial results could differ from those estimates due to the inherent uncertainty involved in making such estimates. Changes in assumptions concerning future financial results, including lower than expected growth or profitability, unfavorable regulatory developments or other underlying assumptions could have a significant impact on the fair value of the reporting units.

Other Long-Lived Assets

The Company evaluates the recoverability of other long-lived assets, including operating lease right-of-use assets ("ROU"), property, plant and equipment, software and definite-lived intangible assets, whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. The Company assesses its asset groups for indicators of impairment on a recurring basis. Factors which could trigger an impairment review include significant underperformance relative to historical or projected future operating results, significant changes in the manner of use of the assets or the strategy for the overall business, a significant decrease in the market value of the assets or significant negative industry or economic trends. When the Company determines that the carrying value of one of its asset groups may not be recoverable based upon the existence of one or more of the indicators, the assets are assessed for impairment based on the estimated future undiscounted cash flows expected to result from the use of the asset group and its eventual disposition. If the carrying value of an asset group exceeds its estimated future undiscounted cash flows, an impairment loss is recorded for the excess of the asset group's carrying value over its fair value.

During the year ended December 31, 2021, the Company recorded non-cash impairment charges of \$3.3 million associated with its other long-lived assets, primarily related to the demolition of an office building in the CM-CCM segment.

Pension and Other Postretirement Benefits Plans

The Company's primary defined benefit plan was frozen effective December 31, 2011. No new employees are permitted to enter the Company's frozen plan and participants will earn no additional benefits. Benefits are generally based upon years of service and compensation. These defined benefit retirement income plans are funded in conformity with the applicable government regulations. The Company funds at least the minimum amount required for all funded plans using actuarial cost methods and assumptions acceptable under government regulations.

The annual income and expense amounts relating to the pension plan are based on calculations which include various actuarial assumptions including mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring remeasurement occurs) and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the audited Consolidated Balance Sheets, but are amortized into operating earnings over future periods, with the deferred amount recorded in accumulated other comprehensive loss. The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. The weighted-average discount rate to determine the pension benefit obligation at December 31, 2022 was 5.2%.

A 1.0% change in the discount rates as of December 31, 2022 would (decrease) increase the accumulated benefit obligation and projected benefit obligation:

	1.0% Increase	1.0% Decrease
	(in millions)	
Accumulated benefit obligation	\$ (20.2)	\$ 23.8
Projected benefit obligation	\$ (20.2)	\$ 23.8

The Company's defined benefit plan has a risk management approach for its pension plan assets. The overall investment objective of this approach is to further reduce the risk of significant decreases in the plan's funded status by allocating a larger portion of the plan's assets to investments expected to hedge the impact of interest rate risks on the plan's obligation.

The expected long-term rate of return for the plan assets is based upon many factors including expected asset allocations, historical asset returns, current and expected future market conditions and risk. In addition, the Company considered the impact of the current interest rate environment on the expected long-term rate of return for certain asset classes, particularly fixed income. The target asset allocation percentage for the pension plan was approximately 60% for fixed income investments and 40% for return seeking investments. The expected long-term rate of return on plan assets assumption used to calculate net pension plan income in 2022 was 4.8% for the Company's pension plans. The expected long-term rate of return on plan assets assumption that will be used to calculate net pension plan income in 2023 is 5.8%.

A 0.25% change in the expected long-term rate of return on plan assets as of December 31, 2022 would increase (decrease) net pension plan income for the year ending December 31, 2023 as follows:

	Year Ending December 31, 2023
	(in millions)
0.25% increase	\$ 0.6
0.25% decrease	\$ (0.6)

In the Company's audited Consolidated Financial Statements, income tax expense and deferred tax balances have been calculated on a separate income tax return basis.

Significant judgment is required in determining the provision for income taxes and related accruals, deferred tax assets and liabilities and any valuation allowance recorded against deferred tax assets. In the ordinary course of business, there are transactions and calculations where the ultimate tax outcome is uncertain. Additionally, the Company's tax returns are subject to audit by various U.S. and foreign tax authorities. The Company recognizes a tax position in its financial statements when it is more likely than not (*i.e.*, a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Although management believes that its estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in the Company's historical financial statements.

The Company has recorded deferred tax assets related to future deductible items, including domestic and foreign tax loss and credit carryforwards. The Company evaluates these deferred tax assets by tax jurisdiction. The utilization of these tax assets is limited by the amount of taxable income expected to be generated within the allowable carryforward period and other factors. Accordingly, management has provided a valuation allowance to reduce certain of these deferred tax assets when management has concluded that, based on the weight of available evidence, it is more likely than not that the deferred tax assets will not be fully realized. If actual results differ from these estimates, or the estimates are adjusted in future periods, adjustments to the valuation allowance might need to be recorded. As of December 31, 2022 and 2021, valuation allowances of \$5.4 million and \$4.8 million, respectively, were recorded in the Company's audited Consolidated Balance Sheets. Refer to Note 9, *Income Taxes*, to the audited Consolidated Financial Statements for further detail on the accounting for income taxes.

New Accounting Pronouncements and Pending Accounting Standards

Recently issued accounting standards and their estimated effect on the Company's audited Consolidated Financial Statements are described in Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*, to the audited Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk

The Company is exposed to potential fluctuations in earnings, cash flows, and the fair value of certain assets and liabilities due to changes in interest rates and foreign currency exchange rates. The Company manages exposure to these market risks through regular operating and financial activities and, when deemed appropriate, through the use of derivative financial instruments for risk management purposes. As a result, the Company does not anticipate any material losses from these risks. The Company was not a party to any derivative financial instrument as of December 31, 2022 and 2021. The Company discusses risk management in various places throughout this Annual Report, including discussions concerning liquidity and capital resources.

Foreign Exchange Risk

While the substantial majority of the Company's business is conducted within the U.S., approximately 14% of the Company's net sales during the year ended December 31, 2022 were earned outside of the U.S. The Company has operations internationally that are denominated in foreign currencies, primarily the Hong Kong dollar, Canadian dollar, and British Pound, exposing the Company to foreign currency exchange risk which may adversely impact financial results. The exposure to foreign currency movements is limited in many countries because the operating revenues and expenses of the Company's various subsidiaries and business units are substantially in the local currency of the country in which they operate. To the extent that borrowings, revenues, expenses or other transactions are not in the local currency of the subsidiary, the Company is exposed to currency risk and may enter into foreign exchange spot and forward contracts to hedge the currency risk. The Company does not use derivative financial instruments for trading or speculative purposes.

For the year ended December 31, 2022, a hypothetical 10% strengthening of the U.S. dollar relative to multiple currencies would have resulted in a decrease in the Company's earnings before income taxes of approximately \$0.6 million. A hypothetical 10% strengthening of the U.S. dollar relative to multiple currencies as of December 31, 2022 would have resulted in a decrease in total assets of approximately \$5.8 million.

Interest Rate Risk

The Company assesses market risk based on changes in interest rates utilizing a sensitivity analysis that measures the potential loss in earnings, fair values and cash flows based on a hypothetical 10% change in interest rates. Using this sensitivity analysis for the year ended December 31, 2022, such changes would have a \$2.5 million impact on interest expense and cash flows.

A hypothetical 10% change in yield as of December 31, 2022 would change the fair value of the Term Loan A Facility by approximately \$12.2 million, or 10.0%.

Credit Risk

The Company is exposed to credit risk on accounts receivable balances. This risk is mitigated due to the Company's large, diverse customer base, dispersed over various geographic regions and industrial sectors. No single customer comprised more than 10% of the Company's net sales for the years ended December 31, 2022, 2021 and 2020. The Company maintains provisions for potential credit losses and such losses to date have normally been within the Company's expectations. The Company evaluates the solvency of its customers on an ongoing basis to determine if additional allowances for expected losses needs to be recorded. Significant economic disruptions or a slowdown in the economy could result in significant additional charges.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial information required by Item 8 is located beginning on page F-1 of this Annual Report.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

(a) Disclosure controls and procedures.

Management, together with the Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(b) and Rule 15d-15(e) of the Exchange Act) as of December 31, 2022. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2022.

(b) Changes in internal control over financial reporting.

Changes in Internal Control Over Financial Reporting. There were no changes in the Company's internal control over financial reporting (as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2022 that have materially affected or are reasonably likely to materially affect, the Company's internal control over financial reporting.

Management's Annual Report on Internal Control Over Financial Reporting. The Company's management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) and 15d-15(f) of the Exchange Act. Under the supervision and with the participation of the Company's management, including its Chief Executive Officer and Chief Financial Officer, the Company conducted an evaluation of the effectiveness of internal control over financial reporting as of December 31, 2022 based on the guidelines established in *Internal Control - Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the results of the Company's evaluation, management has concluded that internal control over financial reporting was effective as of December 31, 2022.

Deloitte & Touche LLP, an independent registered public accounting firm, who audited the consolidated financial statements of the Company included in this Annual Report, has also audited the effectiveness of the Company's internal control over financial reporting as stated in its report appearing below.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Donnelley Financial Solutions, Inc.

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Donnelley Financial Solutions, Inc. and subsidiaries (the “Company”) as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2022, of the Company and our report dated February 21, 2023, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Company’s management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management’s Annual Report on Internal Control Over Financial Reporting*. Our responsibility is to express an opinion on the Company’s internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

A company’s internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company’s internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company’s assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 21, 2023

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS AND EXECUTIVE OFFICERS OF DONNELLEY FINANCIAL SOLUTIONS, INC. AND CORPORATE GOVERNANCE

Information regarding directors and executive officers of the Company is incorporated herein by reference to the descriptions under “Proposal 1: Election of Directors,” “The Board’s Committees and their Functions” and “Section 16(a) Beneficial Ownership Reporting Compliance” of the Company’s Proxy Statement for the Annual Meeting of Stockholders scheduled to be held May 17, 2023 (the “2023 Proxy Statement”).

The Company has adopted a policy statement entitled *Code of Ethics* that applies to its chief executive officer and senior financial officers. In the event that an amendment to, or a waiver from, a provision of the *Code of Ethics* is made or granted, the Company intends to post such information on its web site, www.dfinsolutions.com. A copy of the Company’s *Code of Ethics* has been filed as Exhibit 14.1 to this Annual Report.

EXECUTIVE OFFICERS OF DONNELLEY FINANCIAL SOLUTIONS, INC.

Name, Age and Position with the Company	Officer Since	Business Experience
Daniel N. Leib 56, Chief Executive Officer	2016	Served as RRD’s Executive Vice President and Chief Financial Officer from May 2011 to October 2016. Served as RRD’s Group Chief Financial Officer and Senior Vice President, Mergers and Acquisitions since August 2009 and Treasurer from June 2008 to February 2010 and as RRD’s Senior Vice President, Treasurer, Mergers and Acquisitions and Investor Relations since July 2007. Prior to this, from May 2004 to 2007, served in various capacities in financial management, corporate strategy and investor relations for RRD.
David A. Gardella 53, Chief Financial Officer	2016	Served as RRD’s Senior Vice President, Investor Relations & Mergers and Acquisitions from 2011 to October 2016. Served as RRD’s Vice President, Investor Relations from 2009 to 2011 and as RRD’s Vice President, Corporate Finance from 2008 to 2009. From 1992 to 2004 and then from 2005 to 2008, served in various capacities in financial management and financial planning & analysis for RRD.
Jennifer B. Reiners 56, General Counsel	2016	Served as RRD’s Senior Vice President, Deputy General Counsel from 2008 to October 2016 and as Vice President, Deputy General Counsel from 2005 to 2008. Prior to this, served in various capacities in the RRD legal department from 1997 to 2008.
Kami S. Turner 48, Controller and Chief Accounting Officer	2016	Served as RRD’s Assistant Controller from December 2012 to October 2016. Prior to this, served as RRD’s Vice President, External Reporting in 2012 and from 2009 to 2011 served in various capacities in finance at RRD.
Craig Clay 53, President Global Capital Markets	2021	Served as RRD’s Executive Vice President, Capital Markets and Global Sourcing from 2007 to 2016. Prior to this, served as RRD’s Senior Vice President of Global Capital Markets Sales and Service from 2005 to 2007, and from 1995 to 2005 served in various capacities in sales, pricing and finance for RRD.
Eric J. Johnson 55, President Global Investment Companies	2021	Served as RRD’s Executive Vice President, Global Investment Markets from 2010 to 2016. Prior to this, served as RRD’s Group Senior Vice President from 2006 to 2010, and from 1992 to 2006 served in various capacities in sales, pricing, financial management and financial planning and analysis for RRD.

ITEM 11. EXECUTIVE COMPENSATION

Information regarding executive and director compensation is incorporated by reference to the material under the captions “Compensation Discussion and Analysis,” “Human Resources Committee Report,” “Executive Compensation,” “Potential Payments Upon Termination or Change in Control,” and “Director Compensation” of the 2023 Proxy Statement.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

Information regarding security ownership of certain beneficial owners and management is incorporated herein by reference to the material under the heading “Stock Ownership” of the 2023 Proxy Statement.

Equity Compensation Plan Information

Information as of December 31, 2022 concerning compensation plans under which DFIN’s equity securities are authorized for issuance was as follows:

Equity Compensation Plan Information

<u>Plan Category</u>	Number of Securities to Be Issued upon Exercise of Outstanding Options, Restricted Stock Units, Warrants and Rights (in thousands) (1)	Weighted-Average Exercise Price of Outstanding Options, Warrants and Rights^(a) (2)	Number of Securities Remaining Available for Future Issuance under Equity Compensation Plans (b) (Excluding Securities Reflected in Column (1)) (in thousands) (3)
Equity compensation plans approved by security holders	2,632	\$ 18.19	3,476

(a) Restricted stock units were excluded when determining the weighted-average exercise price of outstanding options, warrants and rights.

(b) All of these shares are available for issuance under the Donnelley Financial Solutions Performance Incentive Plan. The Donnelley Financial Solutions Performance Incentive Plan allows grants in the form of cash or bonus awards, stock options, stock appreciation rights, restricted stock, stock units or combinations thereof. The maximum number of shares of common stock that may be granted with respect to bonus awards, including performance awards or fixed awards in the form of restricted stock or other form, is 10,295,000 in the aggregate, of which 3,476,311 remain available for issuance.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

Information regarding certain relationships and related transactions and director independence is incorporated herein by reference to the material under the heading “Certain Transactions,” “The Board’s Committees and Their Functions” and “Corporate Governance—Independence of Directors” of the 2023 Proxy Statement.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

Information regarding principal accounting fees and services is incorporated herein by reference to the material under the heading “The Company’s Independent Registered Public Accounting Firm” of the 2023 Proxy Statement.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) 1. Financial Statements

The financial statements listed in the accompanying index (page F-1) to the financial statements are filed as part of this Annual Report.

(b) Exhibits

The exhibits listed in the accompanying index (pages E-1 through E-4) are filed as part of this Annual Report.

(c) Financial Statement Schedules omitted

Certain schedules have been omitted because the required information is included in the audited Consolidated Financial Statements and Notes thereto or because they are not applicable or not required.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

ITEM 15(a). INDEX TO FINANCIAL STATEMENTS

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<u>Consolidated Statements of Comprehensive Income (Loss) for each of the three years ended December 31, 2022</u>	F-3
<u>Consolidated Balance Sheets as of December 31, 2022 and 2021</u>	F-4
<u>Consolidated Statements of Cash Flows for each of the three years ended December 31, 2022</u>	F-5
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Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Consolidated Statements of Operations
(in millions, except per share data)

	Year Ended December 31,		
	2022	2021	2020
Net sales			
Tech-enabled services	\$ 380.9	\$ 519.5	\$ 409.2
Software solutions	279.6	270.0	200.2
Print and distribution	173.1	203.8	285.1
Total net sales	833.6	993.3	894.5
Cost of sales ^(a)			
Tech-enabled services	141.1	162.3	176.1
Software solutions	113.4	105.3	93.9
Print and distribution	115.7	145.5	226.0
Total cost of sales	370.2	413.1	496.0
Selling, general and administrative expenses ^(a)	264.0	307.7	264.8
Depreciation and amortization	46.3	40.3	50.9
Restructuring, impairment and other charges, net	7.7	13.6	79.2
Other operating loss (income), net	0.4	(0.7)	—
Income from operations	145.0	219.3	3.6
Interest expense, net	9.2	26.6	22.8
Investment and other income, net	(3.5)	(5.1)	(1.7)
Earnings (loss) before income taxes	139.3	197.8	(17.5)
Income tax expense	36.8	51.9	8.4
Net earnings (loss)	\$ 102.5	\$ 145.9	\$ (25.9)
Net earnings (loss) per share:			
Basic	\$ 3.33	\$ 4.36	\$ (0.76)
Diluted	\$ 3.17	\$ 4.14	\$ (0.76)
Weighted-average number of common shares outstanding:			
Basic	30.8	33.5	33.9
Diluted	32.3	35.2	33.9

(a) Exclusive of depreciation and amortization

See Notes to the audited Consolidated Financial Statements

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Consolidated Statements of Comprehensive Income (Loss)
(in millions)

	Year Ended December 31,		
	2022	2021	2020
Net earnings (loss)	\$ 102.5	\$ 145.9	\$ (25.9)
Other comprehensive (loss) income, net of tax:			
Translation adjustments	(1.4)	(0.7)	0.5
Adjustment for net periodic pension and other postretirement benefits plans	(3.5)	3.2	3.3
Other comprehensive (loss) income, net of tax	(4.9)	2.5	3.8
Comprehensive income (loss)	\$ 97.6	\$ 148.4	\$ (22.1)

See Notes to the audited Consolidated Financial Statements

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Consolidated Balance Sheets
(in millions, except per share data)

	December 31,	
	2022	2021
ASSETS		
Cash and cash equivalents	\$ 34.2	\$ 54.5
Receivables, less allowances for expected losses of \$17.1 in 2022 (2021 - \$12.7)	163.5	199.1
Prepaid expenses and other current assets	28.1	23.5
Assets held for sale	2.6	2.6
Total current assets	228.4	279.7
Property, plant and equipment, net	17.6	18.7
Operating lease right-of-use assets	33.3	42.6
Software, net	75.6	63.7
Goodwill	405.8	410.0
Other intangible assets, net	7.8	8.7
Deferred income taxes, net	33.4	31.7
Other noncurrent assets	26.4	28.2
Total assets	\$ 828.3	\$ 883.3
LIABILITIES		
Accounts payable	\$ 49.2	\$ 36.3
Operating lease liabilities	16.3	17.9
Accrued liabilities	159.3	207.2
Total current liabilities	224.8	261.4
Long-term debt	169.2	124.0
Deferred compensation liabilities	13.6	19.8
Pension and other postretirement benefits plans liabilities	42.9	40.6
Noncurrent operating lease liabilities	28.4	39.4
Other noncurrent liabilities	19.9	21.1
Total liabilities	498.8	506.3
Commitments and Contingencies (Note 8)		
EQUITY		
Preferred stock, \$0.01 par value		
Authorized: 1.0 shares; Issued: None	—	—
Common stock, \$0.01 par value		
Authorized: 65.0 shares;		
Issued and Outstanding: 36.9 shares and 28.9 shares in 2022 (2021 - 35.9 shares and 33.0 shares)	0.4	0.4
Treasury stock, at cost: 8.0 shares in 2022 (2021 - 2.9 shares)	(221.8)	(57.1)
Additional paid-in capital	280.2	260.6
Retained earnings	353.9	251.4
Accumulated other comprehensive loss	(83.2)	(78.3)
Total equity	329.5	377.0
Total liabilities and equity	\$ 828.3	\$ 883.3

See Notes to the audited Consolidated Financial Statements

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Consolidated Statements of Cash Flows
(in millions)

	Year Ended December 31,		
	2022	2021	2020
OPERATING ACTIVITIES			
Net earnings (loss)	\$ 102.5	\$ 145.9	\$ (25.9)
Adjustments to reconcile net earnings (loss) to net cash provided by operating activities:			
Depreciation and amortization	46.3	40.3	50.9
Provision for expected losses on accounts receivable	8.4	2.8	3.8
Impairment charges	0.1	9.2	60.6
Share-based compensation	19.3	19.5	13.6
Non-cash loss (gain) on debt extinguishments	—	2.6	(2.3)
Deferred income taxes	(0.5)	(0.3)	(26.4)
Net pension plan income	(0.9)	(4.2)	(2.0)
Amortization of right-of-use assets	16.4	17.3	23.3
Other	1.8	0.8	1.1
Changes in operating assets and liabilities, net of acquisition:			
Accounts receivable, net	24.4	(28.8)	(14.8)
Prepaid expenses and other current assets	(3.2)	(6.2)	8.4
Accounts payable	12.1	(19.8)	(4.4)
Income taxes payable and receivable	(2.1)	(13.5)	12.3
Accrued liabilities and other	(53.9)	36.6	79.3
Operating lease liabilities	(18.9)	(20.8)	(22.2)
Pension and other postretirement benefits plans contributions	(1.6)	(1.4)	(1.1)
Net cash provided by operating activities	150.2	180.0	154.2
INVESTING ACTIVITIES			
Capital expenditures	(54.2)	(42.3)	(31.1)
Proceeds from sale of a business	3.3	—	—
Acquisitions, net of cash acquired	—	(3.6)	—
Purchase of investments	—	—	(1.2)
Proceeds from sale of investment	—	—	12.8
Other investing activities	—	0.9	(0.3)
Net cash used in investing activities	(50.9)	(45.0)	(19.8)
FINANCING ACTIVITIES			
Revolving facility borrowings	345.5	278.0	369.0
Payments on revolving facility borrowings	(300.5)	(278.0)	(369.0)
Proceeds from issuance of long-term debt	—	200.0	—
Payments on long-term debt	—	(312.8)	(63.8)
Debt issuance costs	—	(2.8)	—
Treasury share repurchases	(164.7)	(40.9)	(11.8)
Proceeds from exercise of stock options	0.4	2.3	—
Finance lease payments	(1.8)	(0.8)	—
Other financing activities	—	0.1	(1.9)
Net cash used in financing activities	(121.1)	(154.9)	(77.5)
Effect of exchange rate on cash and cash equivalents	1.5	0.8	(0.5)
Net (decrease) increase in cash and cash equivalents	(20.3)	(19.1)	56.4
Cash and cash equivalents at beginning of year	54.5	73.6	17.2
Cash and cash equivalents at end of period	<u>34.2</u>	<u>54.5</u>	<u>73.6</u>
Supplemental cash flow information:			
Income taxes paid (net of refunds)	\$ 38.4	\$ 65.0	\$ 21.7
Interest paid	\$ 7.6	\$ 21.8	\$ 24.5
Non-cash investing activities:			
Other investing activities	\$ —	\$ —	\$ 0.7
Conversion of note receivable to equity of investee	\$ —	\$ —	\$ (1.0)

See Notes to the audited Consolidated Financial Statements

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Consolidated Statements of Equity
(in millions)

	<u>Common Stock</u>		<u>Treasury Stock</u>		<u>Additional Paid-in Capital</u>	<u>Retained Earnings</u>	<u>Accumulated Other Comprehensive Loss</u>	<u>Total Equity</u>
	<u>Shares</u>	<u>Amount</u>	<u>Shares</u>	<u>Amount</u>				
Balance at December 31, 2019	34.5	\$ 0.3	0.3	\$ (4.2)	\$ 225.2	\$ 131.9	\$ (84.6)	\$ 268.6
Net loss	—	—	—	—	—	(25.9)	—	(25.9)
Other comprehensive income	—	—	—	—	—	—	3.8	3.8
Adoption of ASU 2016-13	—	—	—	—	—	(0.5)	—	(0.5)
Share-based compensation	—	—	—	—	13.6	—	—	13.6
Common stock repurchases	—	—	1.1	(10.3)	—	—	—	(10.3)
Issuance of share-based awards, net of withholdings and other	0.4	—	0.2	(1.5)	—	—	—	(1.5)
Balance at December 31, 2020	34.9	\$ 0.3	1.6	\$ (16.0)	\$ 238.8	\$ 105.5	\$ (80.8)	\$ 247.8
Net earnings	—	—	—	—	—	145.9	—	145.9
Other comprehensive income	—	—	—	—	—	—	2.5	2.5
Share-based compensation	—	—	—	—	19.5	—	—	19.5
Common stock repurchases	—	—	1.0	(32.4)	—	—	—	(32.4)
Issuance of share-based awards, net of withholdings and other	1.0	0.1	0.3	(8.7)	2.3	—	—	(6.3)
Balance at December 31, 2021	35.9	\$ 0.4	2.9	\$ (57.1)	\$ 260.6	\$ 251.4	\$ (78.3)	\$ 377.0
Net earnings	—	—	—	—	—	102.5	—	102.5
Other comprehensive loss	—	—	—	—	—	—	(4.9)	(4.9)
Share-based compensation	—	—	—	—	19.3	—	—	19.3
Common stock repurchases	—	—	4.7	(152.5)	—	—	—	(152.5)
Issuance of share-based awards, net of withholdings and other	1.0	—	0.4	(12.2)	0.3	—	—	(11.9)
Balance at December 31, 2022	36.9	\$ 0.4	8.0	\$ (221.8)	\$ 280.2	\$ 353.9	\$ (83.2)	\$ 329.5

See Notes to the audited Consolidated Financial Statements

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements
(in millions, except per share data, unless otherwise indicated)

Note 1. Overview, Basis of Presentation and Significant Accounting Policies

Description of Business

Donnelley Financial Solutions, Inc. and subsidiaries (“DFIN” or the “Company”) is a leading global risk and compliance solutions company. The Company provides regulatory filing and deal solutions via its software, technology-enabled services and print and distribution solutions to public and private companies, mutual funds and other regulated investment firms, to serve its clients’ regulatory and compliance needs. DFIN helps its clients comply with applicable regulations where and how they want to work in a digital world, providing numerous solutions tailored to each client’s precise needs. The prevailing trend is toward clients choosing to utilize the Company’s software solutions, in conjunction with its tech-enabled services, to meet their document and filing needs, while at the same time shifting away from physical print and distribution of documents, except for cases where it is still regulatorily required or requested by investors.

The Company serves its clients’ regulatory and compliance needs throughout their respective life cycles. For its capital markets clients, the Company offers solutions that allow public companies to comply with applicable U.S. Securities and Exchange Commission (“SEC”) regulations including filing agent services, digital document creation and online content management tools that support their corporate financial transactions and regulatory reporting; solutions to facilitate clients’ communications with their investors; and virtual data rooms and other deal management solutions. For investment companies, including mutual fund, insurance-investment and alternative investment companies, the Company provides solutions for creating, compiling and filing regulatory communications as well as solutions for investors designed to improve the access to and accuracy of their investment information.

Segments

The Company’s four operating and reportable segments are: Capital Markets – Software Solutions (“CM-SS”), Capital Markets – Compliance and Communications Management (“CM-CCM”), Investment Companies – Software Solutions (“IC-SS”) and Investment Companies – Compliance and Communications Management (“IC-CCM”). Corporate is not an operating segment and consists primarily of unallocated selling, general and administrative (“SG&A”) activities and associated expenses. See Note 15, *Segment Information*, for additional information.

Basis of Presentation

The consolidated financial statements include the accounts of DFIN and all majority-owned subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”) and in accordance with the rules and regulations of the SEC. All intercompany transactions have been eliminated in consolidation.

Significant Accounting Policies

Use of Estimates—The preparation of consolidated financial statements in conformity with GAAP requires the extensive use of management’s estimates and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes thereto. Actual results could differ from these estimates. Estimates are used when accounting for items and matters including, but not limited to, allowance for expected losses on accounts receivable, pension, goodwill and other intangible assets, asset valuations and useful lives, income taxes and other provisions and contingencies.

Foreign Operations—Assets and liabilities denominated in foreign currencies are translated into U.S. dollars at the exchange rates existing at the respective balance sheet dates. Income and expense items are translated at the average rates during the respective periods. Translation adjustments resulting from fluctuations in exchange rates are recorded as a separate component of other comprehensive income (loss) while transaction gains and losses are recorded in net earnings (loss). Deferred taxes are not provided on cumulative foreign currency translation adjustments when the Company expects foreign earnings to be indefinitely reinvested.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Fair Value Measurements—Certain assets and liabilities are required to be recorded at fair value on a recurring basis. Fair value is determined based on the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants. The Company records the fair value of its pension plan assets on a recurring basis. See Note 7, *Retirement Plans*, for the fair value of the Company’s pension plan assets as of December 31, 2022.

In addition to assets and liabilities that are recorded at fair value on a recurring basis, the Company is required to record certain assets and liabilities at fair value on a nonrecurring basis, generally as a result of acquisitions or the remeasurement of assets resulting in impairment charges. Assets measured at fair value on a nonrecurring basis include long-lived assets held and used, long-lived assets held for sale, goodwill and other intangible assets. The fair value of cash and cash equivalents, accounts receivable and accounts payable approximate their carrying values. The three-tier fair value hierarchy, which prioritizes valuation methodologies based on the reliability of the inputs, is as follows:

Level 1 — Valuations based on quoted prices for identical assets and liabilities in active markets.

Level 2 — Valuations based on observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets and liabilities in markets that are not active, or other inputs that are observable or can be corroborated by observable market data.

Level 3 — Valuations based on unobservable inputs reflecting the Company’s own assumptions, consistent with reasonably available assumptions made by other market participants.

Revenue Recognition—The Company manages highly-customized data and materials to enable filings with the SEC on behalf of its customers related to the Securities Exchange Act of 1934, as amended (the “Exchange Act”), the Securities Act of 1933, as amended (the “Securities Act”) and the Investment Company Act of 1940, as amended (the “Investment Company Act”), as well as performs eXtensible Business Reporting Language (“XBRL”) and other services. Clients are provided with SEC Electronic Data Gathering, Analysis, and Retrieval (“EDGAR”) filing services, XBRL compliance services and translation, editing, interpreting, proof-reading and multilingual typesetting services, among other services. The Company provides software solutions to public and private companies, mutual funds and other regulated investment firms to serve their regulatory and compliance needs, including Venue® Virtual Data Room (“Venue”), the Arc Suite® software platform (“Arc Suite”) and ActiveDisclosure®, among others, and provides digital document creation, online content management and print and distribution solutions.

The Company separately reports its net sales and related cost of sales for its software solutions, tech-enabled services and print and distribution offerings. The Company’s software solutions offerings include Venue, Arc Suite and ActiveDisclosure, among others. The Company’s tech-enabled services offerings consist of document composition, compliance-related EDGAR filing services and transaction solutions. The Company’s print and distribution offerings primarily consist of conventional and digital printed products and related shipping. Refer to Note 2, *Revenue*, for a discussion of the Company’s revenue recognition.

Cash and cash equivalents—The Company considers all highly liquid investments with original maturities of three months or less to be cash equivalents. Short-term securities consist of investment grade instruments of governments, financial institutions and corporations.

Receivables—Receivables are stated net of expected losses and primarily include trade receivables as well as miscellaneous receivables from suppliers. The Company’s credit loss reserves primarily relate to trade receivables, unbilled receivables and contract assets. The Company established the provision at differing rates, which are region or country-specific, and are based upon the age of the trade receivable, the Company’s historical collection experience in each region or country and lines of business, where appropriate. Provisions for unbilled receivables and contract assets are established based on rates which management believes to be appropriate considering its historical experience. Specific customer provisions are made when a review of significant outstanding amounts, utilizing information about customer creditworthiness and current economic trends, indicates that collection is doubtful. Provisions for accounts receivable, unbilled receivables and contract assets are included in receivables, less allowances for expected losses on the audited Consolidated Balance Sheets. No single customer comprised more than 10% of net sales for the years ended December 31, 2022, 2021 and 2020.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Allowances for Expected Losses—Transactions affecting the current expected credit loss (“CECL”) reserve during the years ended December 31, 2022, 2021 and 2020 were as follows:

	December 31,		
	2022	2021	2020
Balance, beginning of year	\$ 12.7	\$ 10.5	\$ 7.7
Provisions charged to expense	8.4	2.8	3.8
Write-offs, reclassifications and other	(4.0)	(0.6)	(1.5)
Adoption of ASU 2016-13 ^(a)	—	—	0.5
Balance, end of year ^(b)	<u>\$ 17.1</u>	<u>\$ 12.7</u>	<u>\$ 10.5</u>

- (a) On January 1, 2020, the Company adopted Accounting Standards Update (“ASU”) 2016-13, Financial Instruments - Credit Losses (Topic 326) Measurement of Credit Losses on Financial Instruments and recorded a \$0.5 million cumulative-effect adjustment to retained earnings.
- (b) As of December 31, 2022, the CECL reserve balance is comprised of a \$16.5 million provision for accounts receivable and a \$0.6 million provision for unbilled receivables and contract assets. As of December 31, 2021, the CECL reserve balance is comprised of a \$12.0 million provision for accounts receivable and a \$0.7 million provision for unbilled receivables and contract assets. As of December 31, 2020, the CECL reserve balance was comprised of a \$10.1 million provision for accounts receivable and a \$0.4 million provision for unbilled receivables and contract assets.

Inventories—Inventories include material, labor and factory overhead and are stated at the lower of cost or market, net of excess and obsolescence reserves for raw materials. Provisions for excess and obsolete inventories are made at differing rates, utilizing historical data and current economic trends, based upon the age and type of the inventory or based on specific identification of inventories that will not be utilized in production or sold. Inventory is valued using the First-In, First-Out (“FIFO”) method.

The components of the Company’s inventories at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Raw materials and manufacturing supplies	\$ 5.6	\$ 2.8
Work in process	2.3	2.8
Total	<u>\$ 7.9</u>	<u>\$ 5.6</u>

Prepaid Expenses—Prepaid expenses as of December 31, 2022 and 2021 were \$12.2 million and \$11.0 million, respectively.

Long-Lived Assets—The Company assesses potential impairments to its long-lived assets, including long-lived intangible assets, if events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. An impaired asset is written down to its estimated fair value based upon the most recent information available. Long-lived assets, other than goodwill, are recorded at the lower of the carrying value or the fair market value less the estimated cost to sell.

Property, Plant and Equipment, net—Property, plant and equipment are recorded at cost and depreciated on a straight-line basis over their estimated useful lives. Useful lives range from 5 to 40 years for buildings, the lesser of 7 years or the lease term for leasehold improvements and from 3 to 13 years for machinery and equipment. Maintenance and repair costs are charged to expense as incurred. Major overhauls that extend the useful lives of existing assets are capitalized. When property, plant or equipment is retired or disposed, the costs and accumulated depreciation are eliminated and the resulting profit or loss is recognized in the results of operations.

The components of the Company’s property, plant and equipment, net at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Land	\$ 0.3	\$ 0.3
Buildings	20.2	20.8
Machinery and equipment	66.8	68.5
	87.3	89.6
Less: Accumulated depreciation	(69.7)	(70.9)
Total	<u>\$ 17.6</u>	<u>\$ 18.7</u>

During the years ended December 31, 2022, 2021 and 2020, depreciation expense was \$7.1 million, \$6.4 million and \$8.1 million, respectively.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Assets Held for Sale—As of December 31, 2022 and 2021, the Company had land held for sale with a carrying value of \$2.6 million. In 2021, the Company entered into an agreement to sell the land, however, during the second quarter of 2022, the buyer terminated the agreement. On August 30, 2022, the Company entered into an agreement to sell the land for \$13.0 million. The closing of this transaction is subject to a due diligence period, a period to obtain needed entitlements and customary closing conditions and there is no assurance that the sale will be completed. The Company recorded a non-cash impairment charge of \$2.8 million during the year ended December 31, 2021 for the remaining carrying value of an office building located on the property as a result of its demolition. The impairment charge was recorded in restructuring, impairment and other charges, net in the audited Consolidated Statements of Operations in the CM-CCM segment.

Software, net—The Company incurs costs to develop its software-as-a-service applications as well as for internal-use. These costs include both direct costs from third-party vendors and eligible salaries and payroll-related costs of employees. The Company capitalizes software developments costs when management with the relevant authority authorizes and commits to the funding of the software project and it is probable that the project will be completed and the software will be used to perform the functions intended. Costs associated with upgrades and enhancements are capitalized only if such modifications result in additional functionality of the software, whereas costs incurred for preliminary project stage activities, training, project management and maintenance are expensed as incurred.

Capitalized software development costs are amortized over their estimated useful life using the straight-line method, up to a maximum of three years. Amortization expense related to internally-developed software, excluding amortization expense related to other intangible assets, was \$38.3 million, \$32.8 million and \$30.4 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Investments—The carrying value of the Company’s investments in equity securities was \$8.5 million and \$8.0 million at December 31, 2022 and 2021, respectively. The Company measures its equity securities that do not have a readily determinable fair value at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the same issuer. The Company performs an assessment on a quarterly basis to assess whether triggering events for impairment exist and to identify any observable price changes. During the years ended December 31, 2022 and 2021, the Company recorded net unrealized gains of \$0.5 million and \$0.4 million, respectively, resulting from observable price changes. These unrealized gains on equity securities were included in investment and other income, net in the audited Consolidated Statements of Operations.

In the fourth quarter of 2021, the Company recorded a non-cash impairment charge of \$5.9 million related to an investment in equity securities, which was included in restructuring, impairment and other charges, net in the audited Consolidated Statements of Operations. The remaining carrying value of the investment was \$5.1 million at December 31, 2022. Future changes in the estimated fair value could result in further impairment charges.

In the second quarter of 2020, the Company sold the remaining 50% of its holding of an investment and received proceeds of \$12.8 million, which approximated the carrying value of the investment.

Goodwill and Other Intangible Assets, net—Goodwill is either assigned to a specific reporting unit or, in certain circumstances, allocated between reporting units based on the relative fair value of each reporting unit.

Goodwill is reviewed for impairment annually as of October 31 or more frequently if events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is below its carrying amount. The Company also performs an interim review for indicators of impairment at each quarter-end to assess whether an interim impairment review is required for any reporting unit.

For the annual goodwill impairment review, the Company has the option to perform a qualitative test or a quantitative test. When a qualitative assessment is performed, the Company considers various qualitative factors, including economic conditions, industry and market considerations, cost factors, overall financial performance of the reporting unit and other entity and reporting unit specific events. Based on this qualitative analysis, if management determines that it is more likely than not that the fair value of the reporting unit is greater than its carrying value, no further impairment testing is performed.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

For reporting units where a quantitative method is used, the Company compares each reporting unit's fair value, estimated based on comparable company market valuations and expected future discounted cash flows to be generated by the reporting unit, to its carrying value. If the carrying value of the reporting unit is less than the fair value, no impairment exists. If the carrying value of a reporting unit exceeds the estimated fair value, an impairment loss is recognized, generally in an amount equal to that excess, limited to the total amount of goodwill allocated to that reporting unit.

As of October 31, 2022, each of the reporting units with goodwill was reviewed for impairment using a qualitative assessment and the Company concluded that it was not more likely than not that the fair values of the reporting units were less than their carrying values and therefore there was no impairment. The Company's assessment of goodwill impairment for the years ended December 31, 2022 and 2021 resulted in no impairment. The Company's assessment of goodwill impairment as of October 31, 2020, resulted in a \$40.6 million impairment of goodwill for the IC-CCM reporting unit. See Note 6, *Restructuring, Impairment and Other Charges, net*, for further discussion of the impairment.

Other long-lived intangible assets are recognized separately from goodwill and are amortized on a straight-line basis over their estimated useful lives. See Note 4, *Goodwill and Other Intangible Assets, net*, for further discussion of other intangible assets and the related amortization expense.

Share-Based Compensation—The Company recognizes share-based compensation expense based on estimated fair values for all share-based awards made to employees and directors, including non-qualified stock options (“stock options”), restricted stock units (“RSUs”) and performance share units (“PSUs”). Share-based compensation expense is recognized on a straight-line or graded basis, depending on the type of an award. Certain of the Company's awards vest on an annual basis whereas others cliff vest. See Note 12, *Share-based Compensation*, for further discussion.

Pension and Other Postretirement Benefits Plans—DFIN engages outside actuaries to assist in the determination of the obligations and costs under these plans, which were frozen to new participants effective December 31, 2011. The annual income and expense amounts relating to the pension and other postretirement benefits plans are based on calculations which include various actuarial assumptions including mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when it is deemed appropriate to do so. The effects of modifications on the value of plan obligations and assets are recognized immediately within other comprehensive income (loss) and amortized into earnings over future periods. The Company believes that the assumptions utilized in recording its obligations under its plans are reasonable based on its experience, market conditions and input from its actuaries and investment advisors. Refer to Note 7, *Retirement Plans*, for further discussion.

Income Taxes—Deferred taxes are provided using an asset and liability method whereby deferred tax assets are recognized for deductible temporary differences and operating loss carryforwards and deferred tax liabilities are recognized for taxable temporary differences. Temporary differences are the differences between the reported amounts of assets and liabilities and their tax basis. Deferred tax assets are reduced by a valuation allowance when, in the opinion of management, it is more likely than not that some portion or all of the deferred tax assets will not be realized. Deferred tax assets and liabilities are adjusted for the effects of changes in tax laws and rates on the date of enactment.

The Company maintains an income taxes payable or receivable account in each jurisdiction. The Company classifies interest expense and any related penalties related to income tax uncertainties as a component of income tax expense.

The Company is regularly audited by foreign and domestic tax authorities. These audits occasionally result in proposed assessments where the ultimate resolution might result in the Company owing additional taxes, including in some cases, penalties and interest. The Company recognizes a tax position in its financial statements when it is more likely than not (i.e., a likelihood of more than fifty percent) that the position would be sustained upon examination by tax authorities. This recognized tax position is then measured at the largest amount of benefit that is greater than fifty percent likely of being realized upon ultimate settlement. Although management believes that its estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in the Company's audited Consolidated Financial Statements. The Company adjusts such reserves upon changes in circumstances that would cause a change to the estimate of the ultimate liability, upon effective settlement or upon the expiration of the statute of limitations, in the period in which such event occurs. See Note 9, *Income Taxes*, for further discussion.

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN")
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Commitments and Contingencies—The Company is subject to lawsuits, investigations and other claims and can be involved in various legal, regulatory and arbitration proceedings concerning matters arising in the ordinary course of business, including those noted in Note 8, *Commitments and Contingencies*. The Company routinely reviews the status of each significant matter and assesses the potential financial exposure. A liability is recorded when it is probable that a loss has been incurred and the amount can be reasonably estimated. When there is a range of possible losses with equal likelihood, a liability is recorded based on the low end of such range. Because of uncertainties related to these and other matters, accruals are based on the best information available at the time. The amount of such reserves may change in the future due to new developments or changes in approach, such as a change in settlement strategy. The inherent uncertainty related to the outcome of these matters can result in amounts materially different from the amounts accrued in the Company's audited Consolidated Financial Statements.

Restructuring—The Company records restructuring charges associated with management-approved restructuring plans, which could include the elimination of job functions, closure or relocation of facilities, reorganization of operations, changes in management structure, workforce reductions or other actions. Restructuring charges may include ongoing and enhanced termination benefits related to employee separations, contract termination costs, and other related costs associated with exit or disposal activities. Severance benefits are provided to employees primarily under the Company's ongoing benefit arrangements. These severance costs are accrued once management commits to a plan of termination and it becomes probable that employees will be separated and entitled to benefits at amounts that can be reasonably estimated. In some instances, the Company enhances its ongoing termination benefits with one-time termination benefits and employee severance costs to be incurred in relation to these restructuring activities are recognized when employees are notified of their enhanced termination benefits. See Note 6, *Restructuring, Impairment and Other Charges, net*, for further discussion.

Accrued Liabilities—The components of the Company's accrued liabilities at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Accrued sales commissions	\$ 48.3	\$ 66.5
Contract liabilities	46.1	36.0
Accrued incentive compensation	22.7	61.2
Other employee-related liabilities	20.9	23.8
Other	21.3	19.7
Accrued liabilities	<u>\$ 159.3</u>	<u>\$ 207.2</u>

Contract liabilities consists of deferred revenue and progress billings. Other employee-related liabilities consists primarily of employee benefit and payroll accruals. Other accrued liabilities includes miscellaneous operating accruals, restructuring liabilities, interest liabilities, customer volume discount accruals and other tax liabilities.

Recently Issued Accounting Pronouncements

In October 2021, the FASB issued ASU No. 2021-08, "Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers" ("ASU 2021-08"), which requires that an entity recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, Revenue from Contracts with Customers ("Topic 606"), as if it had originated the contracts, rather than at fair value. The standard is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2022. The adoption of this standard is not expected to have a material impact on the Company's audited Consolidated Financial Statements.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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Note 2. Revenue

Revenue Recognition

As further described in Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*, the Company manages highly-customized data and materials to enable filings with the SEC on behalf of its customers as well as performs XBRL and other services. Clients are provided with EDGAR filing services, XBRL compliance services and translation, editing, interpreting, proof-reading and multilingual typesetting services, among other services. The Company provides software solutions to public and private companies, mutual funds and other regulated investment firms to serve their regulatory and compliance needs, including Venue, Arc Suite, ActiveDisclosure, among others, and provides digital document creation, online content management and print and distribution solutions.

Revenue is recognized upon transfer of control of promised services or products to customers in an amount that reflects the consideration to which the Company expects to be entitled in exchange for those services or products. The Company’s services include software solutions and tech-enabled services whereas the Company’s products are comprised of print and distribution offerings. The Company’s arrangements with customers often include promises to transfer multiple services or products to a customer. Determining whether services and products are considered distinct performance obligations that should be accounted for separately requires significant judgment. Certain customer arrangements have multiple performance obligations as certain promises are both capable of being distinct and are distinct within the context of the contract. Other customer arrangements have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts, and therefore is not distinct.

Revenue for the Company’s tech-enabled services, software solutions and print and distribution offerings is recognized either over time or at a point in time, as outlined below.

Over time

The Company recognizes revenue for certain services over time.

- The Company’s software solutions, including Venue, Arc Suite, ActiveDisclosure, among others, are generally provided on a subscription basis and allow customers access to use software over the contract period. As a result, software solutions revenue is predominantly recognized over time as the customer receives the benefit throughout the contract period. The timing of invoicing varies, however, the customer may be invoiced before the end of the contract period, resulting in a deferred revenue balance.

Point in time

Certain revenue arrangements, primarily for tech-enabled services and print and distribution offerings, are recognized at a point in time and are primarily invoiced upon completion of all services or upon shipment.

- Certain arrangements include multiple performance obligations and revenue is recognized upon completion of each performance obligation, such as when a document is filed with a regulatory agency and upon completion of printing the related document. For arrangements with multiple performance obligations, the transaction price is allocated to the separate performance obligations. When the Company provides customer specific solutions, observable standalone selling price is rarely available. As such, standalone selling price is determined using an estimate of the standalone selling price of each distinct service or product, taking into consideration historical selling price by customer for each distinct service or product, if available. These estimates may vary from the final amounts invoiced to the customer and are adjusted upon completion of all performance obligations. Customers may be invoiced subsequent to the recognition of revenue for completed performance obligations, resulting in contract asset balances.
- Revenue for arrangements without a regulatory filing generally have a single performance obligation. As the services and products provided are not distinct within the context of the contract, the revenue is recognized upon completion of the services performed or upon completion of printing of the related product.
- Warehousing, fulfillment services and shipping and handling are each separate performance obligations. As a result, when the Company provides warehousing and future fulfillment services, revenue for the composition services performed and printing of the product is recognized upon completion of the performance obligation(s), as control of the inventory has transferred to the customer and the inventory is being stored at the customer’s request.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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Because substantially all of the Company’s products are customized, product returns are not significant; however, the Company accrues for the estimated amount of customer credits at the time of sale.

The Company records deferred revenue when amounts are invoiced but the revenue recognition criteria are not yet met. Revenue is recognized when all criteria are subsequently met.

Certain revenues earned by the Company require significant judgment to determine if revenue should be recorded gross, as a principal, or net of related costs, as an agent. Billings for shipping and handling costs as well as certain postage costs, and out-of-pocket expenses are recorded gross. Revenue is not recognized for customer-supplied postage. Paper may be supplied directly by customers or may be purchased by the Company from third parties and sold to customers. Revenue is not recognized for customer-supplied paper; however, revenues for Company-supplied paper are recognized on a gross basis. Revenue is recognized net of any taxes collected from customers, which are subsequently remitted to authorities.

Incremental costs to obtain the contract, primarily commissions, are expensed as incurred when the amortization period of the asset is one year or less. Sales commissions for the initial year of a multi-year contract are capitalized and amortized on a straight-line basis over the initial term of the contract. Sales commissions beyond the initial year are subject to an employee service requirement and are not capitalized as they are not considered incremental costs to obtain a contract.

Disaggregation of Revenue

The following table disaggregates revenue between tech-enabled services, software solutions and print and distribution by reportable segment for the years ended December 31, 2022, 2021 and 2020:

	2022				2021				2020			
	Tech-enabled Services	Software Solutions	Print and Distribution	Total	Tech-enabled Services	Software Solutions	Print and Distribution	Total	Tech-enabled Services	Software Solutions	Print and Distribution	Total
Capital Markets - Software Solutions	\$ —	\$ 180.2	\$ —	\$ 180.2	\$ —	\$ 181.0	\$ —	\$ 181.0	\$ —	\$ 133.2	\$ —	\$ 133.2
Capital Markets - Compliance and Communications Management	305.1	—	105.2	410.3	443.1	—	118.4	561.5	314.4	—	109.6	424.0
Investment Companies - Software Solutions	—	99.4	—	99.4	—	89.0	—	89.0	—	67.0	—	67.0
Investment Companies - Compliance and Communications Management	75.8	—	67.9	143.7	76.4	—	85.4	161.8	94.8	—	175.5	270.3
Total net sales	\$ 380.9	\$ 279.6	\$ 173.1	\$ 833.6	\$ 519.5	\$ 270.0	\$ 203.8	\$ 993.3	\$ 409.2	\$ 200.2	\$ 285.1	\$ 894.5

Unbilled Receivables and Contract Balances

The timing of revenue recognition may differ from the timing of invoicing to customers and these timing differences result in contract assets, unbilled receivables or contract liabilities. Contract assets represent revenue recognized for performance obligations completed before an unconditional right to payment exists and therefore invoicing has not yet occurred. The Company generally estimates contract assets based on the historical selling price adjusted for its current experience and expected resolution of the variable consideration of the completed performance obligation. When the Company's contracts contain variable consideration, the variable consideration is recognized only to the extent that it is probable that a significant revenue reversal will not occur in a future period. As a result, the estimated revenue and contract assets may be constrained until the uncertainty associated with the variable consideration is resolved, which generally occurs in less than one year. Determining whether there will be a significant revenue reversal in the future and the determination of the amount of the constraint requires significant judgment.

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN")
Notes to the audited Consolidated Financial Statements (continued)
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Contract assets were \$20.1 million and \$24.9 million at December 31, 2022 and 2021, respectively. Generally, the contract assets balance is impacted by the recognition of additional revenue, amounts invoiced to customers and changes in the level of constraint applied to variable consideration. Amounts recognized as revenue exceeded the estimates for performance obligations satisfied in previous periods by approximately \$19.3 million and \$29.5 million for the years ended December 31, 2022 and 2021, respectively, primarily due to changes in the Company's estimate of variable consideration and the application of the constraint.

Unbilled receivables are recorded when there is an unconditional right to payment and invoicing has not yet occurred. The Company estimates the value of unbilled receivables based on a combination of historical customer selling price and management's assessment of realizable selling price. Unbilled receivables were \$33.2 million and \$46.7 million at December 31, 2022 and 2021, respectively. Unbilled receivables and contract assets are included in accounts receivable on the audited Consolidated Balance Sheets.

Most of the Company's contracts with significant remaining performance obligations have an initial expected duration of one year or less. As of December 31, 2022, the future estimated revenue related to unsatisfied or partially satisfied performance obligations under contracts with an original contractual term in excess of one year was approximately \$128.6 million, of which approximately 43% is expected to be recognized as revenue over the succeeding twelve months, and the remainder recognized thereafter.

Contract liabilities consist of deferred revenue and progress billings, which are included in accrued liabilities on the audited Consolidated Balance Sheets. The Company recognized \$33.2 million and \$20.4 million of revenue during the years ended December 31, 2022 and 2021, respectively, that was included in the deferred revenue balances at the beginning of the respective periods. Changes in contract liabilities were as follows:

Balance at January 1, 2022	\$	36.0
Deferral of revenue		156.3
Revenue recognized		(146.2)
Balance at December 31, 2022	\$	<u>46.1</u>
Balance at January 1, 2021	\$	21.7
Deferral of revenue		138.5
Revenue recognized		(124.2)
Balance at December 31, 2021	\$	<u>36.0</u>

Note 3. Acquisition and Disposition

Acquisition

On December 13, 2021, the Company completed the acquisition of Guardum, a leading data security and privacy software provider that helps companies locate, secure and control data. The acquisition enhances the Company's Venue offering. By safeguarding privacy and improving data accuracy, Guardum's data security is a competitive differentiator. Prior to the acquisition, the Company held a 33.0% investment in Guardum. The purchase price for the remaining equity of Guardum was \$3.6 million, net of cash acquired of \$0.1 million. As substantially all of the fair value of the assets acquired was concentrated in the software, the acquisition was accounted for as an asset acquisition and is included within the CM-SS operating segment.

Disposition

The Company's disposition of the EdgarOnline ("EOL") business closed on November 9, 2022, and the Company received net cash proceeds of \$3.3 million, resulting in a loss of \$0.7 million, which was recognized in other operating loss (income), net in the audited Consolidated Statements of Operations for the year ended December 31, 2022. The operating results of EOL prior to the disposition, as well as the loss on sale, are included within the CM-SS operating segment.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
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Note 4. Goodwill and Other Intangible Assets, net

Goodwill—The goodwill balances by reportable segment were as follows:

	Gross book value at December 31, 2021	Accumulated impairment charges at December 31, 2021	Net book value at December 31, 2021	Disposition ^(a)	Foreign exchange and other adjustments	Net book value at December 31, 2022
Capital Markets - Software Solutions	\$ 103.7	\$ —	\$ 103.7	\$ (3.5)	\$ (0.1)	\$ 100.1
Capital Markets - Compliance and Communications Management	253.1	—	253.1	—	(0.4)	252.7
Investment Companies - Software Solutions	53.2	—	53.2	—	(0.2)	53.0
Investment Companies - Compliance and Communications Management	40.6	(40.6)	—	—	—	—
Total	\$ 450.6	\$ (40.6)	\$ 410.0	\$ (3.5)	\$ (0.7)	\$ 405.8

(a) \$3.5 million of CM-SS goodwill was attributed to EOL and included in the disposition in the fourth quarter of 2022.

In the fourth quarter of 2020, the Company recorded a non-cash impairment charge of \$40.6 million to reflect a full impairment of goodwill within the IC-CCM reporting unit. Refer to Note 6, *Restructuring, Impairment and Other Charges, net*, for further discussion.

Other Intangible Assets, net—The components of other intangible assets at December 31, 2022 and 2021 were as follows:

	December 31, 2022			December 31, 2021		
	Gross Carrying Amount	Accumulated Amortization	Net Book Value	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Customer relationships (useful life of 15 years)	\$ 10.4	\$ (2.8)	\$ 7.6	\$ 10.4	\$ (2.1)	\$ 8.3
Trade names (useful life of 5 years)	1.0	(0.8)	0.2	1.0	(0.6)	0.4
Total other intangible assets	\$ 11.4	\$ (3.6)	\$ 7.8	\$ 11.4	\$ (2.7)	\$ 8.7

Amortization expense for other intangible assets was \$0.9 million, \$1.1 million and \$12.4 million for the years ended December 31, 2022, 2021 and 2020, respectively. The weighted-average remaining useful life for the unamortized intangible assets as of December 31, 2022 is approximately eleven years.

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN")
Notes to the audited Consolidated Financial Statements (continued)
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The following table outlines the estimated annual amortization expense related to other intangible assets:

<u>For the Year Ending December 31,</u>	<u>Amount</u>
2023	\$ 0.9
2024	0.7
2025	0.7
2026	0.7
2027	0.7
2028 and thereafter	4.1
Total	\$ 7.8

Note 5. Leases

The Company determines if an arrangement is a lease at inception. The Company must consider whether the contract conveys the right to control the use of an identified asset. Certain arrangements require significant judgment to determine if an asset is specified in the contract and if the Company directs how and for what purpose the asset is used during the term of the contract.

The Company has operating leases for certain service centers, office space, warehouses and equipment. Operating lease right-of-use ("ROU") assets and operating lease liabilities are recognized based on the present value of future minimum lease payments over the lease term at commencement date. Operating lease expense is recognized on a straight-line basis over the expected lease term. The Company's incremental borrowing rate is used in determining the present value of future payments at the commencement date of the lease. Balances related to operating leases are included in operating lease ROU assets, operating lease liabilities and noncurrent operating lease liabilities on the audited Consolidated Balance Sheets.

The Company has finance leases primarily related to certain IT equipment. For finance leases, interest expense on the lease liability is recognized based on the incremental borrowing rate and the ROU assets are amortized on a straight-line basis over the shorter of the lease term or the useful life of the ROU assets. Balances related to finance leases are included in property, plant and equipment, net, accrued liabilities and other noncurrent liabilities on the audited Consolidated Balance Sheets.

The Company's original lease terms generally range from one year to thirty-five years. The remaining terms of the Company's leases range from less than a year to seven years. All real estate leases are recorded on the audited Consolidated Balance Sheets. Equipment and other non-real estate leases with an initial term of twelve months or less are not recorded on the audited Consolidated Balance Sheets. Lease agreements for some locations provide for rent escalations and renewal options. Lease terms include the option to extend or terminate the lease when it is reasonably certain that the Company will exercise that option. Certain real estate leases require payment for taxes, insurance and maintenance which are considered non-lease components. The Company accounts for real estate leases and the related fixed non-lease components together as a single component.

The Company has non-cancelable sublease rental arrangements which did not reduce the future maturities of the operating lease liabilities at December 31, 2022 and 2021. The Company's future rental commitments for leases with subleases were approximately \$13.2 million and \$17.3 million for the years ended December 31, 2022 and 2021, respectively. The Company remains secondarily liable under these leases in the event that the sub-lessee defaults under the sublease terms. The Company does not believe that material payments will be required as a result of the secondary liability provisions of the primary lease agreements.

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Notes to the audited Consolidated Financial Statements (continued)
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The components of lease expense for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Year Ended December 31,		
	2022	2021	2020
Operating lease expense:			
Operating lease expense	\$ 17.8	\$ 19.2	\$ 26.6
Sublease income	(4.4)	(4.3)	(4.5)
Net operating lease expense	<u>\$ 13.4</u>	<u>\$ 14.9</u>	<u>\$ 22.1</u>
Finance lease expense:			
Amortization of ROU assets	\$ 1.8	\$ 0.8	\$ —
Interest on lease liabilities	0.2	0.1	—
Total finance lease expense	<u>\$ 2.0</u>	<u>\$ 0.9</u>	<u>\$ —</u>

The Company’s finance lease liabilities as of December 31, 2022 and 2021 are presented within the Company’s audited Consolidated Balance Sheets as follows:

	December 31,	
	2022	2021
Property, plant and equipment, net	\$ 7.1	\$ 7.5
Accrued liabilities	\$ 2.0	\$ 1.6
Other noncurrent liabilities	5.1	5.9
Total	<u>\$ 7.1</u>	<u>\$ 7.5</u>

Other information related to operating and finance leases for the years ended December 31, 2022, 2021 and 2020 and as of December 31, 2022 and 2021 was as follows:

	Year Ended December 31,		
	2022	2021	2020
Supplemental cash flow information:			
Cash paid related to operating leases	\$ 20.9	\$ 23.2	\$ 25.5
Cash paid related to finance leases	1.8	0.8	—
Non-cash disclosure:			
Increase in operating lease liabilities due to new ROU assets	\$ —	\$ 4.2	\$ 6.0
Increase in operating lease liabilities due to lease modifications and remeasurements	7.1	3.2	6.0
Increase in finance lease liabilities due to new ROU assets	1.4	8.3	—
	December 31,		
	2022	2021	
Weighted-average remaining lease term:			
Operating leases		3.2 years	4.0 years
Finance leases		3.4 years	4.4 years
Weighted-average discount rate:			
Operating leases		3.6%	3.8%
Finance leases		2.5%	2.3%

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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As of December 31, 2022, future maturities of lease liabilities were as follows:

	Operating Leases	Finance Leases
2023	\$ 17.6	\$ 2.2
2024	14.8	2.2
2025	9.5	2.0
2026	3.4	1.0
2027	0.7	—
2028 and thereafter	1.4	—
Total lease payments	47.4	7.4
Less: Interest	(2.7)	(0.3)
Present value of lease liabilities	\$ 44.7	\$ 7.1

During the years ended December 31, 2022, 2021 and 2020, the Company recorded impairment charges of \$0.1 million, \$0.5 million and \$18.2 million, respectively, on operating lease ROU assets, as further described in Note 6, *Restructuring, Impairment and Other Charges, net*. The Company also recorded charges of \$0.8 million and \$2.2 million for acceleration of rent expense associated with abandoned leases during the years ended December 31, 2022 and 2020, respectively. Acceleration of rent expense charges were recorded in either cost of sales or SG&A in the Company’s audited Consolidated Statements of Operations, depending on the nature of the property.

Note 6. Restructuring, Impairment and Other Charges, net

Restructuring, Impairment and Other Charges, net recognized in Results of Operations

For the year ended December 31, 2022, the Company recorded the following restructuring, impairment and other charges, net by reportable segment:

	Employee Terminations	Other Restructuring Charges	Impairment Charges	Other Charges	Total
<i>Year Ended December 31, 2022</i>					
Capital Markets - Software Solutions	\$ 1.5	\$ —	\$ —	\$ —	\$ 1.5
Capital Markets - Compliance and Communications Management	3.5	—	—	0.2	3.7
Investment Companies - Software Solutions	0.5	—	—	—	0.5
Investment Companies - Compliance and Communications Management	1.0	0.4	—	—	1.4
Corporate	0.3	—	0.1	0.2	0.6
Total	\$ 6.8	\$ 0.4	\$ 0.1	\$ 0.4	\$ 7.7

For the year ended December 31, 2022, the Company recorded net restructuring charges of \$6.8 million related to employee termination costs for approximately 130 employees, substantially all of whom were terminated as of December 31, 2022. The restructuring actions were primarily related to the reorganization of certain capital markets operations and the relocation of a digital print facility.

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For the year ended December 31, 2021, the Company recorded the following restructuring, impairment and other charges, net by reportable segment:

	Employee Terminations	Other Restructuring Charges	Impairment Charges	Other Charges	Total
<i>Year Ended December 31, 2021</i>					
Capital Markets - Software Solutions	\$ 0.4	\$ —	\$ —	\$ —	\$ 0.4
Capital Markets - Compliance and Communications Management	0.5	—	2.8	0.2	3.5
Investment Companies - Software Solutions	0.1	—	—	—	0.1
Investment Companies - Compliance and Communications Management	2.1	0.8	—	—	2.9
Corporate	0.3	—	6.4	—	6.7
Total	\$ 3.4	\$ 0.8	\$ 9.2	\$ 0.2	\$ 13.6

For the year ended December 31, 2021, the Company recorded net restructuring charges of \$3.4 million related to employee termination costs for approximately 175 employees, substantially all of whom were terminated as of December 31, 2021. The restructuring actions were primarily the result of the implementation of SEC Rule 30e-3 and amendments to SEC Rule 498A.

For the year ended December 31, 2021, the Company recorded \$9.2 million of impairment charges, primarily related to a partial impairment of an investment in equity securities and the demolition of an office building, as further described in Note 1, *Overview, Basis of Presentation and Significant Accounting Policies*.

For the year ended December 31, 2020, the Company recorded the following restructuring, impairment and other charges, net by reportable segment:

	Employee Terminations	Impairment Charges	Other Charges	Total
<i>Year Ended December 31, 2020</i>				
Capital Markets - Software Solutions	\$ 1.0	\$ —	\$ —	\$ 1.0
Capital Markets - Compliance and Communications Management	5.8	16.1	0.3	22.2
Investment Companies - Software Solutions	0.4	2.6	—	3.0
Investment Companies - Compliance and Communications Management	5.6	40.6	—	46.2
Corporate	2.8	1.3	2.7	6.8
Total	\$ 15.6	\$ 60.6	\$ 3.0	\$ 79.2

For the year ended December 31, 2020, the Company recorded net restructuring charges of \$15.6 million related to employee termination costs for approximately 470 employees, substantially all of whom were terminated as of December 31, 2020. The restructuring actions were the result of the implementation of SEC Rule 30e-3 and amendments to SEC Rule 498A, both of which significantly reduced print volumes beginning January 1, 2021, and the reorganization of certain capital markets operations and selling and administrative functions.

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As a result of the Company’s annual goodwill impairment test in the fourth quarter of 2020, the Company recorded a \$40.6 million non-cash charge during the year ended December 31, 2020 to recognize the impairment of goodwill in the IC-CCM reporting unit. The goodwill impairment charge resulted from a reduction in the estimated fair value of the IC-CCM reporting unit due to lower expectations for future sales and profitability, primarily driven by an increase in the estimated shift of future revenues from IC-CCM to software solutions. The goodwill impairment charge was determined using Level 3 inputs, including a discounted cash flow analysis, comparable marketplace fair value data and management’s assumptions.

In addition, the Company abandoned certain operating leases during the year ended December 31, 2020 with the intent to sublease. As the fair value of the ROU assets was less than the carrying value, the Company recognized impairments of ROU assets of \$18.2 million during the year ended December 31, 2020, reducing the carrying value of the ROU assets to an estimated combined fair value of \$0.3 million subsequent to the impairments. The fair value of these assets was estimated utilizing inputs from market comparables in order to estimate future cash flows expected from sublease income over the remaining lease terms. Future changes in the estimated amount or timing of sublease arrangements could result in further impairment charges. For the year ended December 31, 2020, the Company recorded \$1.8 million of net impairment charges related to certain software assets.

For the year ended December 31, 2020, the Company also incurred \$3.0 million of other charges, primarily related to the realignment of the Company’s operating segments in 2020.

Restructuring Reserve – Employee Terminations

The Company’s employee terminations liability is included in accrued liabilities in the Company’s audited Consolidated Balance Sheets. The other restructuring reserves as of December 31, 2022 and 2021 were not material.

Changes in the accrual for employee terminations during the years ended December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Balance, beginning of year	\$ 2.4	\$ 8.5
Restructuring charges	7.1	3.4
Reversals of restructuring charges	(0.3)	—
Cash paid	(4.1)	(9.5)
Balance, end of year	<u>\$ 5.1</u>	<u>\$ 2.4</u>

Note 7. Retirement Plans

The Company’s primary defined benefit plan was frozen effective December 31, 2011. No new employees are permitted to enter the Company’s frozen plan and participants will earn no additional benefits. Benefits are generally based upon years of service and compensation. The defined benefit retirement income plans are funded in conformity with the applicable government regulations. The Company funds at least the minimum amount required for all funded plans using actuarial cost methods and assumptions acceptable under government regulations.

The annual income and expense amounts relating to the pension plan are based on calculations, which include various actuarial assumptions including mortality expectations, discount rates and expected long-term rates of return. The Company reviews its actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring remeasurement occurs, such as a settlement) and modifies the assumptions based on current rates and trends when it is appropriate to do so. The effects of modifications are recognized immediately on the audited Consolidated Balance Sheets, but are amortized into operating earnings over future periods, with the deferred amount recorded in accumulated other comprehensive loss. During the year ended December 31, 2022, the Company used the Society of Actuaries Pri-2012 base rate mortality table and MP-2021 mortality improvement projection scale in the calculation of the Company’s U.S. pension plan obligations.

The pension plan obligations are calculated using generally accepted actuarial methods and are measured as of December 31. Actuarial gains and losses for frozen plans are amortized using the corridor method over the average remaining expected life of plan participants.

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The Company made cash contributions of \$1.4 million and \$0.2 million to its pension and other postretirement benefits plans, respectively, during the year ended December 31, 2022. In 2023, the Company expects to make cash contributions of approximately \$1.8 million and \$0.1 million to its pension and other postretirement benefits plans, respectively.

Total pension income was \$0.9 million, \$4.2 million and \$2.0 million for the years ended December 31, 2022, 2021 and 2020, respectively, which is included within investment and other income, net in the audited Consolidated Statements of Operations. The components of the estimated net pension plan income for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Year Ended December 31,		
	2022	2021	2020
Interest cost	\$ 7.4	\$ 6.2	\$ 8.8
Expected return on assets	(11.6)	(14.2)	(13.9)
Amortization, net	3.3	3.8	3.1
Net pension plan income	<u>\$ (0.9)</u>	<u>\$ (4.2)</u>	<u>\$ (2.0)</u>
Weighted-average assumption used to calculate net pension plan income:			
Discount rate	2.9%	2.6%	3.2%
Expected return on plan assets	4.8%	6.0%	6.0%

Reconciliation of funded status

	Pension Benefits		Other Postretirement Benefits	
	2022	2021	2022	2021
Benefit obligation at beginning of year	\$ 314.0	\$ 325.6	\$ 1.6	\$ 1.8
Interest cost	7.4	6.2	—	—
Actuarial gain	(67.0)	(0.4)	(0.2)	—
Benefits paid	(17.3)	(17.4)	(0.2)	(0.2)
Benefit obligation at end of year ^(a)	<u>\$ 237.1</u>	<u>\$ 314.0</u>	<u>\$ 1.2</u>	<u>\$ 1.6</u>
Fair value of plan assets at beginning of year	\$ 273.1	\$ 274.9	\$ —	\$ —
Actual return on assets	(63.7)	14.4	—	—
Employer contributions	1.4	1.2	0.2	0.2
Benefits paid	(17.3)	(17.4)	(0.2)	(0.2)
Fair value of plan assets at end of year	<u>\$ 193.5</u>	<u>\$ 273.1</u>	<u>\$ —</u>	<u>\$ —</u>
Under funded status at end of year	<u>\$ (43.6)</u>	<u>\$ (40.9)</u>	<u>\$ (1.2)</u>	<u>\$ (1.6)</u>

(a) As the Company’s defined benefit plan is frozen and participants do not earn additional service benefits, the projected benefit obligation and accumulated benefit obligation are the same.

The decrease in benefit obligation during the year ended December 31, 2022 was primarily from a higher actuarial gain due to the increasing interest rate environment during the year ended December 31, 2022, partially offset by interest costs.

The accumulated benefit obligation for all defined benefit pension and other postretirement benefits plans was \$238.3 million and \$315.6 million at December 31, 2022 and 2021, respectively. The underfunded pension and other postretirement plans liabilities are presented within the Company’s audited Consolidated Balance Sheets as follows:

	Pension Benefits		Other Postretirement Benefits	
	December 31,		December 31,	
	2022	2021	2022	2021
Accrued benefit cost (included in accrued liabilities)	\$ (1.8)	\$ (1.8)	\$ (0.1)	\$ (0.1)
Pension and other postretirement benefits plans liabilities	(41.8)	(39.1)	(1.1)	(1.5)
Net liabilities	<u>\$ (43.6)</u>	<u>\$ (40.9)</u>	<u>\$ (1.2)</u>	<u>\$ (1.6)</u>

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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The amounts included in accumulated other comprehensive loss in the audited Consolidated Balance Sheets, excluding tax effects, that have not been recognized as components of net periodic benefit cost at December 31, 2022 and 2021 were as follows:

	Pension Benefits		Other Postretirement Benefits	
	December 31,		December 31,	
	2022	2021	2022	2021
Accumulated other comprehensive loss:				
Net actuarial loss	\$ (92.7)	\$ (87.6)	\$ (0.3)	\$ (0.6)

The pre-tax amounts recognized in other comprehensive (loss) income during the years ended December 31, 2022, 2021 and 2020 were as follows:

	Pension Benefits			Other Postretirement Benefits		
	Year Ended December 31,			Year Ended December 31,		
	2022	2021	2020	2022	2021	2020
Amortization of:						
Net actuarial loss	\$ 3.3	\$ 3.7	\$ 3.1	\$ —	\$ 0.1	\$ —
Amounts arising during the period:						
Net actuarial (loss) gain	(8.4)	0.6	1.7	0.3	—	(0.2)
Total (loss) gain	<u>\$ (5.1)</u>	<u>\$ 4.3</u>	<u>\$ 4.8</u>	<u>\$ 0.3</u>	<u>\$ 0.1</u>	<u>\$ (0.2)</u>

Actuarial gains and losses in excess of 10.0% of the greater of the projected benefit obligation or the market-related value of plan assets were recognized as a component of net pension plan income over the average remaining service period of the plan’s active employees. As a result of the plan being frozen, the actuarial gains and losses are recognized as a component of net pension plan income over the average remaining expected life of plan participants.

The weighted average assumptions used to determine the benefit obligation at December 31, 2022 and 2021 were as follows:

	Pension Benefits		Other Postretirement Benefits	
	December 31,		December 31,	
	2022	2021	2022	2021
Discount rate	5.2 %	2.9 %	5.2 %	2.7 %
Interest crediting rate	3.6 %	2.4 %	N/A	N/A

Benefit payments are expected to be paid as follows:

	Pension Benefits	Other Postretirement Benefits
2023	\$ 17.9	\$ 0.1
2024	18.5	0.1
2025	18.0	0.1
2026	18.7	0.1
2027	17.6	0.1
2028-2032	86.4	0.5

Plan Assets

The Company’s U.S. pension plans are frozen and the Company has a risk management approach for its U.S. pension plan assets. The overall investment objective of this approach is to reduce the risk of significant decreases in the plan’s funded status by allocating a larger portion of the plan’s assets to investments expected to hedge the impact of interest rate risks on the plan’s obligation. The expected long-term rate of return for plan assets is based upon many factors including asset allocations, historical asset returns, current and expected future market conditions, risk and active management premiums. The target asset allocation percentage as of December 31, 2022, for the primary U.S. pension plan was approximately 60% for fixed income investments and approximately 40% for return seeking investments.

Donnelley Financial Solutions, Inc. and Subsidiaries ("DFIN")
Notes to the audited Consolidated Financial Statements (continued)
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The fair values of the Company's pension plan assets at December 31, 2022 and 2021, by asset category, were as follows:

	December 31, 2022		
	Total	Level 1	Level 2
Asset Category:			
Cash and Cash Equivalents	\$ 2.8	\$ —	\$ 2.8
Fixed Income	15.7	—	15.7
Assets Measured at NAV	175.0	—	—
Total	<u>\$ 193.5</u>	<u>\$ —</u>	<u>\$ 18.5</u>
	December 31, 2021		
	Total	Level 1	Level 2
Asset Category:			
Cash and Cash Equivalents	\$ 2.8	\$ 1.5	\$ 1.3
Fixed Income	25.6	—	25.6
Assets Measured at NAV	244.7	—	—
Total	<u>\$ 273.1</u>	<u>\$ 1.5</u>	<u>\$ 26.9</u>

The Company segregated its plan assets by the following major categories and levels for determining their fair value as of December 31, 2022 and 2021:

Cash and cash equivalents— Carrying value approximates fair value. As such, these assets were classified as Level 1. The Company also invests in certain short-term investments which are valued using the amortized cost method. As such, these assets were classified as Level 2.

Fixed Income— Fixed income securities are primarily in a diversified portfolio of long duration governmental instruments. They are primarily valued using a market approach, using matrix pricing and considering a security's relationship to other securities for which quoted prices in an active market may be available. Inputs used in developing fair value estimates include reported trades, broker quotes, benchmarks, and spreads. As the value of these assets was determined based on observable inputs obtained by third parties, the Company classified these assets as Level 2.

Assets measured at NAV— The Company invests in certain funds that are valued at calculated net asset value per share ("NAV"), but are not quoted on active markets such as certain equity common funds, fixed income funds, hedge funds and corporate bond funds. The Company believes that the NAV is representative of fair value at the reporting date, as there are no significant restrictions on redemption of these investments or other reasons to indicate that the investment would be redeemed at an amount different than the NAV.

For Level 2 plan assets, management reviews significant investments on a quarterly basis including investigation of unusual fluctuations in price or returns and obtaining an understanding of the pricing methodology to assess the reliability of third-party pricing estimates.

The valuation methodologies described above may generate a fair value calculation that may not be indicative of net realizable value or future fair values. While the Company believes the methodologies used are appropriate, the use of different methodologies or assumptions in calculating fair value could result in different amounts.

Employer 401(k) Savings Plan — For the benefit of most of its U.S. employees, the Company maintains a defined contribution retirement savings plan ("401(k)") that is intended to be qualified under Section 401(a) of the Internal Revenue Code. Under this plan, employees may contribute a percentage of eligible compensation on both a before-tax and after-tax basis and, starting in 2022, the Company provides for a matching contribution of \$0.50 for every dollar an employee contributes up to 6% of eligible compensation. The Company can contribute a discretionary match, based on the Company's performance. The Company did not provide a 401(k) discretionary match to participants in 2022, but provided a 401(k) discretionary match in 2021 and 2020, payable to participants' accounts in the first quarter of the respective following year. Expense for the Company's 401(k) matching contributions was \$5.6 million, \$17.3 million and \$5.3 million for the years ended December 31, 2022, 2021 and 2020, respectively.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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Multiemployer Pension Plans — On October 1, 2016, DFIN became an independent publicly traded company through the distribution by R.R. Donnelley & Sons Company (“RRD”) of shares of DFIN common stock to RRD stockholders (the “Separation”). On April 13, 2020, LSC Communications, Inc. (“LSC”), RRD publishing and retail-centric print services and office products business which separated from RRD at the same time as DFIN, announced that it voluntarily filed for business reorganization under Chapter 11 of the U.S. Bankruptcy Code (“LSC Chapter 11 Filing”) and stopped making required withdrawal liability payments to multiemployer pension plans (“MEPP”) from which RRD had withdrawn prior to the Separation. Responsibility for certain pre-Separation withdrawal liability obligations, resulting in such monthly and quarterly payment obligations, had been assigned to the parties, including LSC (the “LSC MEPP Liabilities”) pursuant to the September 14, 2016 Separation and Distribution Agreement among the Company, RRD and LSC (the “Separation Agreement”), however, the Company and RRD remained jointly and severally liable for the LSC MEPP Liabilities pursuant to laws and regulations governing multiemployer pension plans.

In 2020, the Company recorded charges of \$19.0 million for its estimated payments related to the LSC MEPP Liabilities, including the Company’s low end of the range of potential outcomes as well as the Company’s estimated shared payments until a final allocation by the arbitration panel was determined.

In 2021, the Company and RRD reached settlements with two of the three LSC multiemployer pension plan funds (the “Partial LSC MEPP Settlements”) and made lump sum payments to settle all obligations related to these funds. In 2021, the Company recorded net charges of \$5.4 million, which reflected the conclusion of arbitration proceedings where the final allocation of the LSC MEPP Liabilities of one-third to the Company and two-thirds to RRD was determined by the arbitration panel. As a result of the final liability allocation, the Company received a reimbursement from RRD of \$7.1 million for 2020 and 2021 payments made in excess of the Company’s allocated share of the LSC MEPP Liabilities, including the lump sum payments made associated with the Partial LSC MEPP Settlements. As of December 31, 2021, subsequent to the completion of arbitration, the Company had \$10.1 million accrued, on a discounted basis, assuming a blended discount rate of approximately 3.5%. The Company’s undiscounted LSC MEPP Liabilities were \$12.3 million, \$1.1 million of which is payable in each of the five succeeding years and the remainder thereafter through 2033, with annual payments ranging from \$0.8 million to \$1.1 million. The expense associated with the LSC MEPP Liabilities and the reimbursement from RRD were recorded in SG&A expenses within the Corporate segment in the Company’s audited Consolidated Statements of Operations for the years ended December 31, 2021 and 2020.

As of December 31, 2022, the Company’s MEPP liabilities totaled \$11.0 million, including \$9.4 million related to its share of LSC MEPP Liabilities.

There can be no assurance that the Company’s actual future liabilities relating to the MEPP liabilities (including MEPP liabilities where the Company and RRD remain jointly and severally liable) will not differ materially from the amount recorded in the Company’s audited Consolidated Financial Statements. If RRD fails to make required payments in respect of the remaining LSC MEPP Liabilities, or RRD fails to make required payments in respect of RRD’s MEPP liabilities, the Company may become obligated to make such payments. In addition, the Company’s MEPP liabilities could be affected by the financial stability of other employers participating in such plans and decisions by those employers to withdraw from such plans in the future.

Note 8. Commitments and Contingencies

As of December 31, 2022, the Company had noncancelable contractual commitments of approximately \$54 million for outsourced services and other miscellaneous obligations, primarily relating to information technology, professional, maintenance and other services.

Litigation

From time to time, the Company’s customers and others file voluntary petitions for reorganization under United States bankruptcy laws. In such cases, certain pre-petition payments received by the Company from these parties could be considered preference items and subject to return. In addition, the Company may be party to certain litigation arising in the ordinary course of business. Management believes that the final resolution of these preference items and litigation will not have a material effect on the Company’s consolidated results of operations, financial position or cash flows.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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Note 9. Income Taxes

Income taxes have been based on the following components of earnings (loss) before income taxes for the years ended December 31, 2022, 2021 and 2020:

	Year Ended December 31,		
	2022	2021	2020
U.S.	\$ 131.8	\$ 173.6	\$ (28.3)
Foreign	7.5	24.2	10.8
Earnings (loss) before income taxes	<u>\$ 139.3</u>	<u>\$ 197.8</u>	<u>\$ (17.5)</u>

The components of income tax expense (benefit) for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Year Ended December 31,		
	2022	2021	2020
Current:			
U.S. Federal	\$ 23.9	\$ 33.5	\$ 21.1
U.S. State and Local	10.8	14.7	10.0
Foreign	2.6	4.0	3.7
Current income tax expense	<u>37.3</u>	<u>52.2</u>	<u>34.8</u>
Deferred:			
U.S. Federal	(0.6)	1.2	(20.9)
U.S. State and Local	0.3	0.4	(6.4)
Foreign	(0.2)	(1.9)	0.9
Deferred income tax (benefit) expense	<u>(0.5)</u>	<u>(0.3)</u>	<u>(26.4)</u>
Total income tax expense	<u>\$ 36.8</u>	<u>\$ 51.9</u>	<u>\$ 8.4</u>

The following table outlines the reconciliation of differences between the U.S. Federal statutory tax rate and the Company’s worldwide effective income tax rate:

	Year Ended December 31,		
	2022	2021	2020
Federal statutory tax rate	21.0 %	21.0 %	21.0 %
State and local income taxes, net of U.S. federal income tax benefit	6.8	5.9	(8.7)
Changes in valuation allowances	1.2	(1.5)	(10.5)
Non-deductible expenses	1.0	0.5	(17.0)
Adjustment of uncertain tax positions and interest	0.4	0.4	(3.1)
Foreign tax rate differential	0.2	—	(0.7)
Provision to return	(1.9)	0.1	0.7
Credits and incentives	(1.4)	(0.5)	4.7
Foreign-derived intangible income	(1.2)	(0.6)	10.2
Global intangible low-taxed income provision	—	0.8	—
Goodwill impairment	—	—	(45.3)
Tax-exempt income and expense	—	—	0.6
Other	0.3	0.1	0.1
Effective income tax rate	<u>26.4 %</u>	<u>26.2 %</u>	<u>(48.0 %)</u>

The effective income tax rate was 26.4% for the year ended December 31, 2022 compared to 26.2% for the year ended December 31, 2021. The 2022 effective tax rate was impacted by an increase in valuation allowances and an increase in non-deductible expenses, partially offset by favorable return to provision adjustments and income tax credits.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
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The effective income tax rate was 26.2% for the year ended December 31, 2021 compared to (48.0%) for the year ended December 31, 2020. The change in the effective income tax rate was primarily driven by the nondeductible goodwill impairment charge recorded in 2020, increased earnings in 2021 and a reduction in the valuation allowances.

On August 16, 2022, President Biden signed the Inflation Reduction Act (“IRA”) into law, which included enactment of a 15% corporate minimum tax effective in 2023. The Company currently does not expect the corporate minimum tax to have a material impact on its financial results.

Deferred income taxes

The significant deferred tax assets and liabilities at December 31, 2022 and 2021 were as follows:

	December 31,	
	2022	2021
Deferred tax assets:		
Accrued liabilities and other reserves	\$ 15.2	\$ 28.6
Pension and other postretirement benefits plans liabilities	12.3	11.9
Lease liabilities	11.4	14.4
Net operating losses and other tax carryforwards	7.7	10.1
Capitalized research costs ^(a)	7.1	—
Share-based compensation	5.5	3.9
Allowance for doubtful accounts	5.5	3.4
Other	1.8	1.7
Total deferred tax assets	66.5	74.0
Valuation allowances	(5.4)	(4.8)
Total deferred tax assets	\$ 61.1	\$ 69.2
Deferred tax liabilities:		
Other intangible assets	\$ (9.6)	\$ (8.8)
Accelerated depreciation	(7.4)	(14.6)
Right-of-use assets	(6.6)	(8.5)
Prepaid assets	(1.1)	(1.0)
Other	(3.0)	(4.6)
Total deferred tax liabilities	(27.7)	(37.5)
Net deferred tax assets	\$ 33.4	\$ 31.7

(a) Beginning on January 1, 2022, for U.S. tax purposes, certain research and development costs are required to be capitalized and amortized, primarily over a 5-year period.

The amounts above are included in the audited Consolidated Balance Sheets as either a net asset or liability on a jurisdiction by jurisdiction basis.

Transactions affecting the valuation allowances on deferred tax assets during the years ended December 31, 2022, 2021 and 2020 were as follows:

	December 31,		
	2022	2021	2020
Balance, beginning of year	\$ 4.8	\$ 7.5	\$ 5.2
Expense (income), net	0.6	(2.7)	2.3
Balance, end of year	\$ 5.4	\$ 4.8	\$ 7.5

As of December 31, 2022, the Company had domestic and foreign net operating loss and other tax carryforward deferred tax assets of approximately \$7.7 million, of which \$4.6 million expires between 2023 and 2042. Limitations on the utilization of these deferred tax assets may apply. The Company has provided valuation allowances to reduce the carrying value of certain deferred tax assets as management has concluded that, based on the weight of available evidence, it is more likely than not that the deferred tax assets will not be fully realized.

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Notes to the audited Consolidated Financial Statements (continued)
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Earnings generated by a foreign subsidiary are presumed to ultimately be transferred to the parent company. Therefore, the establishment of deferred taxes may be required with respect to the excess of the investment value for financial reporting over the tax basis of investments in those foreign subsidiaries (also referred to as book-over-tax outside basis differences). A company may overcome this presumption and forgo recording a deferred tax liability in its financial statements if it can assert that management has the intent and ability to indefinitely reinvest the earnings of its foreign subsidiaries. As a result of the transition tax incurred pursuant to the Tax Cuts and Jobs Act (H.R. 1) (the “Tax Act”), the Company has the ability to repatriate any previously taxed foreign cash associated with the foreign earnings subjected to U.S. tax to the U.S. parent with minimal additional tax consequences. Due to the changes under the Tax Act, the Company updated its assertion in 2018 related to indefinite reinvestment on all foreign earnings and other outside basis differences to indicate that the Company remains indefinitely reinvested in operations outside of the U.S. with the exception of the previously taxed foreign earnings already subject to U.S. tax. The Company did not make any repatriations in 2022 and 2020 and repatriated \$30.0 million out of previously taxed earnings during 2021.

Uncertain tax positions

Changes in the Company’s unrecognized tax benefits at December 31, 2022, 2021 and 2020 were as follows:

	December 31,		
	2022	2021	2020
Balance, beginning of year	\$ 2.2	\$ 1.3	\$ 0.5
Additions for tax positions of the current year	0.5	0.3	0.3
Additions for tax positions of prior years	0.3	0.7	0.5
Releases	(0.5)	—	—
Settlements during the year	—	(0.1)	—
Balance, end of year	<u>\$ 2.5</u>	<u>\$ 2.2</u>	<u>\$ 1.3</u>

As of December 31, 2022, 2021 and 2020, the Company had unrecognized tax benefits of \$2.5 million, \$2.2 million and \$1.3 million, respectively. Unrecognized tax benefits of \$2.5 million as of December 31, 2022, if recognized, would have decreased income taxes and the corresponding effective income tax rate and increased net earnings. This potential impact on net earnings reflects the reduction of these unrecognized tax benefits, net of certain deferred tax assets and the federal tax benefit of state income tax items.

As of December 31, 2022, it is reasonably possible that a portion of the total amount of unrecognized tax benefits is expected to decrease within twelve months due to the resolution of audits or expirations of statutes of limitations related to U.S. federal, state or international tax positions, but the amount is immaterial.

The Company classifies interest expense and any penalties related to income tax uncertainties as a component of income tax expense. The total interest expense, net of tax benefits, related to tax uncertainties recognized in the audited Consolidated Statements of Operations was de minimis for the years ended December 31, 2022, 2021 and 2020. There were no benefits from the reversal of accrued penalties for the years ended December 31, 2022, 2021 and 2020. There were no accrued penalties related to income tax uncertainties at December 31, 2022 and 2021.

As of December 31, 2022, the Company has tax years from 2015 and thereafter that remain open and subject to examination by certain U.S. state taxing authorities and/or certain foreign tax jurisdictions. There are no U.S. federal income tax years prior to the period ending December 31, 2019 subject to IRS examination. All U.S. federal income tax years including and subsequent to the period ending December 31, 2019 remain open and subject to IRS examination.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
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Note 10. Debt

The Company’s debt as of December 31, 2022 and 2021 consisted of the following:

	December 31,	
	2022	2021
	(in millions)	
Term Loan A Facility	\$ 125.0	\$ 125.0
Borrowings under the Revolving Facility	45.0	—
Unamortized debt issuance costs	(0.8)	(1.0)
Total long-term debt	<u>\$ 169.2</u>	<u>\$ 124.0</u>

Credit Agreement—On May 27, 2021 (the “Restatement Effective Date”), the Company amended and restated its credit agreement dated as of September 30, 2016 (as in effect prior to such amendment and restatement, the “Credit Agreement,” and the Credit Agreement, as so amended and restated, the “Amended and Restated Credit Agreement”), by and among the Company, the lenders party thereto from time to time and JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, to, among other things, provide for a \$200.0 million delayed-draw term loan A facility (the “Term Loan A Facility”) (bearing interest at a rate equal to the sum of the London Interbank Offered Rate (“LIBOR”) plus a margin ranging from 2.00% to 2.50% based upon the Company’s Consolidated Net Leverage Ratio), extend the maturity of the \$300.0 million revolving credit facility (the “Revolving Facility”) to May 27, 2026 and modify the financial maintenance and negative covenants in the Credit Agreement. The Amended and Restated Credit Agreement contains a number of covenants, including a minimum Interest Coverage Ratio and the Consolidated Net Leverage Ratio, as defined in and calculated pursuant to the Credit Agreement, that, in part, restrict the Company’s ability to incur additional indebtedness, create liens, engage in mergers and consolidations, make restricted payments and dispose of certain assets. The Credit Agreement generally allows annual dividend payments of up to \$20.0 million in the aggregate.

Term Loan A Facility—On October 14, 2021, the Company drew \$200.0 million from the Term Loan A Facility and used the proceeds to redeem the Company’s Notes on October 15, 2021, as further described below. The weighted-average interest rate on borrowings under the Term Loan A Facility was 3.7% and 2.1% for the years ended December 31, 2022 and 2021, respectively. Prior to the prepayment of quarterly installments, as described below, the principal amount of loans under the Term Loan A Facility were due and payable in equal quarterly installments of 1.25% of the original principal amount of the loans during the first three years after the Restatement Effective Date, commencing on March 31, 2022, and 2.50% of the original principal amount of the loans thereafter. During the year ended December 31, 2021, the Company prepaid \$75.0 million of the original principal amount of the Term Loan A Facility and recognized a pre-tax loss on extinguishment of debt of \$0.6 million. As a result, quarterly installments of the original principal amount are no longer required and the entire unpaid principal amount of the Term Loan A Facility is due and payable in full on May 27, 2026. Voluntary prepayments of the Term Loan A Facility are permitted at any time without premium or penalty. The fair value of the Term Loan A Facility was \$121.6 million and \$124.2 million as of December 31, 2022 and 2021, respectively, and was determined to be Level 2 under the fair value hierarchy.

Revolving Facility—As of December 31, 2022, there were \$45.0 million of borrowings outstanding under the Revolving Facility. The weighted-average interest rate on borrowings under the Revolving Facility was 4.3% and 2.8% for the years ended December 31, 2022 and 2021, respectively. The fair value of the Company’s borrowings under the Revolving Facility is classified as Level 2 under the fair value hierarchy and approximated its carrying value as of December 31, 2022, as the Revolving Facility carries a variable rate of interest reflecting current market rates.

As of December 31, 2022, the Company had \$2.6 million outstanding letters of credit and bank guarantees and none of the outstanding letters of credit reduced the availability under the Revolving Facility. As of December 31, 2021, the Company had \$3.2 million in outstanding letters of credit and bank guarantees, of which \$2.2 million reduced the availability under the Revolving Facility.

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8.25% Senior Notes Due 2024 (the “Notes”)—On October 15, 2021, the Company redeemed the remaining outstanding Notes balance of \$233.0 million at the redemption price of 102.063, plus accrued and unpaid interest of \$9.6 million, using \$200.0 million of proceeds from the Company's Term Loan A Facility and cash. The Company recorded a pre-tax loss on the extinguishment of the Notes of \$6.8 million during the fourth the quarter of 2021. During 2020, the Company purchased and retired \$67.0 million (notional amount) of the Notes at a weighted-average price of 95.28 and recognized a pre-tax gain on the extinguishment of debt of \$2.3 million, which was net of unamortized debt issuance costs, and is recorded within interest expense, net in the audited Consolidated Statements of Operations.

The following table summarizes interest expense, net included in the audited Consolidated Statements of Operations:

	Year Ended December 31,		
	2022	2021	2020
Interest incurred	\$ 10.0	\$ 19.8	\$ 25.6
Interest income	(0.8)	(0.6)	(0.4)
Loss (gain) on debt extinguishment	—	7.4	(2.3)
Less: capitalized interest	—	—	(0.1)
Interest expense, net	\$ 9.2	\$ 26.6	\$ 22.8

Note 11. Earnings (Loss) per Share

Basic earnings (loss) per share is calculated by dividing net earnings (loss) by the weighted average number of common shares outstanding for the period. In computing diluted earnings (loss) per share, basic earnings (loss) per share is adjusted for the assumed issuance of all potentially dilutive share-based awards, including stock options, RSUs, PSUs and restricted stock. Since the Company was in a net loss position for the year ended December 31, 2020, there was no difference between the number of shares used to calculate basic and diluted loss per share.

The reconciliation of the numerator and denominator of the basic and diluted earnings (loss) per share calculation and the anti-dilutive share-based awards for the years ended December 31, 2022, 2021 and 2020, were as follows:

	Year Ended December 31,		
	2022	2021	2020
Net earnings (loss) per share:			
Basic	\$ 3.33	\$ 4.36	\$ (0.76)
Diluted	3.17	4.14	(0.76)
Numerator:			
Net earnings (loss)	\$ 102.5	\$ 145.9	\$ (25.9)
Denominator:			
Weighted average number of common shares outstanding	30.8	33.5	33.9
Dilutive awards	1.5	1.7	—
Diluted weighted average number of common shares outstanding	32.3	35.2	33.9
Weighted average number of anti-dilutive share-based awards:			
Restricted stock units	—	—	0.4
Stock options	—	—	0.8
Total	—	—	1.2

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Note 12. Share-based Compensation

The Company’s share-based compensation plan under which it may grant future awards, the Donnelley Financial Solutions, Inc. Amended and Restated 2016 Performance Incentive Plan (as amended, the “2016 PIP”), was approved by the Board of Directors (the “Board”) and the Company’s stockholders and provides incentives to key employees of the Company. Awards under the 2016 PIP may include cash or stock bonuses, stock options, stock appreciation rights, restricted stock, PSUs, performance cash awards or RSUs. In addition, non-employee members of the Board may receive awards under the 2016 PIP. Increases to the shares of common stock available for issuance under the 2016 PIP requires stockholder approval. On May 13, 2021, the Company’s stockholders voted and approved 3.4 million of additional shares of common stock for issuance under the 2016 PIP. At December 31, 2022, there were 3.5 million remaining shares of common stock authorized and available for grant under the 2016 PIP.

For all share-based awards granted to employees and directors, including stock options, RSUs and PSUs, the Company recognizes compensation expense based on estimated grant date fair values as well as certain assumptions as of the grant date, if applicable. The Company estimates the number of awards expected to vest based, in part, on historical forfeiture rates and also based on management’s expectations of employee turnover within the specific employee groups receiving each type of award. Forfeitures are estimated at the time of grant and revised, if necessary, in subsequent periods, if actual forfeitures differ from those estimates. The Company recognizes compensation costs for RSUs expected to vest, on a straight-line basis over the requisite service period of the award, which is generally the vesting term of three years. The Company recognizes compensation costs for PSUs, which cliff vest, on a straight-line basis over the performance period of the award. Compensation expense for stock options is recognized on a straight-line basis over the requisite service period of the award, which is generally the vesting term of four years.

Share-based awards are subject to forfeiture upon termination of employment prior to vesting, subject in some cases to early vesting upon specified events, including death or permanent disability of the grantee or a change in control of the Company. In addition, upon a change in control of the Company, PSUs will be measured at 100% attainment of the target performance metrics and will remain subject to time based vesting until the end of the vesting period; provided that the award will vest in full if, within three months prior to or two years after the date of the change in control of the Company, the grantee’s employment is terminated without cause by the Company or for good reason by the grantee.

Total share-based compensation expense was \$19.3 million, \$19.5 million and \$13.6 million for the years ended December 31, 2022, 2021 and 2020, respectively. The income tax benefit related to share-based compensation expense was \$7.2 million, \$9.5 million and \$3.7 million for the years ended December 31, 2022, 2021 and 2020, respectively. As of December 31, 2022, \$22.6 million of total unrecognized compensation expense related to share-based compensation awards is expected to be recognized over a weighted-average period of 1.6 years.

Stock Options

The fair value of each stock option award was estimated on each grant date using the Black-Scholes option pricing model. The Company used the following methods to determine its underlying assumptions:

- Expected volatility was estimated based on a weighted-average of historical volatilities for the Company’s peer group
- The risk-free interest rate was based on the U.S Treasury yield curve in effect on the date of grant
- The expected term of options granted was based on the simplified method of using the mid-point between the vesting term and the original contractual term
- The expected dividend yield was based on the Company’s current dividend rate

The Company did not grant any stock options in any of the three years ended December 31, 2022. The weighted-average fair value of options exercised during the years ended December 31, 2022 and 2021 was \$3.03 and \$4.10, respectively. There were no options exercised during the year ended December 31, 2020.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Stock option awards outstanding as of December 31, 2022 and 2021, and changes during the year ended December 31, 2022, were as follows:

	Shares Under Option (thousands)	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregated Intrinsic Value (millions)
Outstanding at December 31, 2021	562	\$ 18.30	5.9	\$ 16.2
Exercised	(22)	18.42	—	0.4
Cancelled/forfeited/expired	(16)	21.77	—	0.2
Outstanding at December 31, 2022	524	18.19	4.9	10.7
Vested and expected to vest at December 31, 2022	523	\$ 18.19	4.9	\$ 10.7
Vested and exercisable at December 31, 2022	485	\$ 18.51	4.8	\$ 9.8

Restricted Stock Units

The fair value of RSUs was determined based on the Company’s stock price on the grant date. The weighted-average grant date fair value of RSUs granted during the years ended December 31, 2022, 2021 and 2020 was \$30.42, \$28.38 and \$8.70, respectively.

RSUs outstanding as of December 31, 2022 and 2021, and changes during the year ended December 31, 2022, were as follows:

	Shares (thousands)	Weighted-Average Grant Date Fair Value
Nonvested at December 31, 2021	1,159	\$ 17.71
Granted	412	30.42
Vested	(558)	15.74
Forfeited	(24)	26.68
Nonvested at December 31, 2022	989	\$ 23.91

As of December 31, 2022, \$13.2 million of unrecognized share-based compensation expense related to RSUs is expected to be recognized over a weighted-average period of 1.7 years.

Performance Share Units

The fair value of PSUs was determined based on the Company’s stock price on the grant date. The weighted-average grant date fair value of PSUs granted during the years ended December 31, 2022, 2021 and 2020 was \$26.96, \$27.84 and \$8.73, respectively.

PSUs outstanding as of December 31, 2022 and 2021, and changes during the year ended December 31, 2022, were as follows:

	Shares (thousands)	Weighted-Average Grant Date Fair Value
Nonvested at December 31, 2021	953	\$ 16.77
Granted	359	26.96
Vested	(409)	13.49
Nonvested at December 31, 2022	903	\$ 22.31

During 2022, 358,856 PSUs were granted to certain executive officers and senior management, 274 thousand of which related to the 2022 performance grant and 85 thousand of which related to additional shares issued during the year ended December 31, 2022 due to the achievement of certain targets for the year ended December 31, 2021. The total potential payout for 2022 awards granted during the year ended December 31, 2022 is payable upon the achievement of certain established performance targets and ranges from zero to 547 thousand shares.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

PSU awards consist of four performance periods, including three annual performance periods and one three-year cumulative performance period.

Year Granted	Performance/ Service Period	Estimated or Actual Attainment	PSUs Outstanding as of December 31, 2022 (thousands)	Estimated PSU Attainment or Actual PSUs Earned (thousands)
2022	2022	140% ^(a)	68	95
2022	2023	(b)	68	—
2022	2024	(b)	69	—
2022	2022-2024	100% ^(c)	69	69
			<u>274</u>	<u>164</u>
2021	2021	200% ^(a)	77	154
2021	2022	87% ^(a)	77	67
2021	2023	(b)	77	—
2021	2021-2023	182% ^(c)	77	140
			<u>308</u>	<u>361</u>
2020	2020	138% ^(a)	80	110
2020	2021	200% ^(a)	80	160
2020	2022	69% ^(a)	80	55
2020	2020-2022	146% ^(a)	81	118
			<u>321</u>	<u>443</u>

(a) Amounts represent actual attainment and actual PSUs earned as the performance period is complete.

(b) As the performance period has not yet commenced, expense is not being recognized.

(c) Expense for the cumulative performance/service period is recognized at 100% of estimated attainment until the attainment expected by the end of the cumulative three-year performance period can be estimated, which generally occurs at the end of the second service year.

As of December 31, 2022, \$9.4 million of unrecognized compensation expense related to PSUs is expected to be recognized over a weighted average period of 1.4 years.

Note 13. Capital Stock

The Company has authorized for issuance 65 million shares of \$0.01 par value common stock and one million shares of \$0.01 par value preferred stock. The Board may divide the preferred stock into one or more series and fix the redemption, dividend, voting, conversion, sinking fund, liquidation and other rights. The Company has no present plans to issue any preferred stock.

Common Stock Repurchases—On February 17, 2022, the Board authorized an increase to its previously approved stock repurchase program to bring the total remaining available repurchase authorization for shares on or after February 17, 2022 to \$150 million and extended the expiration date of the repurchase program through December 31, 2023. On August 17, 2022, the Board authorized an increase to the stock repurchase program approved in February 2022 to bring the total remaining available repurchase authorization for shares on or after August 17, 2022 to \$150 million. The expiration date of the repurchase program remains through December 31, 2023.

The stock repurchase program may be suspended or discontinued at any time. The timing and amount of any shares repurchased are determined by the Company based on its evaluation of market conditions and other factors and may be completed from time to time in one or more transactions on the open market or in privately negotiated purchases in accordance with all applicable securities laws and regulations and all repurchases in the open market will be made in compliance with Rule 10b-18 under the Exchange Act. Repurchases may also be made under a Rule 10b5-1 plan, which would permit shares to be repurchased when the Company might otherwise be precluded from doing so.

For the year ended December 31, 2022, the Company repurchased 4,733,875 shares for \$152.5 million at an average price of \$32.21 per share. As of December 31, 2022, the remaining authorized amount was \$124.3 million. For the year ended December 31, 2021, the Company repurchased 972,881 shares for \$32.4 million at an average price of \$33.30 per share. For the year ended December 31, 2020, the Company repurchased 1,149,489 shares for \$10.3 million at an average price of \$8.92 per share.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Note 14. Comprehensive Income (Loss)

The components of other comprehensive (loss) income and income tax (benefit) expense allocated to each component for the years ended December 31, 2022, 2021 and 2020 were as follows:

	2022			2021			2020		
	Before Tax	Income Tax	Net of Tax	Before Tax	Income Tax	Net of Tax	Before Tax	Income Tax	Net of Tax
Translation adjustments	\$ (1.6)	\$ (0.2)	\$ (1.4)	\$ (0.8)	\$ (0.1)	\$ (0.7)	\$ 0.7	\$ 0.2	\$ 0.5
Adjustment for net periodic pension and other postretirement benefits plans	(4.8)	(1.3)	(3.5)	4.4	1.2	3.2	4.6	1.3	3.3
Other comprehensive (loss) income	<u>\$ (6.4)</u>	<u>\$ (1.5)</u>	<u>\$ (4.9)</u>	<u>\$ 3.6</u>	<u>\$ 1.1</u>	<u>\$ 2.5</u>	<u>\$ 5.3</u>	<u>\$ 1.5</u>	<u>\$ 3.8</u>

The following table summarizes changes in accumulated other comprehensive loss by component for the years ended December 31, 2022, 2021 and 2020:

	Pension and Other Postretirement Benefits Plans Cost	Translation Adjustments	Total
Balance at December 31, 2019	\$ (70.9)	\$ (13.7)	\$ (84.6)
Other comprehensive income before reclassifications	—	0.5	0.5
Amounts reclassified from accumulated other comprehensive loss	3.3	—	3.3
Net change in accumulated other comprehensive loss	3.3	0.5	3.8
Balance at December 31, 2020	<u>\$ (67.6)</u>	<u>\$ (13.2)</u>	<u>\$ (80.8)</u>
Other comprehensive loss before reclassifications	—	(0.3)	(0.3)
Amounts reclassified from accumulated other comprehensive loss	3.2	(0.4)	2.8
Net change in accumulated other comprehensive loss	3.2	(0.7)	2.5
Balance at December 31, 2021	<u>\$ (64.4)</u>	<u>\$ (13.9)</u>	<u>\$ (78.3)</u>
Other comprehensive loss before reclassifications	—	(1.4)	(1.4)
Amounts reclassified from accumulated other comprehensive loss	(3.5)	—	(3.5)
Net change in accumulated other comprehensive loss	(3.5)	(1.4)	(4.9)
Balance at December 31, 2022	<u>\$ (67.9)</u>	<u>\$ (15.3)</u>	<u>\$ (83.2)</u>

Reclassifications from accumulated other comprehensive loss for the years ended December 31, 2022, 2021 and 2020 were as follows:

	Year Ended December 31,		
	2022	2021	2020
Amortization of pension and other postretirement benefits plans cost:			
Net actuarial loss ^(a)	\$ 3.3	\$ 3.8	\$ 3.1
Reclassification of translation adjustment ^(b)	—	(0.5)	—
Reclassifications before tax	3.3	3.3	3.1
Income tax expense	0.9	1.1	0.9
Reclassifications, net of tax	<u>\$ 2.4</u>	<u>\$ 2.2</u>	<u>\$ 2.2</u>

(a) These accumulated other comprehensive loss components are included in the calculation of net periodic pension and other postretirement benefits plans income recognized in investment and other income, net, in the audited Consolidated Statements of Operations (see Note 7, Retirement Plans).

(b) Translation adjustment reclassification resulting from the liquidation of a foreign subsidiary is included in investment and other income, net in the audited Consolidated Statements of Operations.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Note 15. Segment Information

The Company operates its business through four operating and reportable segments: Capital Markets – Software Solutions, Capital Markets – Compliance and Communications Management, Investment Companies – Software Solutions and Investment Companies – Compliance and Communications Management. *Corporate* is not an operating segment and consists primarily of unallocated SG&A activities and associated expenses including, in part, executive, legal, finance and certain facility costs. In addition, certain costs and earnings of employee benefits plans, such as pension and other postretirement benefits plans expense (income) as well as share-based compensation expense, are included in Corporate and not allocated to the operating segments.

Capital Markets

The Company provides software solutions, tech-enabled services and print and distribution solutions to public and private companies for deal solutions and compliance to companies that are, or are preparing to become, subject to the filing and reporting requirements of the Securities Act and the Exchange Act. Capital markets clients leverage the Company’s software offerings, proprietary technology, deep industry expertise and experience to successfully navigate the SEC’s specified file formats when submitting compliance documents through the EDGAR system for their transactional and ongoing compliance needs. The Company assists its capital markets clients throughout the course of initial public offerings (“IPOs”), secondary offerings, mergers and acquisitions, public and private debt offerings, leveraged buyouts, spinouts, special purpose acquisition company (“SPAC”) and de-SPAC transactions and other similar transactions. In addition, the Company provides clients with compliance solutions to prepare their ongoing required Exchange Act filings that are compatible with the SEC’s EDGAR system, most notably Form 10-K, Form 10-Q, Form 8-K and proxy filings. The Company’s operating segments associated with its capital markets services and product offerings are as follows:

Capital Markets – Software Solutions—The Company provides Venue, ActiveDisclosure, eBrevia and other solutions to public and private companies to help manage public and private transactional and compliance processes; extract data and analyze contracts; collaborate; and tag, validate and file SEC documents.

Capital Markets – Compliance & Communications Management—The Company provides tech-enabled services and print and distribution solutions to public and private companies for deal solutions and SEC compliance requirements.

Investment Companies

The Company provides software solutions, tech-enabled services and print, distribution and fulfillment solutions to its investment companies clients that are subject to the filing and reporting requirements of the Investment Company Act, primarily mutual fund companies, alternative investment companies, insurance companies and third-party fund administrators. The Company’s suite of solutions enables its investment companies clients to comply with applicable ongoing SEC regulations, as well as to create, manage and deliver accurate and timely financial communications to investors and regulators. Investment companies clients leverage the Company’s proprietary technology, deep industry expertise and experience to successfully navigate the SEC’s specified file formats when submitting compliance documents through the EDGAR system. The Company’s operating segments associated with its investment companies services and products offerings are as follows:

Investment Companies – Software Solutions—The Company provides clients with the Arc Suite platform that contains a comprehensive suite of cloud-based solutions, including ArcDigital, ArcReporting, ArcPro and ArcRegulatory as well as services that enable storage and management of compliance and regulatory information in a self-service, central repository so that documents can be easily accessed, assembled, edited, tagged, translated, rendered and submitted to regulators and investors.

Investment Companies – Compliance & Communications Management—The Company provides its investment companies clients tech-enabled services to prepare, file and distribute registration forms, as well as XBRL-formatted filings pursuant to the Investment Company Act, through the SEC’s EDGAR system. In addition, the Company provides print and distribution solutions for its clients to communicate with their investors.

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Information by Segment

The Company has disclosed income (loss) from operations as the primary measure of segment earnings (loss). This is the measure of profitability used by the Company’s chief operating decision-maker and is most consistent with the presentation of profitability reported within the audited Consolidated Financial Statements.

	Net Sales	Income (Loss) from Operations	Assets ^(a)	Depreciation and Amortization	Capital Expenditures
Year Ended December 31, 2022					
Capital Markets - Software Solutions	\$ 180.2	\$ 13.5	\$ 187.4	\$ 23.0	\$ 27.0
Capital Markets - Compliance and Communications Management	410.3	131.4	387.7	6.7	5.0
Investment Companies - Software Solutions	99.4	21.9	98.4	11.9	15.6
Investment Companies - Compliance and Communications Management	143.7	35.7	36.7	4.6	3.0
Total operating segments	833.6	202.5	710.2	46.2	50.6
Corporate	—	(57.5)	118.1	0.1	3.6
Total	\$ 833.6	\$ 145.0	\$ 828.3	\$ 46.3	\$ 54.2
Year Ended December 31, 2021					
Capital Markets - Software Solutions	\$ 181.0	\$ 30.4	\$ 186.6	\$ 16.7	\$ 18.8
Capital Markets - Compliance and Communications Management	561.5	242.6	418.3	5.9	3.0
Investment Companies - Software Solutions	89.0	8.9	91.2	12.6	13.0
Investment Companies - Compliance and Communications Management	161.8	15.0	49.3	4.7	2.9
Total operating segments	993.3	296.9	745.4	39.9	37.7
Corporate	—	(77.6)	137.9	0.4	4.6
Total	\$ 993.3	\$ 219.3	\$ 883.3	\$ 40.3	\$ 42.3
Year Ended December 31, 2020					
Capital Markets - Software Solutions	\$ 133.2	\$ 8.5	\$ 167.7	\$ 13.1	\$ 14.8
Capital Markets - Compliance and Communications Management	424.0	120.6	389.6	14.4	3.4
Investment Companies - Software Solutions	67.0	(1.7)	91.8	12.0	9.5
Investment Companies - Compliance and Communications Management	270.3	(43.1)	67.7	10.0	2.1
Total operating segments	894.5	84.3	716.8	49.5	29.8
Corporate	—	(80.7)	148.8	1.4	1.3
Total	\$ 894.5	\$ 3.6	\$ 865.6	\$ 50.9	\$ 31.1

(a) Certain assets are recorded within a segment based on predominant usage, however, as they benefit more than one segment, the related operating expenses are allocated between segments.

Corporate assets primarily consisted of the following:

	December 31,	
	2022	2021
Cash and cash equivalents	\$ 34.2	\$ 54.5
Prepaid expenses and other current assets	16.0	13.0
Deferred income taxes, net	33.4	31.7
Other noncurrent assets	18.1	20.5

Donnelley Financial Solutions, Inc. and Subsidiaries (“DFIN”)
Notes to the audited Consolidated Financial Statements (continued)
(in millions, except per share data, unless otherwise indicated)

Note 16. Geographic Area Information

The Company’s net sales and long-lived assets by geographic region for the years ended December 31, 2022, 2021 and 2020 were as follows:

	<u>U.S.</u>	<u>Asia</u>	<u>Europe</u>	<u>Canada</u>	<u>Other</u>	<u>Consolidated</u>
<i>Year Ended December 31, 2022</i>						
Net sales	\$ 718.5	\$ 48.2	\$ 31.4	\$ 33.7	\$ 1.8	\$ 833.6
Long-lived assets ^(a)	135.3	11.5	5.6	0.5	—	152.9
<i>Year Ended December 31, 2021</i>						
Net sales	\$ 856.5	\$ 55.5	\$ 42.0	\$ 38.0	\$ 1.3	\$ 993.3
Long-lived assets ^(a)	130.6	8.9	13.3	0.4	—	153.2
<i>Year Ended December 31, 2020</i>						
Net sales	\$ 778.9	\$ 51.1	\$ 34.3	\$ 28.6	\$ 1.6	\$ 894.5
Long-lived assets ^(a)	127.5	8.0	8.7	0.5	—	144.7

(a) Includes property, plant and equipment, net; software, net; operating lease right-of-use assets and other noncurrent assets.

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of Donnelley Financial Solutions, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Donnelley Financial Solutions, Inc. and subsidiaries (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations, comprehensive income (loss), equity, and cash flows, for each of the three years in the period ended December 31, 2022, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2022, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 21, 2023, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and 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. Our audits included performing procedures to assess the risks 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 management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue - Unbilled Receivables and Contract Asset Balances — Refer to Note 2 to the financial statements

Critical Audit Matter Description

The timing of revenue recognition may differ from the timing of invoicing to customers and these timing differences result in unbilled receivables or contract assets. Contract assets represent revenue recognized for performance obligations completed before an unconditional right to payment exists and therefore invoicing has not yet occurred. The Company generally estimates contract assets based on historical selling price adjusted for its current experience and expected resolutions of the variable consideration of the completed performance obligation. When the Company's contracts contain variable consideration, the variable consideration is recognized only to the extent that it is probable that a significant revenue reversal will not occur in a future period. As a result, the estimated revenue and contract assets may be constrained until the uncertainty associated with the variable consideration is resolved, which generally occurs in less than one year. Determining whether there will be a significant revenue reversal in the future and the determination of the amount of the constraint requires significant judgment.

Unbilled receivables are recorded when there is an unconditional right to payment and invoicing has not yet occurred. The Company estimates the value of unbilled receivables based on a combination of historical customer selling price by service or product and management's assessment of realizable selling price. Unbilled revenues can vary significantly from period to period because of seasonality, volume and market conditions. The Company's unbilled receivables balance and contract asset balance were \$33.2 million and \$20.1 million, respectively, as of December 31, 2022.

We identified the valuation of unbilled receivables and contract assets as a critical audit matter because of the high volume of transactions, the manual nature of the Company's process and the judgments necessary for management to estimate the transaction price, standalone selling price, and variable consideration. This required extensive audit effort due to the volume and complexity of these arrangements and required a high degree of auditor judgment when performing audit procedures related to management's estimates for transactions which have not been invoiced.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to management's estimate of the valuation of unbilled receivables and contract assets included the following, among others:

- We tested the effectiveness of controls over management's estimate of the valuation of unbilled receivables and contract assets.
- We evaluated management's estimation process by performing the following:
 - o For revenue billed in January 2023, we compared the billed amount against the amount which was estimated as of December 31, 2022.
 - o Investigated trends to assist in evaluating management's estimation process for unbilled receivables and contract assets (and the related unbilled revenue).
- We selected a sample of unbilled arrangements for both unbilled receivables and contract assets, and performed the following:
 - o Compared the transaction price to the consideration expected to be received based on current rights and obligations under the arrangements.
 - o Tested the methodology and mathematical accuracy of management's calculation of the estimated revenue, including the constraint of variable consideration.
 - o Tested the allocation of the transaction price to each distinct performance obligation for the contract asset selections by comparing the relative standalone selling price to selling prices of similar goods or services previously provided to the customer or other customers.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 21, 2023

We have served as the Company's auditor since 2015.

UNAUDITED INTERIM FINANCIAL INFORMATION

**(In millions, except per share data)
For the Year Ended December 31, 2022**

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Net sales	\$ 211.0	\$ 266.2	\$ 188.7	\$ 167.7	\$ 833.6
Income from operations	35.3	65.9	26.7	17.1	145.0
Net earnings	26.4	46.0	19.2	10.9	102.5
Net earnings per share:					
Basic	0.80	1.46	0.64	0.37	3.33
Diluted	0.77	1.42	0.62	0.36	3.17
Weighted-average number of common shares outstanding:					
Basic	32.9	31.5	29.8	29.1	30.8
Diluted	34.4	32.4	30.9	30.7	32.3

Includes the following significant items:

	Pre-tax					After-tax				
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year	First Quarter	Second Quarter	Third Quarter	Fourth Quarter	Full Year
Share-based compensation expense	\$ 3.6	\$ 5.9	\$ 4.4	\$ 5.4	\$ 19.3	\$ 0.8	\$ 4.2	\$ 3.1	\$ 4.0	\$ 12.1
Restructuring, impairment and other charges, net	1.8	0.2	2.6	3.1	7.7	1.3	0.1	2.0	2.3	5.7
Accelerated rent expense	—	—	0.2	0.6	0.8	—	—	0.1	0.5	0.6
Loss on sale of a business	—	—	—	0.7	0.7	—	—	—	0.4	0.4
Disposition-related expenses	—	—	—	0.1	0.1	—	—	—	0.1	0.1
Non-income tax, net	(0.3)	(0.2)	(0.2)	(0.2)	(0.9)	(0.2)	(0.1)	(0.2)	(0.1)	(0.6)
COVID-19 related recoveries	—	(0.2)	(0.1)	(0.2)	(0.5)	—	(0.1)	(0.1)	(0.1)	(0.3)
Gain on equity investment	—	—	(0.5)	—	(0.5)	—	—	(0.4)	—	(0.4)
Gain on sale of long-lived assets	—	(0.2)	—	—	(0.2)	—	(0.2)	—	—	(0.2)

INDEX TO EXHIBITS

- 3.1 [Amended and Restated Certificate of Incorporation of Donnelley Financial Solutions, Inc. \(incorporated by reference to Exhibit 3.1 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)](#)
- 3.2 [Amended and Restated By-laws of Donnelley Financial Solutions, Inc. \(incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)](#)
- 4.1 [Indenture, dated as of September 30, 2016, among Donnelley Financial Solutions, Inc., the subsidiary guarantors party thereto and Wells Fargo Bank, National Association, as Trustee \(incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)](#)
- 4.2 [Description of the Donnelley Financial Solutions, Inc. Securities Registered under Section 12 of the Exchange Act \(incorporated by reference to Exhibit 4.2 to the Company's Annual Report on Form 10-K dated December 31, 2019, filed on February 26, 2020\)](#)
- 10.1 [Amended and Restated Credit Agreement dated as of May 27, 2021, by and among Donnelley Financial Solutions, Inc., the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative and collateral agent \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated May 27, 2021, filed on June 1, 2021\)](#)
- 10.2 [2016 Donnelley Financial Solutions, Inc. Performance Incentive Plan \(incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)*](#)
- 10.3 [Amended and Restated Donnelley Financial Solutions, Inc. 2016 Performance Incentive Plan \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated May 18, 2017, filed on May 23, 2017\)*](#)
- 10.4 [Amendment to the Donnelley Financial Solutions, Inc. Amended and Restated 2016 Performance Incentive Plan dated May 20, 2019 \(incorporated herein by reference to Appendix A of the Company's definitive proxy statement on Schedule 14A \(file No. 001-37728\) filed on April 22, 2019\)*](#)
- 10.5 [Amendment to Amended and Restated Donnelley Financial Solutions, Inc. 2016 Performance Incentive Plan dated June 27, 2019 \(incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 10-Q dated June 30, 2019, filed on August 1, 2019\)*](#)
- 10.6 [Donnelley Financial Solutions, Inc. Non-Employee Director Compensation Plan \(incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed on February 22, 2022\)*](#)
- 10.7 [Policy on Retirement Benefits, Phantom Stock Grants and Stock Options for Directors \(incorporated by reference to Exhibit 10.1 to R.R. Donnelley & Sons Company Quarterly Report on Form 10-Q for the quarter ended June 30, 2008, filed on August 6, 2008\)*](#)
- 10.8 [Donnelley Financial Solutions, Inc. Nonqualified Deferred Compensation Plan, dated as of September 22, 2016 \(incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)*](#)
- 10.9 [Donnelley Financial Unfunded Supplemental Pension Plan effective October 1, 2016 \(incorporated by reference to Exhibit 10.6 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017\)*](#)
- 10.10 [Donnelley Financial Solutions, Inc. Amended and Restated Executive Severance Plan \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated July 15, 2020, filed on July 20, 2020\)*](#)
- 10.11 [Letter Agreement to Employment Agreement, dated as of April 20, 2018, between the Company and Daniel N. Leib \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated April 10, 2018, filed on April 16, 2018\)*](#)
- 10.12 [Amended and Restated Employment Agreement, dated as of July 13, 2017, between the Company and Daniel N. Leib \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated July 13, 2017, filed on July 14, 2017\)*](#)

- 10.13 [Amendment dated as of July 15, 2020 to Amended and Restated Employment Agreement dated as of July 13, 2017 between the Company and Daniel N. Leib \(incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K dated July 15, 2020, filed on July 20, 2020\)*](#)
- 10.14 [Assignment of Employment Agreement and Acceptance of Assignment, dated as of September 29, 2016, between Donnelley Financial Solutions, Inc., R. R. Donnelley & Sons Company and David A. Gardella \(incorporated by reference to Exhibit 10.7 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)*](#)
- 10.15 [Waiver of Severance Benefits, dated as of June 1, 2017, by and between David A. Gardella and the Company \(incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017\)*](#)
- 10.16 [Assignment of Severance Agreement and Acceptance of Assignment, dated as of September 29, 2016, between Donnelley Financial Solutions, Inc., R. R. Donnelley & Sons Company and Jennifer B. Reiners \(incorporated by reference to Exhibit 10.8 to the Company's Current Report on Form 8-K dated September 30, 2016, filed on October 3, 2016\)*](#)
- 10.17 [Employment Agreement, dated as of March 21, 2016, between R. R. Donnelley & Sons Company and Craig Clay \(incorporated by reference to Exhibit 10.21 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed on February 22, 2022\)*](#)
- 10.18 [Waiver of Severance Benefits, dated as of June 16, 2017, by and between Craig Clay and Donnelley Financial Solutions, Inc. \(incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed February 22, 2022\)*](#)
- 10.19 [Employment Agreement, dated as of June 9, 2010, between R. R. Donnelley & Sons Company and Eric Johnson \(incorporated by reference to Exhibit 10.23 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed February 22, 2022\)*](#)
- 10.20 [Waiver of Severance Benefits, dated as of June 19, 2017, by and between Eric Johnson and Donnelley Financial Solutions, Inc. \(incorporated by reference to Exhibit 10.24 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed February 22, 2022\)*](#)
- 10.21 [Waiver of Severance Benefits, dated as of June 1, 2017, by and between Jennifer B. Reiners and the Company \(incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K dated May 30, 2017, filed on June 5, 2017\)*](#)
- 10.22 [Donnelley Financial Solutions Annual Incentive Plan \(incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K dated March 2, 2018, filed on March 13, 2018\)*](#)
- 10.23 [Form of Performance Share Unit Award Agreement \(incorporated by reference to Exhibit 10.22 to the Company's Annual Report on Form 10-K dated December 31, 2017, filed on February 28, 2018\)*](#)
- 10.24 [Form of Performance Share Unit Award Agreement \(for 2019\) \(incorporated by reference to Exhibit 10.25 to the Company's Quarterly Report on Form 10-Q dated March 31, 2019, filed on May 2, 2019\)*](#)
- 10.25 [Form of Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.18 to the Company's Quarterly Report on Form 10-Q dated March 31, 2017, filed on May 4, 2017\)*](#)
- 10.26 [Form of Restricted Stock Unit Award \(2021\) \(incorporated by reference to Exhibit 10.27 to the Company's Annual Report on Form 10-K dated December 31, 2020, filed on February 25, 2021\)*](#)
- 10.27 [Form of Stock Option Award Agreement \(incorporated by reference to Exhibit 10.19 to the Company's Quarterly Report on Form 10-Q dated March 31, 2017, filed on May 4, 2017\)*](#)
- 10.28 [Form of Performance Cash Award Agreement \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K dated March 2, 2020, filed on March 6, 2020\)*](#)
- 10.29 [Form of Performance Restricted Stock Unit Award Agreement \(2021\) \(incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K dated December 31, 2020, filed on February 25, 2021\)*](#)
- 10.30 [Form of Director Restricted Stock Unit Award \(deferral election\) \(incorporated by reference to Exhibit 10.30 to the Company's Annual Report on Form 10-K dated December 31, 2021, filed on February 22, 2022\)*](#)

- 10.31 [Form of Director Restricted Stock Unit Award \(incorporated by reference to Exhibit 10.26 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017\)*](#)
- 10.32 [Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement \(incorporated by reference to Exhibit 10.21 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2004, filed on March 14, 2005\)*](#)
- 10.33 [Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement \(incorporated by reference to Exhibit 10.25 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2007, filed on February 27, 2008\)*](#)
- 10.34 [Form of Restricted Stock Unit Award Agreement for directors converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement \(incorporated by reference to Exhibit 10.23 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed on February 25, 2009\)*](#)
- 10.35 [Form of Amendment to Director Restricted Stock Unit Awards converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement \(incorporated by reference to Exhibit 10.22 to the R.R. Donnelley & Sons Company Annual Report on Form 10-K for the fiscal year ended December 31, 2008, filed on February 25, 2009\)*](#)
- 10.36 [Form of Amendment to Director Restricted Stock Unit Awards dated May 21, 2009 converted from R.R. Donnelley & Sons Company to the Company pursuant to the Separation Agreement \(incorporated by reference to Exhibit 10.23 to the R.R. Donnelley & Sons Company Quarterly Report on Form 10-Q for the quarter ended June 30, 2009, filed on August 5, 2009\)*](#)
- 10.37 [Form of Director Indemnification Agreement \(incorporated by reference to Exhibit 10.10 to the Company's Quarterly Report on Form 10-Q dated September 30, 2016, filed on November 9, 2016\)](#)
- 10.38 [Real Estate Sale Agreement, dated as of August 30, 2022, between Donnelley Financial, LLC and Aspirant Partners, LLC \(incorporated by reference to Exhibit 10.42 to the Company's Quarterly Report on Form 10-Q dated September 30, 2022, filed on November 2, 2022\)](#)
- 10.39 [First Amendment to Real Estate Sale Agreement, dated as of November 28, 2022, between Donnelley Financial, LLC and Aspirant Partners, LLC \(filed herewith\)](#)
- 10.40 [Second Amendment to Real Estate Sale Agreement, dated as of January 9, 2023, between Donnelley Financial, LLC and Aspirant Partners, LLC \(filed herewith\)](#)
- 14.1 [Code of Ethics for the Chief Executive Officer and Senior Financial Officers \(incorporated by reference to Exhibit 14.1 to the Company's Annual Report on Form 10-K dated December 31, 2016, filed on February 28, 2017\)](#)
- 21.1 [Subsidiaries of the Registrant \(filed herewith\)](#)
- 23.1 [Consent of Deloitte & Touche LLP \(filed herewith\)](#)
- 24.1 [Powers of Attorney \(filed herewith\)](#)
- 31.1 [Certification by Daniel N. Leib, President and Chief Executive Officer, required by Rule 13a-14\(a\) and Rule 15d-14\(a\) of the Securities Exchange Act of 1934 \(filed herewith\)](#)
- 31.2 [Certification by David A. Gardella, Executive Vice President and Chief Financial Officer, required by Rule 13a-14\(a\) and Rule 15d-14\(a\) of the Securities Exchange Act of 1934 \(filed herewith\)](#)
- 32.1 [Certification by Daniel N. Leib, President and Chief Executive Officer, required by Rule 13a-14\(b\) or Rule 15d-14\(b\) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code \(filed herewith\)](#)
- 32.2 [Certification by David A. Gardella, Executive Vice President and Chief Financial Officer, required by Rule 13a-14\(b\) or Rule 15d-14\(b\) of the Securities Exchange Act of 1934 and Section 1350 of Chapter 63 of Title 18 of the United States Code \(filed herewith\)](#)

101.INS	Inline XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104	The cover page for the Company’s Annual Report on Form 10-K for the year ended December 31, 2022, has been formatted in Inline XBRL and contained in Exhibit 101

* Management contract or compensatory plan or arrangement.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on the 21st day of February 2023.

DONNELLEY FINANCIAL SOLUTIONS, INC.

By: / s / DAVID A. GARDELLA

David A. Gardella
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities indicated, on the 21st day of February 2023.

Signature and Title

/ s / DANIEL N. LEIB

Daniel N. Leib
President and Chief Executive Officer, Director
(Principal Executive Officer)

/ s / DAVID A. GARDELLA

David A. Gardella
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/ s / KAMI S. TURNER

Kami S. Turner
Senior Vice President and Chief Accounting Officer
(Principal Accounting Officer)

/ s / RICHARD L. CRANDALL *

Richard L. Crandall
Chairman of the Board, Director

/ s / LUIS A. AGUILAR *

Luis A. Aguilar
Director

/ s / CHANDAR PATTABHIRAM *

Chandar Pattabhiram
Director

By: / s / JENNIFER B. REINERS

Jennifer B. Reiners
As Attorney-in-Fact

Signature and Title

/ s / CHARLES D. DRUCKER *

Charles D. Drucker
Director

/ s / JULIET S. ELLIS *

Juliet S. Ellis
Director

/ s / GARY G. GREENFIELD *

Gary G. Greenfield
Director

/ s / JEFFREY JACOBOWITZ *

Jeffrey Jacobowitz
Director

/ s / LOIS M. MARTIN *

Lois M. Martin
Director

* By Jennifer B. Reiners as Attorney-in-Fact pursuant to Powers of Attorney executed by the directors listed above, which Powers of Attorney have been filed with the Securities and Exchange Commission.

**FIRST AMENDMENT TO
REAL ESTATE SALE AGREEMENT**

THIS FIRST AMENDMENT TO AMENDED AND RESTATED AGREEMENT OF SALE AND PURCHASE (this “**Amendment**”) is entered into effective as of November 28, 2022, by and between DONNELLEY FINANCIAL, LLC, a Delaware limited liability company (“**Seller**”), and ASPIRANT PARTNERS LLC, an Arizona limited liability company (“**Buyer**”).

RECITALS:

WHEREAS, Buyer and Seller entered into that certain Real Estate Sale Agreement dated as of August 30, 2022 (the “**Agreement**”), with respect to certain real property and the improvements situated thereon located in 1500 N. Central Avenue, Phoenix, Arizona (APN # 111-33-150A and 111-33-151), as more particularly described in the Agreement (the “**Property**”); and

WHEREAS, Seller and Buyer desire to amend the Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual covenants of Seller and Buyer and for other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, Seller and Buyer hereby agree as follows:

1. Incorporation of Recitals; Capitalized Terms. The Recitals set forth above are hereby incorporated herein to the same extent as if fully set forth herein. All capitalized terms stated herein shall have the same meanings as ascribed to them in the Agreement unless otherwise defined.
2. Modification to Agreement.
 - a) The second sentence of Section 4(b) of the Agreement is hereby deleted in its entirety and replaced with the following: “On or before December 28, 2022, provided this Agreement has not been terminated, Purchaser shall deposit with Escrow Agent the additional sum of Three Hundred Thousand and 00/100 Dollars (\$300,000.00) (the “**Additional Deposit**”).
 - b) The fourth sentence of Section 5(b) of the Agreement is hereby deleted in its entirety and replaced with the following: “Purchaser acknowledges and agrees that (i) commencing on the first day of the Entitlement Period (i.e., November 28, 2022), Twenty Five Thousand and No/100 Dollars (\$25,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller, (ii) 30 days thereafter (i.e., on December 28, 2022), if Purchaser has not previously terminated this Agreement, an additional One Hundred Thousand and No/100 Dollars (\$100,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller, (iii) 30 days thereafter (i.e., on January 27, 2023), if Purchaser has not previously terminated this Agreement, an additional Twenty Five Thousand and No/100 Dollars (\$25,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller, and (iv) every 30 days thereafter, if Purchaser has not previously terminated this Agreement, an additional Fifty Thousand and No/100 Dollars (\$50,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller until all Earnest Money on deposit has been released to Seller (all such releases of the Earnest Money referred to as the “**Nonrefundable Deposit**”), provided that Seller shall be required to return the Nonrefundable Deposit to Purchaser if this Agreement is terminated by Purchaser pursuant to **Section 11**, **Section 17(b)**, **Section 17(c)**, or **Section 20**; the Nonrefundable Deposit, together with the rest of the Earnest Money, if any, shall be credited against the Purchase Price at Closing.”

c) Ratification of Agreement. Except as modified by this Amendment, all of the terms and provisions of the Agreement are hereby ratified and confirmed by Seller and Buyer and shall remain in full force and effect.

d) Counterparts; Electronic Signatures. This Amendment may be executed in any number of counterparts, any or all of which may contain the signatures of less than all of the parties, and all of which shall be construed together as a single instrument. To facilitate execution of this Amendment, the parties may execute and exchange by email pdf counterparts of the signature pages, which shall constitute originals for all purposes under this Amendment.

[Signature page follows]

IN WITNESS WHEREOF, Buyer and Seller have executed this Amendment as of the date first above written.

SELLER:

DONNELLEY FINANCIAL, LLC,
a Delaware limited liability company

By: /s/ Jons. S. Besch
Name: Jons S. Besch
Title: Chief Operations and Production Officer

BUYER:

ASPIRANT PARTNERS LLC,
an Arizona limited liability company

By: /s/ Geoff Jacobs
Name: Geoff Jacobs
Title: Authorized Agent

**SECOND AMENDMENT TO
REAL ESTATE SALE AGREEMENT**

THIS SECOND AMENDMENT TO REAL ESTATE SALE AGREEMENT (this "**Amendment**") is entered into effective as of January 9, 2023, by and between DONNELLEY FINANCIAL, LLC, a Delaware limited liability company ("**Seller**"), and ASPIRANT PARTNERS LLC, an Arizona limited liability company ("**Buyer**").

RECITALS:

WHEREAS, Buyer and Seller entered into that certain Real Estate Sale Agreement dated as of August 30, 2022 (as amended by a First Amendment dated November 28, 2022, the "**Agreement**"), with respect to certain real property and the improvements situated thereon located in 1500 N. Central Avenue, Phoenix, Arizona (APN # 111-33-150A and 111-33-151), as more particularly described in the Agreement (the "**Property**"); and

WHEREAS, Seller and Buyer desire to amend the Agreement as provided herein.

NOW, THEREFORE, in consideration of the mutual covenants of Seller and Buyer and for other good and valuable consideration, the receipt and sufficiency of which the parties hereby acknowledge, Seller and Buyer hereby agree as follows:

1. **Incorporation of Recitals; Capitalized Terms.** The Recitals set forth above are hereby incorporated herein to the same extent as if fully set forth herein. All capitalized terms stated herein shall have the same meanings as ascribed to them in the Agreement unless otherwise defined.

2. **Modification to Agreement.**

(a) The second sentence of Section 4(b) of the Agreement is hereby deleted in its entirety and replaced with the following: "On or before January 10, 2023, Purchaser shall deposit with Escrow Agent the additional sum of One Hundred Fifty Thousand and 00/100 Dollars (\$150,000.00) (the "**First Additional Deposit**"), and on or before March 28, 2023, provided this Agreement has not been terminated, Purchaser shall deposit with Escrow Agent the additional sum of One Hundred Fifty Thousand and 00/100 Dollars (\$150,000.00) (the "**Second Additional Deposit**"). If and when deposited, the First Additional Deposit and the Second Additional Deposit shall become part of the Earnest Money.

(b) The fourth sentence of Section 5(b) of the Agreement is hereby deleted in its entirety and replaced with the following: "Purchaser acknowledges and agrees that (i) commencing on the first day of the Entitlement Period (i.e., November 28, 2022), Twenty Five Thousand and No/100 Dollars (\$25,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller, (ii) on January 10, 2023, an additional One Hundred Thousand and No/100 Dollars (\$100,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller (in signing this Amendment, both Parties agree for the \$100,000 non-refundable Earnest Money to be released to the Seller), (iii) on January 27, 2023, if Purchaser has not previously terminated this Agreement, an additional Twenty Five Thousand and No/100 Dollars (\$25,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller, and (iv) every 30 days thereafter, if Purchaser has not previously terminated this Agreement, an additional Fifty Thousand and No/100 Dollars (\$50,000.00) of the Earnest Money shall be non-refundable to Purchaser and shall be released by Escrow Agent to Seller until all Earnest Money on deposit has been released to Seller (all such releases of the Earnest Money referred to as the "**Nonrefundable Deposit**"), provided that Seller shall be required to return the Nonrefundable Deposit to Purchaser if this Agreement is terminated by Purchaser pursuant to **Section 11**, **Section 17(b)**, **Section 17(c)**, or **Section 20**; the Nonrefundable Deposit, together with the rest of the Earnest Money, if any, shall be credited against the Purchase Price at Closing.

(c) Exhibit E which is attached hereto is added as a new Exhibit E to the Agreement and is titled “Nonrefundable Deposit Schedule, Extension and Final Payments.” For the avoidance of doubt, Exhibit E reflects a deposit summary with respect to the Earnest Money and portions thereof constituting the Nonrefundable Deposit as well as the final payments due to Seller at transaction close and Purchaser extension option.

3. Ratification of Agreement. Except as modified by this Amendment, all of the terms and provisions of the Agreement are hereby ratified and confirmed by Seller and Buyer and shall remain in full force and effect. If Buyer makes the First Additional Deposit as provided in Section 2 above, Buyer shall be deemed to have sent Seller an Approval Notice (as defined in the Agreement) and the Agreement and any escrow established in connection with the Agreement shall be in full force and effect.

4. Counterparts; Electronic Signatures. This Amendment may be executed in any number of counterparts, any or all of which may contain the signatures of less than all of the parties, and all of which shall be construed together as a single instrument. To facilitate execution of this Amendment, the parties may execute and exchange by email pdf counterparts of the signature pages, which shall constitute originals for all purposes under this Amendment.

[Signature page follows]

IN WITNESS WHEREOF, Buyer and Seller have executed this Amendment as of the date first above written.

SELLER:

DONNELLEY FINANCIAL, LLC,
a Delaware limited liability company

By: /s/ Jons. S. Besch
Name: Jons S. Besch
Title: Chief Operations and Production Officer

BUYER:

ASPIRANT PARTNERS LLC,
an Arizona limited liability company

By: /s/ Geoff Jacobs
Name: Geoff Jacobs
Title: Authorized Agent

Exhibit E

Phoenix Sale - Deposit Summary				PSA - Amendment 2 - 1/9/2023			
Date	Day	Days (Total)	Milestone	Escrow Deposit	DFIN Payment (Non-Refundable)	Extension Option DFIN Payment (Non-Refundable)	Commitment Fee
1-Aug-22	0	0	LOI Signed	\$ -	\$ -		
30-Aug-22	29	29	PSA Signed /1st Deposit	\$ 250,000	\$ -		\$ 25,000
29-Sep-22	30	59	Due Diligence / Inspection - 90 Days	\$ -	\$ -		
29-Oct-22	30	89		\$ -	\$ -		
28-Nov-22	30	119		\$ -	\$ 25,000		
28-Dec-22	30	149		\$ -	\$ -		
9-Jan-23	12	161	Entitlement Period/Transaction Closing/Extensions	\$ -	\$ 100,000		
10-Jan-23	1	162		\$ 150,000	\$ -		
27-Jan-23	17	179		\$ -	\$ 25,000		
26-Feb-23	30	209		\$ -	\$ 50,000		
28-Mar-23	30	239		\$ 150,000	\$ 50,000		
27-Apr-23	30	269		\$ -	\$ 50,000		
27-May-23	30	299		\$ -	\$ 50,000		
26-Jun-23	30	329		\$ -	\$ 50,000		
26-Jul-23	30	359		\$ -	\$ 50,000		
25-Aug-23	30	389		\$ -	\$ 50,000		
24-Sep-23	30	419		\$ -	\$ -		
24-Oct-23	30	449		\$ -	Initial Deal Close	\$ 100,000	
23-Nov-23	30	479		\$ -	\$ -	Deal Ext. Close	
TOTALS				\$ 550,000	\$ 500,000	\$ 100,000	\$ 25,000

	Closing Date	Sale Price	Payments to DFIN	Remaing Amount to DFIN
Initial Deal Close	10/24/2023	\$ 13,025,000	\$ 525,000	\$ 12,500,000
Deal Ext. Close	11/23/2023	\$ 13,125,000	\$ 625,000	\$ 12,500,000

Donnelley Financial Solutions, Inc.

Entity Name	Entity Type	Domestic Jurisdiction
Bowne International, L.L.C.	Limited Liability Company	Delaware
DFS International Holdings, Inc.	Corporation	Delaware
Donnelley Financial Data Solutions Deutschland GmbH	Limited Liability Company	Frankfurt/Main
Donnelley Financial Solutions Australia Pty Limited	Limited Liability Company	Victoria
Donnelley Financial Solutions Canada Corporation	Corporation	Nova Scotia
Donnelley Financial Solutions Canada Holdings ULC	Unlimited Company	Nova Scotia
Donnelley Financial Solutions do Brasil Ltda.	Limited Liability Company	Brazil
Donnelley Financial Solutions France Sarl	Limited Liability Company	France
Donnelley Financial Solutions Group UK Limited	Public Limited Company	England and Wales
Donnelley Financial Solutions Holdings UK Limited	Limited Liability Company	England
Donnelley Financial Solutions Hong Kong Limited	Limited Liability Company	Hong Kong
Donnelley Financial Solutions Ireland Limited	Limited Liability Company	Ireland
Donnelley Financial Solutions Japan Inc	Corporation	Tokyo
Donnelley Financial Solutions Luxembourg SARL	Limited Liability Company	Luxembourg
Donnelley Financial Solutions Poland sp. z o.o.	Limited Liability Company	Poland
Donnelley Financial Solutions Russia LLC	Limited Liability Company	Republic of Tatarstan
Donnelley Financial Solutions Singapore Pte. Ltd.	Limited Liability Company	Singapore
Donnelley Financial Solutions UK Limited	Limited Liability Company	England and Wales
Donnelley Financial, LLC	Limited Liability Company	Delaware
Donnelley Translation Services (Shanghai) Co., Ltd.	Limited Liability Company	China
eBrevia, Inc.	Corporation	Delaware
LATFIN Holdings, LLC	Limited Liability Company	Delaware
Roman Financial Press (Holdings) Limited	Limited Liability Company	British Virgin Islands
RR Donnelley International de Mexico, S.A. de C.V.	Corporation	Mexico
Guardum Holdings Limited	Company Limited by Shares	England and Wales

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-213915 and 333-231836 on Form S-8 of our reports dated February 21, 2023 relating to the consolidated financial statements of Donnelley Financial Solutions, Inc. and subsidiaries and the effectiveness of Donnelley Financial Solutions, Inc.'s internal control over financial reporting, appearing in this Annual Report on Form 10-K of Donnelley Financial Solutions, Inc. for the year ended December 31, 2022.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
February 21, 2023

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints David A. Gardella, Jennifer B. Reiners and Kami S. Turner, or any of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, in any and all capacities, to sign the Annual Report on Form 10-K of Donnelley Financial Solutions, Inc. for its fiscal year ended December 31, 2022 and any and all amendments thereto, and to file the same with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent, or her substitute, may lawfully do or cause to be done by virtue hereof. This Power of Attorney shall be effective from the date on which it is signed until June 30, 2023.

Dated: February 21, 2023

/s/ Luis A. Aguilar

Luis A. Aguilar

/s/ Richard L. Crandall

Richard L. Crandall

/s/ Charles D. Drucker

Charles D. Drucker

/s/ Juliet S. Ellis

Juliet S. Ellis

/s/ Gary G. Greenfield

Gary G. Greenfield

/s/ Jeffrey Jacobowitz

Jeffrey Jacobowitz

/s/ Lois M. Martin

Lois M. Martin

/s/ Chandar Pattabhiram

Chandar Pattabhiram

**Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a)
of the Securities Exchange Act of 1934**

I, Daniel N. Leib, certify that:

1. I have reviewed this Annual Report on Form 10-K of Donnelley Financial Solutions, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2023

/s/ DANIEL N. LEIB

Daniel N. Leib
President and Chief Executive Officer

**Certification Pursuant to Rule 13a-14(a) and Rule 15d-14(a)
of the Securities Exchange Act of 1934**

I, David A. Gardella, certify that:

1. I have reviewed this Annual Report on Form 10-K of Donnelley Financial Solutions, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 21, 2023

/s/ DAVID A. GARDELLA

David A. Gardella
Executive Vice President and Chief Financial Officer

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
CERTIFICATION PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
AND SECTION 1350 OF CHAPTER 63 OF TITLE 18
OF THE UNITED STATES CODE (18 U.S.C. 1350),
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Donnelley Financial Solutions, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, Daniel N. Leib, President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 21, 2023

/s/ DANIEL N. LEIB

Daniel N. Leib
President and Chief Executive Officer

CERTIFICATION OF CHIEF FINANCIAL OFFICER
CERTIFICATION PURSUANT TO RULE 13a-14(b) OR RULE 15d-14(b)
AND SECTION 1350 OF CHAPTER 63 OF TITLE 18
OF THE UNITED STATES CODE (18 U.S.C. 1350),
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report of Donnelley Financial Solutions, Inc. (the “Company”) on Form 10-K for the period ending December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the “Report”), I, David A. Gardella, Executive Vice President and Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to the best of my knowledge:

- (1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

February 21, 2023

/s/ DAVID A. GARDELLA

David A. Gardella
Executive Vice President and Chief Financial Officer