

**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, 2021**

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 **1-4694**

R. R. DONNELLEY & SONS COMPANY

(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)

36-1004130
(I.R.S. Employer
Identification No.)
60601
(ZIP Code)

(312) 326-8000
(Registrant's telephone number, including area code)

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

<u>Title of each class</u>	<u>Trading Symbol(s)</u>	<u>Name of each exchange on which registered</u>
Common Stock, par value \$0.01 per share	RRD	New York Stock Exchange
Preferred Stock Purchase Rights		New York Stock Exchange

Indicate 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 (§229.405 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, a 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 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 issued its audit report.

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 registrant's common stock held by non-affiliates based on the sale price of the common stock on June 30, 2021 was \$440,834,717.

As of February 18, 2022, 75,212,238 shares of common stock were outstanding.

Documents Incorporated By Reference

Information required in Part III of this Annual Report on Form 10-K is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022.

Auditor Firm Id: PCAOB ID No. 34 Auditor Name: DELOITTE & TOUCHE LLP Auditor Location: Chicago, IL

TABLE OF CONTENTS

Form 10-K Item No.	Name of Item	Page
<u>Part I</u>		
Item 1.	<u>Business</u>	3
Item 1A.	<u>Risk Factors</u>	10
Item 1B.	<u>Unresolved Staff Comments</u>	19
Item 2.	<u>Properties</u>	20
Item 3.	<u>Legal Proceedings</u>	20
Item 4.	<u>Mine Safety Disclosures</u>	20
	<u>Information About Our Executive Officers</u>	21
<u>Part II</u>		
Item 5.	<u>Market for R. R. Donnelley & Sons Company's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	22
Item 7.	<u>Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	24
Item 7A.	<u>Quantitative and Qualitative Disclosures about Market Risk</u>	35
Item 8.	<u>Financial Statements and Supplementary Data</u>	36
Item 9.	<u>Changes in and Disagreements with Accountants on Accounting and Financial Disclosure</u>	36
Item 9A.	<u>Controls and Procedures</u>	36
Item 9B.	<u>Other Information</u>	39
Item 9C.	<u>Disclosure Regarding Foreign Jurisdictions that Prevent Inspections</u>	39
<u>Part III</u>		
Item 10.	<u>Directors and Executive Officers of R. R. Donnelley & Sons Company and Corporate Governance</u>	39
Item 11.	<u>Executive Compensation</u>	39
Item 12.	<u>Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	39
Item 13.	<u>Certain Relationships and Related Transactions, and Director Independence</u>	39
Item 14.	<u>Principal Accounting Fees and Services</u>	39
<u>Part IV</u>		
Item 15.	<u>Exhibits, Financial Statement Schedules</u>	39
Item 16.	<u>Form 10-K Summary</u>	40
	<u>Signatures</u>	44

PART I

ITEM 1. BUSINESS

Company Overview

R.R. Donnelley & Sons Company (“RRD,” the “Company,” “we,” “us,” and “our”), a Delaware corporation, helps organizations communicate more effectively by working to create, manage, produce, distribute and process content on behalf of our clients. We assist clients in developing and executing multichannel communication strategies that engage audiences, reduce costs, drive revenues and enhance compliance. Our innovative content management offering, production platform, supply chain management, outsourcing capabilities and customized consultative expertise assists our clients in the delivery of integrated messages across multiple media to highly targeted audiences at optimal times to their customers in virtually every private and public sector. We have strategically located operations that provide local service and responsiveness while leveraging the economic, geographic and technological advantages of a global organization.

On December 14, 2021, we entered into a definitive merger agreement under which we agreed to be acquired by affiliates of Chatham Asset Management, LLC (“Chatham”), a leading private investment firm. Under the terms of the merger agreement, an affiliate of Chatham will acquire all of the outstanding shares of RRD common stock not already owned by Chatham, and RRD stockholders will receive \$10.85 per share in cash for each share of RRD common stock. All regulatory approvals have been obtained and at a special meeting on February 23, 2022, RRD’s stockholders approved the proposed merger. The merger with Chatham is expected to close on February 25, 2022. Upon completion of the transaction, RRD’s shares will no longer trade on the New York Stock Exchange and RRD will become a private company.

Competitive Strategy

Our key strategic focus areas, which leverage our long-standing client relationships and comprehensive portfolio of capabilities, are as follows:

- *Driving Profitable Growth:* We intend to drive profitable growth in each of our core businesses and shift our portfolio mix toward higher growth segments.
- *Optimizing Business Performance:* We intend to optimize our business performance by providing exceptional service and product quality to our clients while aggressively reducing our costs in order to improve margins and fund our transformation efforts.
- *Disciplined Capital Allocation:* We intend to maintain a disciplined approach to capital allocation with an added focus on reducing our leverage, while also investing in our future through strategic capital investments and acquisitions.

Segment Descriptions

Our segments and their product and service offerings are summarized below:

Business Services

Business Services provides customized solutions at scale to help clients inform, service and transact with their customers. The segment’s primary product and service offerings include commercial print, packaging, labels, statement printing, supply chain management, forms and business process outsourcing. This segment also includes all of our operations in Asia, Europe, Canada and Latin America. In 2021, our Business Services segment accounted for 78.8% of our consolidated net sales.

Commercial Print

We provide various commercial printing products and offer a full range of branded materials including manuals, publications, brochures, business cards, flyers, post cards, posters and promotional items. Commercial print accounted for 39.3% of our Business Services segment’s net sales for the fiscal year ended December 31, 2021.

Packaging

We provide packaging solutions, ranging from rigid boxes to in-box print materials, for clients in consumer electronics, life sciences, cosmetics and consumer packaged goods industries. Packaging accounted for 19.7% of our Business Services segment’s net sales for the fiscal year ended December 31, 2021.

Labels

We produce custom labels for clients across multiple industries including warehouse and distribution, retail, pharmaceutical, manufacturing and consumer packaging. We offer distribution and shipping labels, healthcare and durable goods labels, promotional labels and consumer product goods packaging labels. Labels accounted for 13.6% of our Business Services segment's net sales for the fiscal year ended December 31, 2021.

Statements

We create critical business communications, including customer billings, financial statements, healthcare communications and insurance documents. Our capabilities include design and composition, variable imaging, email, archival and digital mail interaction, as well as our innovative RRDigital solution set. Statements accounted for 11.0% of our Business Services segment's net sales for the fiscal year ended December 31, 2021.

Supply Chain Management

We provide workflow design to assembly, configuration, kitting and fulfillment for clients in life sciences and healthcare, consumer electronics, telecommunications, cosmetics, education and industrial industries. During 2020 and 2021, we experienced a significant increase in demand for our kitting services driven by COVID-19-related orders. Supply chain management accounted for 7.2% of our Business Services segment's net sales for the fiscal year ended December 31, 2021.

Forms

We produce a variety of forms including invoices, order forms and other business forms that support both the private and public sectors for clients in financial, government, retail, healthcare and business services industries. Forms accounted for 5.0% of our Business Services segment's net sales for the fiscal year ended December 31, 2021.

Business Process Outsourcing

We provide outsourcing services including creative services, research and analytics, financial management and other services for legal providers, insurance, telecommunications, utilities, retail and financial services companies. Business process outsourcing accounted for 4.2% of our Business Services segment's net sales for the fiscal year ended December 31, 2021.

Marketing Solutions

Marketing Solutions leverages an integrated portfolio of data analytics, creative services and multichannel execution to deliver comprehensive, end-to-end solutions. The segment's primary product and service offerings include direct marketing, in-store marketing, digital print, kitting, fulfillment, digital and creative solutions and list services. In 2021, our Marketing Solutions segment accounted for 21.2% of our consolidated net sales.

Direct Marketing

We provide audience segmentation, creative development, program testing, print production, postal optimization and performance analytics for large-scale personalized direct mail programs. Direct marketing accounted for 50.7% of our Marketing Solutions segment's net sales for the fiscal year ended December 31, 2021.

Digital Print and Fulfillment

Using digital and offset production capabilities, we provide in-store marketing materials, including signage and point-of-purchase materials, as well as custom marketing kits that require multiple types of marketing collateral. Under the trade name Motif™, we also create custom photobooks. Digital print and fulfillment accounted for 41.0% of our Marketing Solutions segment's net sales for the fiscal year ended December 31, 2021.

Digital and Creative Solutions

We help clients manage their customer data in order to better understand their customers and guide more effective marketing communications efforts. In addition, we create, edit and manage content for delivery across multiple marketing communications channels including print and digital advertising, direct marketing and mail, packaging, sales collateral, in-store marketing and social media. Digital and creative solutions accounted for 8.3% of our Marketing Solutions segment's net sales for the year ended December 31, 2021.

Corporate

Our Corporate segment consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal, finance, communications, certain facility costs and last-in-first-out inventory provisions. In addition, certain costs and earnings of employee benefit plans, such as pension and other postretirement benefits (“OPEB”) plan expense (income) and share-based compensation, are included in Corporate and not allocated to the operating segments. Corporate also manages our cash pooling structures, which enables participating international locations to draw on our international cash resources to meet local liquidity needs.

Business Dispositions

In 2020, to focus on our core product and service offerings, we completed our plan to exit our Logistics Business. This business included Print Logistics, which was disposed of on July 2, 2018; Courier Logistics, which was disposed of on March 2, 2020; DLS Worldwide, which was disposed of November 2, 2020; and International Logistics which was disposed of on November 3, 2020. These businesses were included in the Business Services segment and primarily provided logistics services to a broad range of clients in the United States and globally. The financial results of these businesses have been excluded from continuing operations and segment results for all periods presented unless otherwise noted. Refer to *Note 2 –Discontinued Operations* to our Consolidated Financial Statements for additional information.

On October 25, 2019, we completed the sale of substantially all of the Global Document Solutions (“GDS”) business within the Business Services segment. GDS primarily provided statements and print management services in Europe. Additionally, during the year ended December 31, 2019, we sold the R&D business and our subsidiary, RR Donnelley Editora e Grafica Ltda. (“RRD Brazil”), filed for bankruptcy liquidation in bankruptcy court in Brazil. The operations of these three businesses were included in the Business Services segment.

Markets

The print and related services industry, in general, continues to have excess capacity and remains highly competitive and fragmented. Our clients operate in an evolving and ever-changing market. While the market is large and fragmented, there are tremendous changes occurring in how organizations need to create, manage, deliver and measure their communications. Some of the key factors facing our clients include regulatory changes, sensitivity to economic conditions, raw material pricing volatility and United States Postal Service (“USPS”) actions. In addition, technological changes, including the electronic distribution of documents and data, online distribution and hosting of media content, and advances in digital printing, print-on-demand and internet technologies, continue to impact the market for many of our products and services.

We believe that, across our range of products and services, competition is based primarily on quality and the ability to service the special needs of clients at a competitive price. Therefore, we believe we need to continue to differentiate our product and service offerings and aggressively manage our cost structure to remain competitive. Our business is differentiated by the wide array of quality communications products and services, including print and content management, we provide for our clients. We work with our clients to create, manage, deliver and optimize their multichannel communications strategies by providing innovative solutions to meet increasing customer demands in light of the large and evolving marketplace. We also continue to develop our creative and design, content management, digital and print production, supply chain management and distribution services to address our clients’ evolving needs while supporting the strategic objective of becoming a leading global provider of integrated communication products and services.

Refer to Part I Item 1A “*Risk Factors*” and Part II Item 7 -*Management’s Discussion and Analysis of Financial Condition and Results of Operations* for additional information regarding the impact of COVID-19 on our business.

Seasonality

Advertising and consumer spending trends affect demand in several of the end-markets we serve. As such, we have some seasonality in our business, mostly in the second half of the year, despite the breadth of our product and service offerings.

Resources

The primary raw materials we use in our print businesses are paper and ink. We negotiate with leading suppliers to maximize our purchasing efficiencies. Some of the paper we use is supplied directly by clients. During 2021, we have seen price increases from nearly all of our material suppliers in all categories. Notably, paper products have seen significant price increases primarily caused by supply shortages from key suppliers. The supply shortages have been caused in part by manufacturing capacity reductions, labor shortages and other supply chain disruptions. We, and our suppliers, have also experienced labor shortages and increased wage pressure for manufacturing workers due to current market conditions. Further, we experienced supply chain disruptions and shipping delays caused by container shortages in key domestic and international ports, including China. We expect these factors to continue for the foreseeable future.

To mitigate the effect of raw material shortages, inflationary pressures and other supply chain disruptions, we have offered our clients product alternatives, new formats, and in some cases secured new suppliers. We have also implemented price increases to pass inflationary costs along to our clients. Generally, clients directly absorb the impact of changing prices on client-supplied paper. With respect to paper we purchase, we have historically passed most changes in price through to our clients although in many cases there is a delay based on terms within individual client contracts. We believe contractual arrangements and industry practice will support our continued ability to pass on any future paper price increases, but there is no assurance that market conditions will continue to enable us to successfully do so.

In addition, we are working closely with transportation suppliers and increasing inventory levels to help ensure product availability, and we continue to aggressively pursue cost reductions across the Company to offset inflationary pressures. However, variations in the cost and supply of raw materials used in the manufacturing process and rising labor costs, may affect our consolidated financial results.

We continue to monitor the impact of changes in the price of crude oil and other energy costs, which impact our ink suppliers and manufacturing costs. Crude oil, energy prices and market cost of transportation continue to be volatile. We generally cannot pass on to clients the impact of higher energy prices on our manufacturing costs. We cannot predict sudden changes in energy prices and the impact that possible future changes in energy prices might have upon either future operating costs or client demand or the related impact either will have on our consolidated annual results of operations, financial position or cash flows.

We do not believe that our business is dependent upon any single patent or group of patents. We actively monitor the registrations of our trademark and patent portfolio to ensure that our intellectual property is appropriately protected and maintained.

Distribution

Our products are distributed to end-users through U.S. and foreign postal services, through retail channels, electronically or by direct shipment to client facilities. In cooperation with trusted logistics vendors, we manage the distribution of most client products we print in the U.S. and Canada to maximize efficiency and reduce costs for clients.

As a leading mail-service-provider of both First-Class Mail and USPS Marketing mail, we are ranked by the USPS as one of the largest preparers of mailings in the U.S. We work closely with our clients and the USPS to offer innovative products and mail preparation services to minimize postage costs. While we do not directly absorb the impact of higher postage rates on our clients' mailings, demand for products distributed through the U.S. or foreign postal services has been negatively impacted by increases in postage rates, as postal costs are a significant component of many clients' cost structures.

In accordance with the 2006 Postal Accountability and Enhancement Act ("PAEA"), the Postal Regulatory Commission ("PRC") adjusted and approved USPS filings for a CPI based average price increase of 1.5% to 1.8% depending on the major class of mail. The new prices took effect on January 24, 2021.

Additionally, as required on the 10-year anniversary of PAEA, the PRC initiated a comprehensive review of its regulations on December 20, 2016, to determine if the current system for regulating rates and classes for market-dominant products is still achieving the original objectives of the law. After multiple years of deliberation the PRC concluded that the current system was not meeting all of PAEA's original objectives and issued its final ruling on November 30, 2020. The ruling expanded USPS pricing authority to consider: 1) the higher cost implications caused by the declining average of the number of mail pieces delivered per delivery point, and 2) the congressionally mandated contributions by the Postal Service to fund future employee retirement benefits, respectively referred to as the "Density Adder", and the "Retirement Adder". These additional price adders plus CPI percentage increases will in total determine the overall price increase allowed for the market dominant mail classes. The Postal Service then used and applied its expanded pricing authority and imposed a second increase during 2021 ranging from 6.8 to 8.8%, which became effective on August 29, 2021.

Clients

We have approximately 25,000 clients worldwide, including 92% of the Fortune 100, 79% of the Fortune 500 and 67% of the Fortune 1000. Our products and services enable some of the world's largest companies to create, manage and deliver comprehensive and cost-effective multi-channel communications around the world. For each of the years ended December 31, 2021, 2020 and 2019, no single client accounted for 10% or more of consolidated net sales.

Cybersecurity

Our cybersecurity program is designed for needs and expectations of our clients who entrust us with highly sensitive information. Furthermore, our healthcare and insurance printing businesses are subject to industry-specific data regulations, including the Health Care Insurance Portability and Accountability Act of 1996, which could subject us and our clients to liability should sensitive client or patient information be publicly disclosed. Our infrastructure and technology, highly-trained global workforce and comprehensive security and compliance program enable us to safely process, store and protect client information in compliance with relevant regulations.

Our infrastructure and technology security capabilities are bolstered by our relationship with a leading data center services provider. Furthermore, we employ a highly skilled IT workforce to implement our cybersecurity programs and to handle specific security responsibilities. As a result of annual mandatory security awareness training, our IT workforce is trained to address security and compliance-related issues as they arise. Additionally, our IT employees are carefully screened, undergo a thorough background check and are bound by a nondisclosure agreement that details such employee's security and legal responsibilities with regard to information handling.

In December 2021, we identified a systems intrusion in our technical environment. In response, we promptly implemented a series of containment measures to address the situation, including activating our incident response protocols, shutting down servers and systems and commencing a forensic investigation. We also engaged cybersecurity experts to examine the incident and oversee the implementation of appropriate remedial actions. However, we became aware in mid-January 2022 that certain of our corporate data, the nature of which is continuing to be actively examined, was accessed and exfiltrated. To the extent any confidential client data is found in this data, the Company has and will continue to inform impacted clients within a reasonable time. We also notified and continue to work with appropriate law enforcement authorities. As a precautionary measure, we isolated a portion of our technical environment in an effort to contain the intrusion.

At this time, we have restored the affected systems and returned to normal levels of operations, and believe that the steps taken to isolate and remediate the identified threat have been effective. While we do not currently believe that this security event has or will result in a material adverse impact to the Company, data review and assessment related to this event remain ongoing, and we may determine in the future that such event had or will have a material adverse impact on our business, results of operations, financial condition or cash flows.

Government Regulations

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

Human Capital

RRD's approximately 32,000 employees worldwide represent our most important asset. We are committed to prioritizing a diverse, equitable and inclusive workplace, which allows us to attract and, importantly, retain high quality talent. Our laser focus on the health, safety and well-being of our employees helps us to maintain our qualified workforce and develop leaders for the future.

Diversity, Equity and Inclusion

We are committed to diversity, equity and inclusion from the membership of the Board of Directors through all layers of our employee ranks. Women represent 50% of our independent directors on the Board of Directors and 25% of our executive leadership team. Our priorities and the signing of the Parity Pledge in 2017 reflect our commitment to increasing the percentage of women in leadership roles across our company.

We are also focused on representation by historically underrepresented groups including, racial minorities and LGBTQ employees in our U.S. businesses. We are committed to diversifying our workforce and increasing representation of all underrepresented groups in our Board and leadership teams.

In 2020, we launched a new committee, the purpose of which is to focus on and formalize diversity, equity and inclusion initiatives for the Company, communicate broadly, and ensure that every employee feels respected and appreciated and can contribute to their fullest potential.

To ensure RRD's continued focus on diversity, equity and inclusion, executive team members are expected to consider at least one woman and one racial/ethnic minority in hiring for open positions on their teams. The Board receives ongoing updates on these priorities as well as on the hiring by the executive leadership team. In 2021, our CEO and CHRO were given a goal that all new hires or promotions into Director or higher levels at the Company must be at least 50% women or racially diverse candidates. The Company met that goal in 2021 despite a challenging labor market.

In January 2022, we announced that we received a score of 95 out of 100 on the Human Rights Campaign Foundations 2022 Corporate Equality Index, the nation's foremost benchmarking survey and report measuring corporate policies and procedures related to LGBTQ+ workplace equality.

Pay Equity

We are committed to paying employees equally for like work, at like levels, in like geographical areas, with similar years of experience, regardless of an employee's gender, race, ethnicity, sexual orientation, or other personal characteristics. We have reviewed a variety of positions to ensure pay equity and made adjustments where needed. We regularly review our compensation process and, at this time, we have not identified any specific, significant systemic issues in our compensation process.

Employee Engagement

In 2020 and 2021, we were diligent in surveying our employees throughout the impact of COVID-19 to ensure that employees understood what resources were available to them, how to request assistance (including through our Employee Assistance Program), and how to navigate novel work environments in an unprecedented time. On the whole, the organization pivoted and adapted efficiently and without significant issues in a rapidly changing landscape. Essentially all of our manufacturing facilities were deemed to be essential by applicable government agencies, and as a result our employees have continued to work throughout the pandemic. As such, when COVID-19 hit our facilities in the U.S. and abroad, we immediately implemented rigorous cleaning procedures, mandated the wearing of masks, and required physical distancing where possible. If an employee disclosed a positive COVID-19 test, we deep cleaned areas the employee had visited and engaged in contact tracing.

Because of our successful performance and the extraordinary engagement of our essential employees, in December 2020, we were able to pay a year-end bonus to employees not otherwise eligible for a bonus. This employee group included full-time hourly workers, managers, supervisors, facility workers and other non-sales employees who are not eligible for the annual incentive plan or commissions that are available to certain managers, directors, vice presidents and other executives. Throughout 2021, we were able to increase hourly wages at a number of our facilities based on the continued extraordinary efforts of our employees.

We also maintain a robust open door process to capture, investigate and timely respond to employee concerns. Throughout 2020 and 2021, we listened carefully as employees raised new issues during these unprecedented times and responded with due speed.

Finally, we provided our workforce with engagement opportunities, including through our Global Women's Business Resource Group, inclusion councils, and dialogues hosted by our diversity, equity and inclusion leadership team.

Training and Development

A critical component of our investment in our employees is the provision of virtual and self-directed learning and development. This training covers topics from sexual harassment prevention, ADA awareness, IT security and a wide variety of anti-corruption and compliance programs. In 2021, 99.7% of employees timely completed their required training.

In addition to compliance related training, we also offer leadership and job skills training in order to continue to grow and develop our diverse workforce.

In 2021, the Company engaged a vendor to train the Executive Leadership Team ("ELT") in diversity in hiring and retention at the Company. Since the Company prioritizes diversity in its hiring at all levels and understands that diversity in leadership will lead to more diversity throughout the Company, it has made continued education and heightened awareness of these issues a top priority for the ELT and for all leaders at the Company, including those on the Human Resources Team.

Health and Safety

As a manufacturing company, operations in our facilities continue to represent our greatest safety and health risks for our employees. Managing and mitigating risks at our facilities is the top priority for the executive team and every employee around the world. Safety has routinely been a part of our performance metrics for leadership in our facilities and one indicator of success in this area is our recordable case rate, which is at the lowest level since becoming a stand-alone company in 2016.

We are continually evolving our policies and procedures to adhere to the latest best practices being provided by the Centers for Disease Control ("CDC") and World Health Organization ("WHO"). Our cross-functional COVID Task Force created at the onset of the pandemic has developed safety measures, policies, and procedures for our workplace. We have implemented flexible working policies, including telecommuting and staggered shifts, while allowing for voluntary leaves of absence. We have encouraged vaccinations and have begun to welcome employees back into our offices on a voluntary basis using a cautious approach. We continue to enforce social distancing policies within all of our facilities, follow local and state guidelines concerning face coverings, and provide training for adherence to personal hygiene best practices in line with CDC and WHO guidelines.

Available Information

We maintain an Internet website at www.rrd.com where our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports are available without charge, as soon as reasonably practicable following the time they are filed with, or furnished to, the Securities and Exchange Commission (“SEC”). Reports, proxy and information statements and other information that is filed electronically with the SEC are also available on our website the SEC’s website at www.sec.gov.

The Principles of Corporate Governance of our Board of Directors, the Charters of the Audit, Human Resources and Corporate Responsibility & Governance Committees of the Board of Directors and our Principles of Ethical Business Conduct are also available on the Investor Relations portion of www.rrd.com, and will be provided, free of charge, to any stockholder who requests a copy. References to our website address do not constitute incorporation by reference of the information contained on the website, and the information contained on the website is not incorporated by reference into this Annual Report on Form 10-K.

Forward-Looking Statements

This Annual Report on Form 10-K and any documents incorporated by reference contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995. These statements are subject to risks and uncertainties and are based on our beliefs and assumptions. Generally, forward-looking statements include information concerning our possible or assumed future actions, events, or results of operations. These statements may include, or be preceded or followed by, the words “may,” “will,” “should,” “might,” “could,” “would,” “potential,” “possible,” “believe,” “expect,” “anticipate,” “intend,” “plan,” “estimate,” “hope” or similar expressions and their negative variations. We claim the protection of the safe harbor for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995 for all forward-looking statements.

Forward-looking statements are not guarantees of performance. The factors identified below are believed to be significant factors, but not necessarily all of the significant factors, that could cause actual results to differ materially from those expressed in any forward-looking statement. Unpredictable or unknown factors could also have material effects on us.

The following important factors, in addition to those discussed elsewhere in this Annual Report on Form 10-K, could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in our forward-looking statements:

- the pendency of our agreement to be acquired by Chatham Asset Management could have an adverse effect on our business;
- adverse changes in global economic conditions and the resulting effect on the businesses of our clients, including changes related to COVID-19;
- demand for our products and services, including fluctuating orders specifically related to COVID-19;
- adverse changes in global economic conditions and the resulting effect on the businesses of our clients;
- changes in customer preferences or a failure to otherwise manage relationships with our significant clients;
- loss of brand reputation and decreases in quality of client support and service offerings;
- political and regulatory risks and uncertainty in the countries in which we operate or sell our products and services;
- taxation related risks in multiple jurisdictions;
- adverse credit market conditions and other issues that may affect our ability to obtain future financing on favorable terms;
- limitations on our borrowing capacity in our credit facilities;
- increases in interest rates;
- our ability to make payments on, reduce or extinguish any of our material indebtedness;
- supply chain issues, including changes in the availability or costs of key materials (such as ink and paper) or increases in shipping costs; additionally, shipping quotas imposed by major carriers such as Fedex and UPS may impact our cost of shipping and our ability to timely fulfil orders;
- our ability to improve operating efficiency rapidly enough to meet market conditions;
- impairment of assets as a result of a decline in our individual reporting units’ expected profitability;
- our ability and/or our vendors’ ability to implement and maintain information technology and security measures sufficient to protect against breaches and data leakage or the failure to properly use and protect customer, Company and employee information and data, particularly in light of the increased prevalence of remote working arrangements during COVID-19;

- a failure in or breach of data held in the computer systems we and our vendors maintain;
- increased pricing pressure as a result of the competitive environment in which we operate;
- our ability to execute on our portfolio optimization strategies, including potential sales of non-core assets;
- increasing health care and benefits costs for employees and retirees;
- changes in our pension and OPEB obligations;
- adverse trends or events in our operations outside of the United States;
- the effect of inflation, changes in currency exchange rates and changes in interest rates;
- catastrophic events which may damage our facilities or otherwise disrupt the business;
- the effect of changes in laws and regulations, including changes in accounting standards, trade, tax, environmental compliance, health and welfare benefits, price controls and other regulatory matters and the cost, which could be substantial, of complying with these laws and regulations;
- changes in the regulations applicable to our clients, which may adversely impact demand for our products and services;;
- factors that affect client demand, including changes in postal rates, postal regulations and service levels, changes in the capital markets, changes in advertising markets, clients' budgetary constraints and changes in clients' short-range and long-range plans;
- failures or errors in our products and services;
- changes in technology, including electronic substitution and migration of paper based documents to digital data formats, and our ability to adapt to these changes;
- inability to hire and retain a skilled and diverse workforce;
- potential contingent obligations related to LSC and DFIN leases, multiemployer pension plan liabilities, environmental liabilities, and other liabilities associated with the bankruptcy of LSC;
- the spinoffs resulting in significant tax liability; and
- other risks and uncertainties detailed from time to time in our filings with the SEC.

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. There may be other risks and uncertainties that we are unable to identify at this time or that we do not currently expect to have a material impact on the business. 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 on Form 10-K should consider these forward-looking statements only as our current plans, estimates and beliefs. We undertake no obligation to update or revise any forward-looking statements in this Annual Report on Form 10-K to reflect any new events or any change in conditions or circumstances.

ITEM 1A. RISK FACTORS

Our 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 this Annual Report on Form 10-K. You should carefully consider all of these risks.

Business combination risk

The pendency of our merger agreement with Chatham Asset Management, LLC could have an adverse effect on our business.

On December 14, 2021, we entered into a definitive merger agreement under which we agreed to be acquired by affiliates of Chatham Asset Management, LLC ("Chatham"). Under the terms of the merger agreement, an affiliate of Chatham will acquire all of the outstanding shares not already owned by Chatham, and RRD stockholders will received \$10.85 per share in cash for each share of RRD common stock. All regulatory approvals have been obtained and at a special meeting on February 23, 2022, RRD's stockholders approved the proposed merger. The merger with Chatham is expected to close on February 25, 2022.

The announcement and pendency of the merger could cause disruption in our business, including the potential loss or disruption of commercial relationships prior to the completion of the merger. For example, parties with which we do business may be uncertain as to the effects on them of the merger, including with respect to their current or future business relationships with us. These relationships may be subject to disruption as clients, suppliers and other persons with whom we have a business relationship may delay or defer certain business decisions or might decide to terminate, change or renegotiate their relationships with us or consider entering into business relationships with other parties. These disruptions could have an adverse effect on the results of our operations, cash flows and financial position. The announcement and pendency of the merger could also have a potential negative effect on our ability to retain management, sales and other key personnel.

The merger agreement generally requires us to operate our business in the ordinary course of business pending consummation of the merger, but includes certain contractual restrictions on the conduct of our business prior to completion of the merger. These restrictions may prevent us from taking certain specified actions or otherwise pursuing business opportunities during the pendency of the merger that may be beneficial to us. In addition, matters relating to the merger (including integration planning) will require substantial commitments of time and resources by our management, which could divert their time and attention. We have also incurred, and will continue to incur, significant non-recurring costs in connection with the merger that we may be unable to recover.

The risk, and adverse effect, of any disruption could be exacerbated by a delay in completion of the merger or termination of the merger agreement. Completion of the merger is subject to the satisfaction or waiver of a number of conditions, many of which are not within our control. The failure to satisfy all of the required conditions could delay the completion of the merger for a significant period of time or prevent it from occurring. We cannot provide assurance that our pending merger with Chatham will be completed. Failure to complete the merger could also negatively affect our stock price and our future business and financial results.

Transactions like the merger are frequently the subject of litigation or other legal proceedings, including actions alleging that either our board of directors breached their respective fiduciary duties to their stockholders by entering into the merger agreement, by failing to obtain a greater value in the transaction for their stockholders or otherwise. Some stockholder litigation has been filed in connection with the planned merger, and additional claims could be filed in the future. We believe that such litigation, claims or proceedings are without merit and we will defend against them, but we might not be successful in doing so. An adverse outcome in such matters, as well as the costs and efforts of a defense even if successful, could have a material adverse effect on our business, results of operation or financial position, including through the possible diversion of either company's resources or distraction of key personnel.

All of the matters described above, alone or in combination, could materially and adversely affect our business, financial condition, results of operations and stock price.

Market, economic, and industry related risks

Global market and economic conditions, which have been significantly affected by the COVID-19 pandemic, as well as the effects of these conditions on our clients' businesses, may adversely affect us.

In general, demand for our products and services is highly correlated with general economic conditions. Because a significant part of our business relies on our clients' advertising spending, which is driven in part by economic conditions and customer spending, a prolonged downturn in the global economy and an uncertain economic outlook may further reduce the demand for printing and related services that we provide to these clients. Delays or reductions in clients' spending could have an adverse effect on demand for our products and services which may adversely affect our results of operations, financial position and cash flows. Economic weakness and constrained advertising spending may result in decreased revenue, operating margin, earnings and growth rates and difficulty in managing inventory levels and collecting accounts receivable. In addition, client difficulties may result in increases in bad debt write-offs and allowances for credit losses. Economic downturns may also result in restructuring actions and associated expenses and impairment of long-lived assets, including goodwill and other intangibles. Uncertainty about future economic conditions makes it difficult for us to forecast operating results and to make decisions about future investments.

As the COVID-19 pandemic spread across the globe during 2020 and 2021, it strained the global economy which resulted in decreased demand for certain of our products and services, and created tremendous business challenges for us and many of our clients and suppliers. We have taken a number of proactive measures to manage through the impact of the ongoing pandemic. The extent to which the pandemic continues to impact our operations and the operations of our suppliers and our clients will depend on future developments, which remain uncertain at this time, including the duration of the pandemic, the development and distribution of effective treatments and vaccines, and the degree and ultimate success of government intervention in stabilizing economies around the world. While we continue to identify and capitalize on pandemic-related opportunities, including producing pandemic-related orders, and we continue to implement cost-cutting measures to mitigate the effects of the pandemic, the decreased demand has adversely affected our business, operating results, financial condition and cash flows. Depending on the severity and duration of the global economic decline, revenue declines from decreased client demand has and could continue to materially adversely affect our business, operating results, financial condition and cash flows. Additionally, declining operating results and cash flows may also cause impairments of tangible and intangible assets and an increase in allowance for credit losses as a result of our inability to collect customer accounts receivable balances.

Changes in customer preferences have reduced, and may continue to reduce, demand for our products and services in certain markets. In addition, failure to manage changes in our relationships with our significant clients may have an adverse effect on our results of operations.

Many of the end markets in which our clients compete are experiencing changes due to technological progress and changes in customer preferences. In order to grow and remain competitive, we will need to continue to adapt to future changes in technology, enhance our existing offerings and introduce new offerings to address the changing demands of clients. If we are unable to continue to utilize new and existing technologies to adapt to new distribution methods and address changing customer preferences, our business may be adversely affected.

Technological developments and changing demands of clients may require additional investment in new equipment and technologies. We monitor changes in our clients' markets and develop new solutions to meet clients' needs. The development of such solutions may be costly and there is no assurance that these solutions will be accepted by our clients. If we are unable to adapt to technological changes on a timely basis or at an acceptable cost, clients' demand for our products and services may be adversely affected.

In addition, electronic delivery of documents and data, including the online distribution and hosting of media content, offer alternatives to traditional delivery of printed documents. Customers continue to accept electronic substitution in statement printing and forms while online and digital advertising is impacting clients' printed advertising spend. The extent to which customers will continue to accept electronic delivery is uncertain and it is difficult to predict future acceptance of these alternatives. Electronic delivery has adversely affected our products, such as forms and statement printing. To the extent that our clients and our client's customers and regulators continue to accept these alternatives, demand for our products and services may be further adversely affected.

During 2021, our five largest clients accounted for 12.9% of our net sales in the aggregate. There can be no assurance that our clients will continue to purchase our products in the same mix or quantities or on the same terms as in the past. The loss of or disruptions related to significant clients may result in a reduction in sales or change in the mix of products we sell to significant clients. This may adversely affect our results of operations, financial condition and cash flows.

Additionally, disputes with significant suppliers, including those related to pricing or performance, may adversely affect our ability to supply products to our clients and also our results of operations, financial condition and cash flows.

Our business is dependent upon brand reputation and the quality of our client support and services offerings. If we fail to offer effective client support and services, our brand reputation could be harmed and clients may not use our products and services, which may have an adverse effect on our results of operations.

A high level of client support and service is critical for the successful marketing and sale of our solutions and the maintenance and enhancement of our brand reputation. If we are unable to provide a level of client support and service to meet or exceed the expectations of our clients, we may experience a loss of clients and market share and a decline in our brand reputation which may result in reduced client demand for our products and services. Furthermore, our brand reputation may be impacted by a wide range of factors, some of which are out of our control, including actions of our competitors and third party providers and positive or negative publicity, any or all of which could adversely affect our operations.

We may be adversely affected by rising inflation, a decline in the availability of raw materials, supply chain disruptions, and labor shortages.

We are dependent on the availability of paper, ink, other raw materials, and labor to support our operations. During 2021, we have seen price increases from nearly all of our material suppliers in all categories. Notably, paper products have seen significant price increases primarily caused by supply shortages from key suppliers. The supply shortages have been caused in part by manufacturing capacity reductions, labor shortages and other supply chain disruptions. We, and our suppliers, have also experienced labor shortages and increased wage pressure for manufacturing workers due to current market conditions. Further, we experienced supply chain disruptions and shipping delays caused by container shortages in key domestic and international ports, including China. We expect these factors to continue for the foreseeable future.

Increases in the costs of our raw materials and labor may increase our costs and we may not be able to pass these costs on to clients through higher prices. Increases in the cost of materials may adversely affect clients' demand for our printing and related services. Other unforeseen developments in these markets may result in a decrease in the supply of paper, ink or other raw materials which may adversely affect our results of operations, financial position and cash flows.

The highly competitive market for our products and industry consolidation may continue to create adverse price pressures.

The markets for the majority of our product categories are highly fragmented and we have a large number of competitors. We believe excess capacity in our markets has caused downward price pressure and this trend is likely to continue. In addition, consolidation in the markets in which we compete may increase competitive price pressures due to competitors lowering prices.

We believe that selectively pursuing acquisitions is an important strategy for us. If our competitors are able to successfully combine with one another or otherwise consolidate, the competitive landscape would be significantly altered. Such consolidation may create stronger competitors with greater financial resources and broader manufacturing and distribution capabilities than our own, and, if we are not successful with our own efforts to consolidate or adapt effectively to increased competition, the resulting increase in competitive pressures may adversely affect our results of operations, financial position and cash flows.

Undetected errors or failures found in our products and services may result in loss of or delay in market acceptance of our products and services that may seriously harm our business.

Our products and services may contain undetected errors or scalability limitations at any point, but particularly when first introduced or as new versions are released. We frequently release new versions of our products and different aspects of our platform are in various stages of development. Despite testing by us and by current and potential clients, errors may not be found in new products and services until after commencement of commercial availability or use, resulting in a loss of or a delay in market acceptance, damage to our reputation, client dissatisfaction and reductions in net sales and margins, any of which may have an adverse effect on our results of operations, financial condition and cash flows.

Debt and liquidity risks

Adverse financial market conditions, our operating performance and our creditworthiness may limit our ability to obtain future financing and the cost of any such capital may be higher than in past periods.

We have a substantial amount of outstanding debt which could adversely affect our business, results of operations, financial condition and cash flows. Uncertainty and volatility in global financial markets, including from impacts of the COVID-19 pandemic, may cause financial institutions to fail, lenders to reduce lending or investors to reinvest in assets that are considered less risky. The failure of a financial institution that is a lender under our existing senior secured asset-based revolving credit facility (the “ABL Credit Facility”) would reduce its size unless another financial institution was willing to replace such commitments. Future capital markets transactions are dependent on our financial performance as well as market conditions, which may result in receiving financing on terms less favorable to us than our existing financings. In addition, our access to future financing and our ability to refinance existing debt will depend on a variety of factors such as our financial performance, the general availability of credit, our credit ratings and credit capacity at the time we pursue such financing.

Our current corporate credit ratings are below investment grade and, as a result, our financing costs may further increase and our ability to obtain financing may be limited. If adequate capital is not available to us on reasonable terms and our internal sources of liquidity prove to be insufficient, or if future financings require more restrictive covenants, such a combination of events could adversely affect our ability to (i) acquire new businesses or enter new markets, (ii) service or refinance our existing debt, (iii) pay dividends on common stock, (iv) make necessary capital investments, and (v) make other expenditures necessary for the ongoing conduct of our business.

Our ABL Credit Agreement limits our borrowing capacity to the value of certain of our U.S. assets. In addition, our obligations under our ABL Credit Agreement and Term Loan Credit Agreement along with our Secured Notes are secured by substantially all of the assets of the Company and our material domestic subsidiaries and lenders may exercise remedies against the collateral if an event of default occurs.

Our borrowing capacity under our ABL Credit Agreement is equal to the lesser of (i) \$650.0 million and (ii) a borrowing base formula based on the amount of U.S. accounts receivable, inventory, machinery, equipment and, if we were to so elect in the future, subject to the satisfaction of certain conditions, fee-owned real estate of the Company and our material domestic subsidiaries that are guarantors under the ABL Credit Agreement, subject to certain eligibility criteria and advance rates (collectively, the “Borrowing Base”). In the event of any material decrease in the amount of or appraised value of the assets in the Borrowing Base, our borrowing capacity would similarly decrease, which could adversely affect our business and liquidity.

If an event of a default occurs under our ABL Credit Agreement, the lenders’ commitment to extend further credit under our ABL Credit Agreement could be terminated, our outstanding obligations under the ABL Credit Agreement, our credit agreement for the \$550 million senior secured Term Loan B (the “Term Loan Agreement”)(collectively, the “Credit Agreements”) and the 6.125% Secured Notes due 2026 (the “Secured Notes”) could become immediately due and payable, outstanding letters of credit issued under our ABL Credit Agreement may be required to be cash collateralized, and remedies may be exercised against the collateral securing either or both of the Credit Agreements and the Secured Notes. If we are unable to borrow under our ABL Credit Agreement, we may not have the necessary cash resources to fund our operations or to meet scheduled repayments of other outstanding indebtedness and, if any event of default occurs under either Credit Agreement or the indenture for the Secured Notes, there is no assurance that we would have the cash resources available to repay such accelerated obligations, refinance such indebtedness on commercially reasonable terms, or at all, or cash collateralize our letters of credit issued under the ABL Credit Agreement, which would have a material adverse effect on our business, financial condition, results of operations and liquidity.

Restrictive covenants in our ABL Credit Agreement, Term Loan Credit Agreement, and the indenture for our Secured Notes could limit our financial and operating flexibility.

Our ABL Credit Agreement, Term Loan Credit Agreement, and the indenture for our Secured Notes contain various affirmative and negative covenants applicable to us and our subsidiaries. Certain restrictions on operations become applicable if our borrowing availability under the ABL Credit Agreement falls below certain thresholds. These restrictions could impose significant operating and financial limitations and restrictions on us, including restrictions on our ability to enter into particular transactions and to engage in other actions that we may believe are advisable or necessary for our business.

An increase in interest rates could have a material adverse effect on our business.

Borrowings under our Credit Agreements bear interest at rates that are calculated based on the London Interbank Offered Rate (LIBOR) or a base rate plus, in each case, an applicable margin which, in the case of the ABL Credit Agreement, is dependent on the average quarterly borrowing availability under our ABL Credit Agreement. As a result, we are exposed to risks associated with fluctuations in interest rates, including if the U.S. Federal Reserve raises its benchmark interest rate. We may utilize derivative financial instruments, such as interest rate swaps, to manage our interest rate risk. There can be no assurance, however, that increases in interest rates will not adversely affect our business, financial position and results of operations by causing an increase in interest expense. Significantly higher interest rates may also, among other things, reduce the availability and increase the cost of obtaining new debt and refinancing existing indebtedness, as well as negatively impact the market price of our common stock.

In July 2017 the United Kingdom Financial Conduct Authority (the “FCA”), which regulates LIBOR, announced that the FCA intended to stop compelling banks to submit rates for the calculation of LIBOR after 2021. On December 31, 2021, the ICE Benchmark Administration (IBA), which administers LIBOR, ceased publication of one-week and two-month U.S. dollar (USD) LIBOR. The IBA has indicated that it expects to continue publishing other USD LIBOR tenors until June 2023. The Federal Reserve Board, Federal Deposit Insurance Corporation and Office of the Comptroller of the Currency also required banks to cease entering into new contracts that use USD LIBOR as a reference rate after December 31, 2021. The potential cessation of USD LIBOR could cause market volatility or disruption, which could adversely affect our floating rate debt obligations, including obligations under our ABL Credit Agreement and Term Loan Agreement, our outstanding derivative financial instrument that utilizes LIBOR, and our overall cost of funding.

We may not be able to reduce or extinguish our material indebtedness, and as a result we may have increased financial leverage, which may adversely affect our business.

We have substantial indebtedness and our interest and principal payments are significant. In addition, our Term Loan Credit Agreement and the indenture for our Secured Notes require us to make prepayments with excess cash flow and asset sale proceeds in certain circumstances. If we are unable to reduce this indebtedness, we may continue to have increased financial leverage, which may limit or restrict our ability to operate our business. In addition, our ability to make payments on, repay or refinance, such debt, will depend largely upon our future operating performance.

Spinoff Risks

We may be contingently liable for certain liabilities related to the spin-off of LSC and DFIN

Subsequent to the spinoff of LSC and Donnelley Financial, we may be contingently liable for obligations under various operating leases for office, warehouse and manufacturing locations of LSC and Donnelley Financial. In the event that LSC or Donnelley Financial, or any successor lessee, fail to make lease payments or fail to pay other obligations under these lease agreements, we may be required to satisfy those obligations to the lessor. Our exposure to these potential contingent liabilities decreases over time as LSC and successor lessees and Donnelley Financial pay monthly lease obligations and as the leases expire. As of December 31, 2021, these potential contingent lease obligations were \$29.0 million and \$1.2 million for LSC and Donnelley Financial, respectively.

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 was subsequently acquired by a third party buyer (“the Buyer”). The Buyer assumed the majority of LSC’s existing leases. We will continue to be contingently liable for these leases until their termination or renewal.

We may be also liable for liabilities where we share joint and several liability with LSC and other members of the control group including certain environmental liabilities. Refer to Footnote 8 – *Commitments and Contingencies* to the Consolidated Financial Statements for further details.

The spinoff transactions of LSC and Donnelley Financial in October 2016 could result in significant tax liability.

We obtained an opinion from our outside legal counsel substantially to the effect that, among other things, the distributions in connection with the spinoff transactions qualify as tax-free distributions under the U.S. Internal Revenue Code of 1986, as amended (the “Code”). The opinion will not be binding on the IRS or the courts. Additionally, we have received a private letter ruling from the IRS concluding that certain limited aspects of the distributions will not prevent the distributions from satisfying certain requirements for tax-free treatment under the Code. The opinion and the private letter ruling rely on customary factual representations and assumptions, which if incorrect or inaccurate may jeopardize the ability to rely on such opinion and letter ruling.

If either or both of the distributions do not qualify for tax-free treatment for U.S. federal income tax purposes, then, in general, we would be subject to tax as if we had sold the common stock of such spun-off entity in a taxable sale for its fair value. In that case, we expect that RRD stockholders would be subject to tax as if they had received a distribution equal to the fair value of the spun-off entity’s common stock that was distributed to them, which generally would be treated first as a taxable dividend to the extent of our earnings and profits, then as a non-taxable return of capital to the extent of each holder’s tax basis in its Company common stock, and thereafter as capital gain with respect to any remaining value. We expect that the amount of any such taxes to RRD stockholders and us would be substantial if this were to occur.

Regulatory and taxation risks

Our operations are subject to political and regulatory risks in the countries in which we operate.

Our operations may be substantially affected by both domestic and international political or regulatory risk including general political conditions in the countries in which we operate; unexpected legal, regulatory or tax changes; governmental actions which have the effect of restriction on our business or opportunities or make it more expensive for us to operate in those jurisdictions; and changes in tax laws that would reduce net income due to withholding requirements or the imposition of tariffs or other restrictions.

In addition, potential political uncertainty in our developed markets, or the perception of such uncertainty, has had and may continue to have an adverse effect on global economic conditions and the stability of global financial markets. This may reduce global market liquidity and restrict the ability of key market participants to operate in certain financial markets. Any of these factors may adversely affect our results of operations, financial position and cash flows. Our success will depend, in part, on our ability to effectively anticipate and manage these and other risks associated with our domestic and international operations.

Changes in rules and regulations to which we are subject may increase our costs, which may adversely affect us.

We are subject to numerous rules and regulations, including, but not limited to, product safety, environmental and health and welfare benefit regulations. These rules and regulations may be changed by local, state or federal governments in countries in which we operate. Changes in these regulations may result in a significant increase in our costs to comply. Compliance with changes in rules and regulations may require increases to our workforce, increased cost for compensation and benefits, or investments in new or upgraded equipment. In addition, growing concerns about climate change, including the impact of global warming, may result in new regulations, including with respect to greenhouse gas emissions (including carbon dioxide) and/or “cap and trade” legislation. Compliance with new rules and regulations or changes in existing rules and regulations, as well as the need to address any violations thereof, may result in additional costs, which may adversely affect our results of operations, financial condition and cash flows.

Many of our clients are subject to rules and regulations requiring certain printed or electronic communications, governing the form of such communications and protecting the privacy of customers. For instance, our healthcare and insurance printing businesses are subject to such regulations. Changes in these regulations may impact clients’ business practices and may reduce demand for our products and services. Changes in such regulations may eliminate the need for certain types of communications altogether or may impact the quantity or format of such communications.

We are subject to taxation related risks in multiple jurisdictions.

We are a U.S.-based global company subject to tax in multiple U.S. and foreign tax jurisdictions. Significant judgment is required in determining our global provision for income taxes, deferred tax assets and liabilities and in evaluating our tax positions on a worldwide basis. While we believe our tax positions are consistent with the tax laws in the jurisdictions in which we conduct our business, it is possible that these positions may be overturned by jurisdictional tax authorities, which may have a significant impact on our global provision for income taxes.

Many countries are actively considering changes to existing tax laws that, if enacted, could increase our tax obligations in countries where we do business. If U.S. or other foreign tax authorities change applicable tax laws, our overall taxes could increase, which may adversely affect our business, results of operations, financial position and cash flows.

Operational risks

We may be unable to improve our operating efficiency rapidly enough to meet market conditions.

Because the markets in which we operate are highly competitive, we must continue to improve our operating efficiency in order to maintain or improve our profitability. There is no assurance that we will be able to do so in the future. In addition, the need to reduce ongoing operating costs may result in significant up-front costs to reduce workforce, close or consolidate facilities, or upgrade equipment and technology.

A decline in our Company's or our individual reporting units' expected profitability may result in the impairment of assets, including goodwill, other long-lived assets and deferred tax assets.

In prior years we have recorded significant goodwill and other long-lived asset impairments and continue to hold goodwill, other long-lived assets and deferred tax assets on our balance sheet. A decline in expected profitability may call into question the recoverability of our remaining goodwill, other long-lived tangible and intangible assets or deferred tax assets and require the write down or write off of these assets or, in the case of deferred tax assets, recognition of a valuation allowance through a charge to income. Such events have had and may continue to have an adverse effect on our results of operations and financial position.

Catastrophic events may damage or destroy our factories, distribution centers or other facilities, which may disrupt our business.

Natural disasters, conflicts, wars, terrorist attacks, fires or other catastrophic events may cause damage or disruption to our factories, distribution centers or other facilities, which may adversely affect our ability to manage logistics, cause delays in the delivery of products and services to our clients, and create inefficiencies in our supply chain. An event of this nature may also prevent us from maintaining ongoing operations and performing critical business functions. While we maintain backup systems and operate out of multiple facilities to reduce the potentially adverse effect of these types of events, a catastrophic event that results in the destruction of any of our major factories, distribution centers or other facilities would affect our ability to conduct normal business operations, which may adversely affect our results of operations, financial position and cash flows.

Human capital risks

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

Our success depends, in part, on our general ability to attract, develop, motivate and retain highly skilled and diverse workforce. The loss of a significant number of our employees or the inability to attract, hire, develop, train and retain skilled personnel, particularly during strong economic periods, may have an adverse effect on us. Various locations may encounter competition with other manufacturers for skilled labor. Many of these competitors may be able to offer significantly greater compensation and benefits or more attractive lifestyle choices than we offer. In addition, many members of our management team have significant industry experience that is valuable to our competitors. We enter into non-solicitation and, as appropriate, non-competition agreements with certain of our executive officers, prohibiting them contractually from soliciting our clients and employees and from leaving and joining a competitor within a specified period. Our inability to hire and retain talented employees or the loss of senior members of our senior management team may result in challenges or temporary difficulty in managing our business, which may adversely affect our results of operations, financial condition or cash flows.

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

We provide health care and other benefits to employees and retirees. Costs for health care have increased more rapidly than general inflation in the U.S. economy. If this trend in health care costs continues, our cost to provide such benefits may increase, adversely affecting our profitability. Changes to health care regulations in the U.S. may also increase our cost of providing such benefits.

Changes in market conditions or lower returns on assets may increase required pension and OPEB plan contributions in future periods.

The funded status of our pension and OPEB plans is dependent upon many factors, including returns on invested assets and the level of certain market interest rates. Market conditions may lead to changes in the discount rates used to value the year-end benefit obligations of the plans, which may partially mitigate or worsen the effects of lower asset returns. If adverse market conditions were to continue for an extended period of time, our costs and required cash contributions associated with pension and OPEB plans may substantially increase in future periods, adversely impacting our financial condition.

Information technology risks

Our services depend on the reliability of computer systems we and our vendors maintain. If our systems fail or are unreliable, our operations may be adversely affected.

We depend on our information technology and data processing systems to operate our business, and a significant malfunction or disruption in the operation of our systems may disrupt our business and adversely affect our ability to operate and compete in the markets we serve. These systems include systems that we own and operate, as well as those systems of our vendors. Such systems are susceptible to malfunctions and interruptions due to equipment damage and power outages and a range of other hardware, software and network problems, as well as human error, employee misconduct, hacking and cybercrime. We also periodically upgrade and install new systems, which if installed or programmed incorrectly, may cause significant disruptions. If a disruption, such as the security event identified in December 2021 described elsewhere in this Annual Report, occurs, we may incur further losses and costs for interruption of our operations, which may adversely affect our results of operations, financial condition and cash flows.

We have suffered and may in the future suffer a systems intrusion in our technical environment. If our efforts to protect the security of corporate information are unsuccessful, any such further failures may result in significant costs to us to investigate and remediate the data-breach, to defend against private litigation or government enforcement actions or to pay penalties. Any such failures may have a material adverse effect on our results of operations, financial condition, cash flows and reputation.

In December 2021, we identified a systems intrusion in our technical environment. In response, we promptly implemented a series of containment measures to address the situation, including activating our incident response protocols, shutting down servers and systems and commencing a forensic investigation. We also engaged cybersecurity experts to examine the incident and oversee the implementation of appropriate remedial actions. However, we became aware in mid-January 2022 that certain of our corporate data, the nature of which is continuing to be actively examined, was accessed and exfiltrated. To the extent any confidential client data is found in this data, the Company has and will continue to inform impacted clients within a reasonable time. We also notified and continue to work with appropriate law enforcement authorities. As a precautionary measure, we isolated a portion of our technical environment in an effort to contain the intrusion.

At this time, we have restored the affected systems and returned to normal levels of operations, and believe that the steps taken to isolate and remediate the identified threat have been effective. While we do not currently believe that this security event has or will result in a material adverse impact to the Company, data review and assessment related to this event remain ongoing, and we may determine in the future that such event had or will have a material adverse impact on our business, results of operations, financial condition or cash flows.

Maintaining the confidentiality, integrity and availability of our systems, software and solutions is an issue of critical importance for us and our clients and users, who rely on us to protect the confidentiality of certain information they provide us, particularly as a significant number of our employees continue to work from home during the COVID-19 pandemic. Many of our clients' industries are highly regulated and have established standards and requirements for safeguarding the confidentiality, integrity and availability of information relating to their businesses and clients. Confidential and sensitive information stored in our systems are susceptible to cybercrime, or threats of intentional disruption, which are increasing in sophistication and frequency. Exposure of the information maintained on our systems due to human error, breach of our systems through hacking or cybercrime, a leak of confidential information due to employee misconduct or other such events may damage our reputation, subject us to regulatory enforcement action and cause significant reputational harm for our clients, all of which may materially affect our results of operations, financial condition and cash flows. In addition, as security threats continue to evolve and increase in terms of sophistication, we may invest additional resources in the security of our systems. The level of investment could also adversely affect our results of operations, financial condition and cash flows.

We have in the past acquired, and intend in the future to acquire, other businesses, and we 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 our 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 we 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 our day-to-day operations. In addition, the process of integrating operations may cause an interruption of, or loss of momentum in, the activities of one or more of our businesses and the loss of our key personnel or the acquired businesses. Further, employee uncertainty and lack of focus during the integration process may disrupt our operations or the operations of the acquired businesses. Our strategy is, in part, predicated on our ability to realize cost savings and to increase net sales through the acquisition of businesses that add to the breadth and depth of our products and services. Achieving these cost savings and net sales increases is dependent upon a number of factors, many of which are beyond our control. In particular, we may not be able to realize the benefits of more comprehensive product and service offerings, anticipated integration of sales forces, asset rationalization and systems integration.

Risks to operating in foreign countries

We may be more vulnerable to adverse events and trends associated with operations outside the U.S.

We have significant operations outside the U.S. Conducting business outside the U.S. subjects us to a number of additional risks and challenges, including:

- periodic changes in a specific country's or region's economic conditions, such as recession;
- compliance with a wide variety of domestic and foreign laws and regulations (including those of municipalities or provinces where we have operations) and unexpected changes in those laws and regulatory requirements, including uncertainties regarding taxes, social insurance contributions and other payroll taxes and fees to governmental entities, tariffs, quotas, export controls, export licenses and other trade barriers;
- unanticipated restrictions on our ability to sell to foreign clients where sales of products and the provision of services may require export licenses;
- certification requirements;
- fluctuations in foreign currency exchange rates, including those resulting from inflation and currency devaluation activities;
- inadequate protection of intellectual property rights in some countries;
- effects of the United Kingdom's exit from the European Union and related potential disruption to trade;
- potential political, legal and economic instability, foreign conflicts, terrorism and the impact of regional and global infectious illnesses in the countries in which we and our clients, suppliers and contract manufacturers are located;
- difficulties and costs of staffing and managing international operations across different geographic areas and cultures, including assuring compliance with the U.S. Foreign Corrupt Practices Act and other U. S. and foreign anticorruption laws; and
- fluctuations in freight rates and transportation disruptions.

These factors, individually or in combination, may impair our ability to effectively deliver our products and services, result in unexpected expenses, or cause an unexpected decline in the demand for our products in certain countries or regions. Specifically with respect to our operations in China, our financial performance may be adversely impacted as a result of the following risks, among others, regulation of foreign investment and business activities by the Chinese government, including scrutiny of foreign companies, may limit our ability to expand our business in China; uncertainties with respect to the legal system in China may limit the legal protections available to us in China; government restrictions on the remittance of currency out of China may limit the ability of any subsidiary we may establish in China to pay dividends and make other distributions to us; unfavorable results of ongoing trade negotiations between the U.S. and China, including potential unfavorable taxes and tariffs may limit our operations in China or make them more costly.

We are exposed to significant risks related to potential adverse changes in currency exchange rates.

We are exposed to the impact of foreign currency fluctuations based on our global operations. Although the results in our Consolidated Financial Statements are reported in U.S. dollars, we also earn revenues, pay expenses, own assets and incur liabilities in various foreign currencies. Fluctuations in currency exchange rates have had, and will continue to have, an impact on our results expressed in U.S. dollars. We may enter into derivative instruments, such as foreign currency forward contracts, to hedge certain exposures to exchange rate fluctuations. There can be no assurance, however, that our efforts at hedging will be successful and that currency exchange rate fluctuations will not adversely affect our results of operations, financial position and cash flows.

We also face risks arising from the imposition of exchange controls, which may limit our ability to convert foreign currencies into U.S. dollars or to remit dividends and other payments by our foreign subsidiaries or businesses located in or conducted within a country imposing controls.

Distribution related risks

Changes in postal rates, regulations and delivery structure may adversely affect demand for our products and services.

Postal costs are a significant component of many of our clients' cost structure and postal rate changes can influence the number of pieces and types of mailings that our clients mail. In accordance with the 2006 PAEA, the PRC approved a USPS filing for a CPI based average price increase of 1.5% on average for the Market Dominant mail classes, which took effect January 24, 2021.

Additionally, as required on the 10-year anniversary of PAEA, the PRC initiated a comprehensive review of PAEA on December 20, 2016, to determine if the current system for regulating rates and classes for market-dominant products is still achieving the original objectives of the law. Accordingly, the PRC concluded that the current system was not meeting all of PAEA's original objectives and after careful consideration of mailing industry stakeholder input, issued its final order on November 30, 2020. The final PRC order provides the USPS with additional discretionary rate-making authority, above CPI, estimated at 5.5 %, that was used during 2021 and could continue to be used during 2022.

The impact of any restructuring of the USPS, which may require legislative action, cannot currently be estimated. If implemented, certain changes may impact our clients' ability or willingness to communicate by mail. Declines in print volumes mailed would have an adverse effect on our results of operations, financial condition and cash flows.

Increased transportation costs and changes in the relationships with independent shipping companies may have an adverse effect on our business.

We rely upon third party carriers for timely delivery of our product shipments. As a result, we are subject to carrier disruptions and increased costs due to factors that are beyond our control, including employee strikes, inclement weather and increased fuel costs. Any failure to deliver products to our clients in a timely and accurate manner may damage our reputation and brand and may cause us to lose clients. If our relationship with any of these third party carriers is terminated or impaired, or if any of these third parties are unable to ship products for us, we would be required to use alternative, and possibly more expensive, carriers for the shipment of products. We may be unable to engage alternative carriers on a timely basis or on terms favorable to us, if at all, which may have an adverse effect on our results of operations, financial condition and cash flows.

Furthermore, shipping costs represent a significant operational expense for us. Changes in shipping terms, or the inability of these third party shippers to perform effectively (whether as a result of mechanical failure, casualty loss, labor stoppage, or any other reason), may have an adverse effect on our results of operations, financial condition and cash flows. Additionally, deterioration of the financial condition of these third-party carriers may have an adverse effect on our shipping costs. Any future increases in shipping rates may have an adverse effect on our results of operations, financial condition and cash flows, particularly if we are unable to pass on these higher costs to our clients.

In addition, the onset of COVID-19 and the resulting rapid increase in eCommerce, especially residential delivery, caused significant increases in demand for both small parcel and trucking transportation services across all markets. Capacity and service challenges for the USPS and all other carriers, created an operating environment that included transit delays, suspension of guaranteed services, peak season surcharges, increased spot rates and allocated or restricted shipping. We expect high demand will continue to be a challenge to transportation providers in the future. Increased cost and order fulfillment limitations may have an adverse effect on our results of operations, financial condition and cash flows.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have no unresolved written comments from the SEC staff regarding our periodic or current reports under the Securities Exchange Act of 1934.

ITEM 2. PROPERTIES

Our corporate office is located in leased office space in Chicago, Illinois. As of December 31, 2021, we leased or owned 119 U.S. facilities, some of which had multiple buildings and warehouses, and these U.S. facilities encompassed approximately 12.7 million square feet. We leased or owned 57 international facilities, some of which had multiple buildings and warehouses, encompassing approximately 5.2 million square feet primarily in Asia, Canada, Europe and Latin America. Of our U.S. and international facilities, approximately 7.4 million square feet of space was owned, while the remaining 10.5 million square feet of space was leased.

ITEM 3. LEGAL PROCEEDINGS

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

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

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS (As of February 24, 2022)

<u>Name and Positions with the Company</u>	<u>Age</u>	<u>Business Experience</u>
Daniel L. Knotts President and Chief Executive Officer	57	Since October 2016, Mr. Knotts has served as the Chief Executive Officer of RRD and a member of our board of directors.
Al R. Dupont Executive Vice President and Chief Commercial Officer	56	Since June 2021, Mr. Dupont has served as RRD's Executive Vice President, Chief Commercial Officer. Prior to this, Mr. Dupont was our Group President of National Sales from January 2018 to May 2021, and prior to that was Senior Vice President of Enterprise Sales from October 2016 to December 2017.
David M. Houck Executive Vice President and Chief Information Officer	53	Since July 2021, Mr. Houck has served as RRD's Executive Vice President, Chief Information Officer. Prior to joining RRD in April 2021, Mr. Houck served as Chief Information Officer at LSC Communications, Inc. from 2016 to December 2020.
John Pecaric President, RRD Business Services and Marketing Solutions	59	Since May 2021, Mr. Pecaric has served as President, RRD Business Services and Marketing Solutions. Prior to that, Mr. Pecaric served as President of RRD Business Services from 2018 to May 2021 and prior to this, Mr. Pecaric was our Executive Vice President, Chief Commercial Officer and President of International from 2016 to 2018.
Terry D. Peterson Executive Vice President and Chief Financial Officer	57	Since October 2016, Mr. Peterson has served as RRD's Executive Vice President and Chief Financial Officer.
Michael J. Sharp Senior Vice President, Controller and Chief Accounting Officer	60	Since November 2017, Mr. Sharp has served as RRD's Senior Vice President, Controller and Chief Accounting Officer. Prior to joining RRD, Mr. Sharp served in various capacities at AAR Corporation including Vice President and Chief Financial Officer from 2015 to 2016.
Deborah L. Steiner Executive Vice President, Chief Administrative Officer, General Counsel, Secretary and Chief Compliance Officer	51	Since April 2020, Ms. Steiner has served as RRD's Executive Vice President, Chief Administrative Officer, General Counsel, Secretary and Chief Compliance Officer. Prior to this, Ms. Steiner was our Executive Vice President, General Counsel, Secretary and Chief Compliance Officer from October 2016 to April 2020.

PART II

ITEM 5. MARKET FOR R. R. DONNELLEY & SONS COMPANY'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is listed and traded on the New York Stock Exchange (NYSE) under the symbol "RRD". As of February 18, 2022, there were 3,373 stockholders of record of our common stock.

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased (a)	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
October 1, 2021 - October 31, 2021	—	\$ —	—	\$ —
November 1, 2021 - November 30, 2021	—	—	—	—
December 1, 2021 - December 31, 2021	1,831,374	10.72	—	—
Total	<u>1,831,374</u>		<u>—</u>	

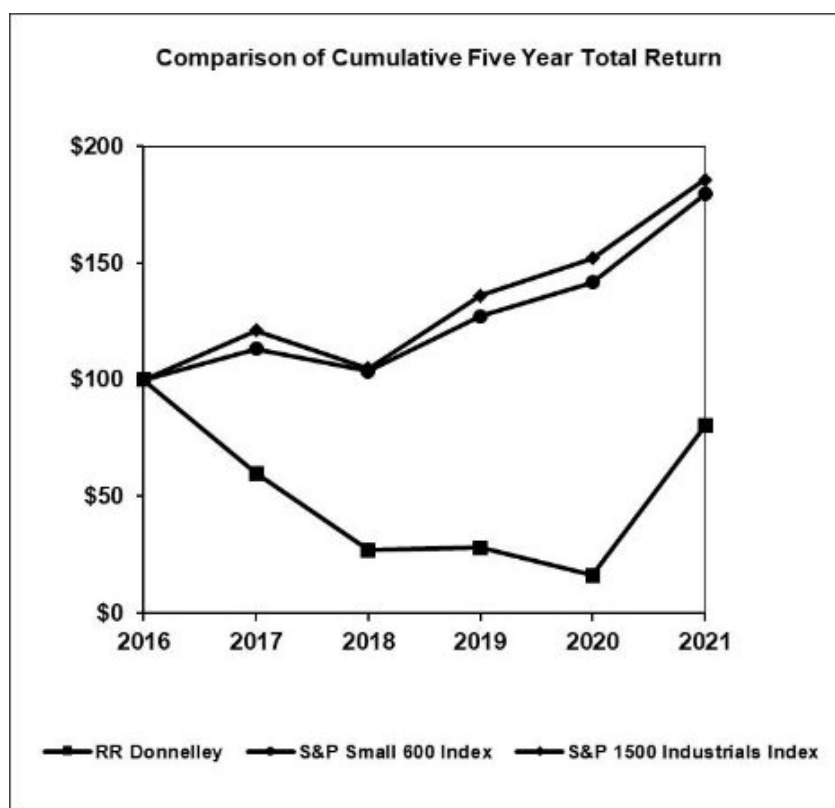
(a) Shares withheld for tax liabilities upon vesting of equity awards

EQUITY COMPENSATION PLANS

For information regarding equity compensation plans, see Item 12 of Part III of this Annual Report on Form 10-K.

PEER PERFORMANCE TABLE

The graph below compares five-year returns of our common stock with those of the S&P SmallCap 600 and the S&P 1500 Industrials Index. The comparison assumes an initial investment of \$100 on December 31, 2016 and that all dividends have been reinvested.



Company Name/Index	Base Period 2016	Fiscal Years Ended December 31,				
		2017	2018	2019	2020	2021
RR Donnelley	100	60.03	26.95	27.94	16.14	80.42
S&P SmallCap 600	100	113.23	103.63	127.24	141.60	179.58
S&P 1500 Industrials Index	100	121.06	104.87	136.12	152.03	185.75

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

The following discussion of our financial condition and results of operations should be read together with the Consolidated Financial Statements and Notes to those statements included in Item 15 of Part IV of this Annual Report on Form 10-K.

Business

For a description of our business, segments and product and service offerings, see Item 1, *Business*, of Part I of this Annual Report on Form 10-K.

Our product and service offerings primarily consist of commercial print, packaging, statements, direct marketing, labels, digital print and fulfillment, supply chain management, forms, business process outsourcing, and digital and creative solutions.

Merger Agreement

On December 14, 2021, we entered into a definitive merger agreement under which we agreed to be acquired by affiliates of Chatham Asset Management, LLC (“Chatham”), a leading private investment firm. Under the terms of the merger agreement, an affiliate of Chatham will acquire all of the outstanding shares of RRD common stock not already owned by Chatham, and RRD stockholders will receive \$10.85 per share in cash for each share of RRD common stock. All regulatory approvals have been obtained and at a special meeting on February 23, 2022, RRD’s stockholders approved the proposed merger. The merger with Chatham is expected to close on February 25, 2022. Upon completion of the transaction, RRD’s shares will no longer trade on the New York Stock Exchange and RRD will become a private company.

Discontinued Operations

On November 2, 2020, we sold DLS Worldwide and on November 3, 2020 we sold International Logistics, which represented the remaining parts of the broader Logistics business and were components of the Business Services reporting segment, for a cash purchase price of \$225.0 million and \$13.0 million respectively, subject to customary working capital adjustments. These transactions are part of our strategy to optimize our portfolio and reduce debt. As part of our plan, we previously sold the Print Logistics business in July 2018 and the Courier Logistics business in March 2020. Accordingly, we have reflected the Print Logistics business, Logistics Courier business, the DLS Worldwide business, and the International Logistics business as discontinued operations. The financial results of these businesses have been excluded from continuing operations and segment results for all periods presented unless otherwise noted. Refer to *Note 2 – Discontinued Operations* to our Consolidated Financial Statements for additional information.

Executive Overview

Response to COVID-19

During 2021 and 2020, the COVID-19 pandemic created, and continues to create, significant business challenges for companies around the world, including many of our clients across the broad number of industries we serve. In response to the pandemic, we established a formal operating plan that we are utilizing to manage our business through this challenging global business environment. Our operating plan consists of three clear priorities: to protect the health and safety of our employees, to sustain operational and supply chain continuity, and to effectively manage our business performance and liquidity throughout this very volatile period.

EMPLOYEES HEALTH AND SAFETY

We are continually evolving our policies and procedures to adhere to the latest best practices being provided by the Centers for Disease Control (“CDC”) and World Health Organization (“WHO”). Our cross-functional COVID Task Force created at the onset of the pandemic has developed safety measures, policies, and procedures for our workplace. We have implemented flexible working policies, including telecommuting and staggered shifts, while allowing for voluntary leaves of absence. We have encouraged vaccinations and recently have begun to welcome employees back into our offices using a cautious approach. We continue to enforce social distancing policies within all of our facilities, follow local and state guidelines concerning face coverings, and provide training for adherence to personal hygiene best practices in line with CDC and WHO guidelines.

SUPPLY CHAIN CONTINUITY

We have activated our business continuity plans and are leveraging our strong supply chain partnerships to continue to meet the ongoing needs of our 25,000 global clients. We remain fully operational across the 28 countries in which we operate.

BUSINESS IMPACT

Although the COVID-19 pandemic continued to create challenges in 2021, we believe that there are three primary factors that are helping mitigate the top line impact from the pandemic. These factors include our diverse portfolio of products and services, the lack of client concentration, and the products and services we have introduced to meet the evolving needs of our clients.

The extent to which the pandemic will continue to impact our business, results of operations, financial position and cash flows will depend on future developments which remain highly uncertain and cannot be fully predicted or estimated at this time. However, amidst the global uncertainty posed by COVID-19, we are positioning the Company to weather economic uncertainty and protect the short and long-term interests of our stakeholders. Continuing into 2022, we remain laser-focused on lowering our cost structure and on maintaining a sufficient level of liquidity.

2021 OVERVIEW

Net sales for the year ended December 31, 2021 were \$4,963.7 million, an increase of \$197.4 million, or 4.1%, compared to the year ended December 31, 2020. Net sales increased \$50.0 million due to favorable changes in foreign exchange rates and were unfavorably impacted by \$6.5 million due to the Chile business closure in 2020. Net sales also increased due to higher volume reflecting strengthening demand for many of our products and services and higher prices as we attempt to recover inflationary cost increases. Notably, higher demand for books and trading cards contributed to the growth in our Commercial Print and Packaging products. The increase also reflects continued recovery from the COVID-19 pandemic, partially offset by large, non-recurring pandemic-related orders in 2020 and the Census project, which was fully completed in the third quarter of 2020.

Income from operations for the year ended December 31, 2021 was \$163.5 million, an increase of \$55.4 million compared to the year ended December 31, 2020. The increase was primarily driven by higher sales, cost control initiatives and lower restructuring and impairment expenses, partially offset by merger related expenses and an unfavorable impact of foreign exchange rates on expenses.

We continue to assess opportunities to reduce our cost structure and enhance productivity throughout the business. During the year ended December 31, 2021, we realized significant cost savings from recent and previous restructuring activities including the reorganization of administrative and support functions across all segments, several facility consolidations, and asset rationalization. These savings were partially offset by higher variable incentive compensation and the effect of unfavorable exchange rates on expenses. Selling, general and administrative expenses (exclusive of depreciation and amortization) increased by \$3.1 million, or 0.5%, for the twelve months ended December 31, 2021 compared to the same period in 2020 reflecting higher sales and increased compensation expense, partially offset by cost control initiatives.

Net cash provided by operating activities for the year ended December 31, 2021 was \$92.1 million as compared to \$149.8 million for the year ended December 31, 2020. The decrease in operating cash flow in 2021 was primarily driven by \$44.2 million of merger related cash payments including accelerated incentive compensation, the payment of a break fee and other professional fees. Operating cash flow was also impacted by \$31.1 million of LSC bankruptcy related payments primarily associated with lump sum settlements of two MEPP plans, and a \$17.5 million repayment of payroll taxes that were deferred in 2020 as part of the CARES Act. Operating cash flow also decreased due to working capital investments, particularly inventory, higher incentive compensation payments, and a \$9.2 million payment to terminate certain interest rate swaps, partially offset by lower restructuring, tax and interest payments.

OUTLOOK

Vision and Strategy

We work with our clients to create, manage, deliver and optimize their multichannel communications strategies. We have and will continue to develop our creative and design, content management, digital and print production, supply chain management and distribution services to address our clients' evolving needs.

Our global platform provides differentiated solutions for our clients through our broad range of complementary communications services and innovative leadership in both conventional print and digital technologies. This platform has enabled RRD to develop strong client relationships, and we are focused on expanding these relationships to a broader range of our offerings. The flexibility of our platforms enhances the value we deliver to our clients and we intend to expand our capabilities in order to make it easier for clients to manage their full range of communication needs.

We believe productivity improvements and cost reductions are critical to our competitiveness. We continue to implement strategic initiatives across each of our segments to reduce our overall cost structure and enhance productivity primarily through restructuring which includes consolidations, reorganizations and integrations of operations, streamlining of administrative and support activities, and asset rationalization.

We seek to deploy our capital using a balanced approach in order to ensure financial flexibility and provide returns to stockholders. Our near-term priority for capital deployment is principal and interest payments on our debt obligations. We believe that a strong financial condition is important to clients focused on establishing or growing long-term relationships.

We use several key indicators to gauge progress toward achieving these objectives. These indicators include organic sales growth, operating margins, cash flow from operations and capital expenditures. We target long-term net sales growth, while improving operating margins by achieving productivity improvements that offset the impact of price declines and cost inflation. Cash flows from operations are targeted to be stable over time, but in any given year can be significantly impacted by the timing of non-recurring or infrequent receipts and expenditures, the level of required pension and OPEB plan contributions, the timing of tax payments and the impact of working capital changes.

We face many challenges and risks as a result of competing in highly competitive global markets. Refer to Item 1A, *Risk Factors*, of Part I of this Annual Report on Form 10-K for further discussion.

RESULTS OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2021 AS COMPARED TO THE YEAR ENDED DECEMBER 31, 2020

Consolidated

The following table shows the results of operations for the years ended December 31, 2021 and 2020:

	Year Ended December 31,		\$ Change	% Change
	2021	2020		
	(in millions, except percentages)			
Net sales	4,963.7	4,766.3	197.4	4.1%
Cost of sales	3,994.9	3,789.2	205.7	5.4%
Gross profit	968.8	977.1	(8.3)	(0.8%)
Selling, general and administrative expenses (exclusive of depreciation and amortization)	600.6	597.5	3.1	0.5%
Restructuring, impairment and other charges-net	33.3	100.0	(66.7)	(66.7%)
Depreciation and amortization	130.5	145.7	(15.2)	(10.4%)
Other operating expense	40.9	25.8	15.1	58.5%
Income from operations	\$ 163.5	\$ 108.1	\$ 55.4	51.2%

Continuing Operations

Net sales for the year ended December 31, 2021 increased \$197.4 million, or 4.1%, to \$4,963.7 million versus the same period in 2020. Net sales increased \$50.0 million due to favorable changes in foreign exchange rates and were unfavorably impacted by \$6.5 million due to the Chile business closure in 2020. In addition to these factors, net sales increased due to higher volume reflecting strengthening demand for many of our products and services. Notably, higher demand for e-commerce sales have contributed to the growth in our Packaging and Labels products and higher demand for books and cards have contributed to the growth of our Commercial Print and Packaging products. The increase also reflects continued recovery from the COVID-19 pandemic, partially offset by the Census project, which was fully completed in the third quarter of 2020. Higher prices from our efforts to recover inflationary cost increases also contributed to the net sales increase.

Cost of sales increased \$205.7 million, or 5.4%, for the year ended December 31, 2021 versus the same period in 2020, primarily due to higher volume and higher cost of raw materials. As a percentage of net sales, cost of sales increased slightly for the twelve months ended December 31, 2021 versus the same period in 2020.

Gross profit decreased \$8.3 million to \$968.8 million for the year ended December 31, 2021 versus the same period in 2020. Gross margin decreased from 20.5% to 19.5% for the twelve months ended December 31, 2021 versus the same period in 2020, primarily reflecting the impact of unfavorable foreign exchange rates on expenses and rising costs of raw materials.

Selling, general and administrative expenses increased \$3.1 million to \$600.6 million for the year ended December 31, 2021 versus the same period in 2020, primarily as a result of higher volume, higher incentive compensation expense, partially due to the merger and the impact of a higher stock price on certain cash-settled incentive awards, and the impact of unfavorable exchange rates on expenses, partially offset by cost control initiatives. As a percentage of net sales, selling, general and administrative expenses decreased from 12.5% in the prior year to 12.1% in 2021.

For the year ended December 31, 2021, net restructuring, impairment and other charges decreased \$66.7 million to \$33.3 million versus the year ended December 31, 2020. The decrease was primarily driven by lower restructuring activity, gains on sale of several facilities, including the Chile facility, which was sold in the fourth quarter of 2021, and lower expenses related to LSC MEPP liabilities.

Depreciation and amortization decreased \$15.2 million to \$130.5 million for the year ended December 31, 2021 versus the same period in 2020, primarily due to lower capital spending in recent years compared to historical levels. Depreciation and amortization included \$18.9 million and \$19.3 million of amortization of other intangible assets related to client relationships, trade names, trademarks, licenses and agreements for the twelve months ended December 31, 2021 and 2020, respectively.

Other operating expense for the year ended December 31, 2021 was \$40.9 million compared to \$25.8 million for the same period in 2020. Other operating expenses in 2021 primarily included expenses related to the ongoing SEC and DOJ investigations, as well as a \$12.0 million merger agreement break fee paid to Atlas River Parent Inc. (“Atlas”) and other professional fees related to the planned merger. The prior year included expenses related to the ongoing SEC and DOJ investigations, as well as a \$2.9 million loss on a business disposition.

Income from operations for the year ended December 31, 2021 increased \$55.4 million from 2020 to \$163.5 million as a result of the factors discussed above.

	Year Ended December 31,		\$ Change	% Change
	2021	2020		
	(in millions, except percentages)			
Interest expense-net	\$ 127.6	\$ 135.1	\$ (7.5)	(5.6%)
Investment and other income-net	(19.9)	(14.1)	(5.8)	41.1%
Loss on debt extinguishment	7.1	3.0	4.1	136.7%

Net interest expense decreased by \$7.5 million to \$127.6 million for the year ended December 31, 2021 versus the same period in 2020. Net interest expense included \$9.2 million related to the termination of certain interest rate swaps in the second quarter of 2021. Excluding the effects of the swap termination, our interest expense decreased approximately \$16.7 million, primarily due to prior repurchases and repayment of higher interest rate debt and lower average borrowings and interest rates on the ABL Credit Facility.

Investment and other income, net for the years ended December 31, 2021 and 2020 was \$19.9 million and \$14.1 million, respectively, and is principally comprised of net pension and OPEB income.

Loss on debt extinguishment for the year ended December 31, 2021 was \$7.1 million primarily due to costs related to the partial repayment of the Term Loan in the second quarter of 2021. Loss on debt extinguishment for the year ended December 31, 2020 was \$3.0 million. See Note 11, *Debt*, to the Consolidated Financial Statements for further discussion.

	Year Ended December 31,		\$ Change	% Change
	2021	2020		
	(in millions, except percentages)			
Income (loss) from continuing operations before income taxes	\$ 48.7	\$ (15.9)	\$ 64.6	nm
Income tax expense	44.9	10.0	34.9	nm
Effective income tax rate	92.2%	62.9%		

For 2021, we continue to report the tax impact of limitations on our interest expense deduction. Non-deductible interest expense will be carried forward as a deferred tax asset; however, it is more likely than not that the benefit of the deferred tax asset will not be fully realized and a full valuation allowance was recorded. Also included in 2021 is the tax impact of non-deductible compensation.

Included in 2020 is the impact from the surrender of corporate owned life insurance policies as well as tax benefits from additional interest expense deductions as result of the CARES Act and additional tax guidance issued in 2020.

Discontinued Operations

Net income from discontinued operations was \$0.6 million for the twelve months ended December 31, 2021 compared to \$124.9 million for the twelve months ended December 31, 2020. The net income from discontinued operations for the twelve months ended December 31, 2021 reflects the settlement of certain contingencies associated with the business divestitures and final net working capital adjustments. Net income from discontinued operations in 2020 includes an after-tax net gain of \$127.4 million (tax of \$10.6 million) recorded on the sale of three Logistics businesses sold during 2020, partially offset by a \$20.6 million non-cash charge related to impairment of goodwill recorded in the first quarter of 2020.

Net income attributable to RRD common stockholders for the year ended December 31, 2021 was \$3.7 million compared to \$98.5 million for the year ended December 31, 2020.

Information by Segment

Business Services

	Year Ended December 31,	
	2021	2020
	(in millions, except percentages)	
Net sales	\$ 3,909.5	\$ 3,685.2
Income from operations	292.4	227.9
Operating margin	7.5%	6.2%
Restructuring, impairment and other charges-net	7.0	21.4

Net sales for the Business Services segment for the year ended December 31, 2021 were \$3,909.5 million, an increase of \$224.3 million, or 6.1%, compared to 2020. Net sales increased \$50.0 million due to favorable changes in foreign exchange rates and were unfavorably impacted by \$6.5 million due to the Chile business closure in 2020. Net sales also increased due to higher volume and higher prices reflecting strengthening demand for many of our products and services. Notably, higher demand for e-commerce sales have contributed to the growth in our Packaging and Labels products and higher demand for books and cards have contributed to the growth of our Commercial Print products. The increase also reflects continued recovery from the COVID-19 pandemic, partially offset by one-time pandemic related orders in 2020, primarily within our Supply chain management offerings and continued low demand of Statement printing partially resulting from secular decline accelerated by the COVID-19 pandemic. The following table summarizes net sales by products and services in the Business Services segment:

Products and Services	Year Ended December 31,			
	2021	2020	\$ Change	% Change
	(in millions, except percentages)			
Commercial print	\$ 1,535.5	\$ 1,357.7	\$ 177.8	13.1%
Packaging	\$ 770.5	687.6	82.9	12.1%
Labels	\$ 532.9	496.6	36.3	7.3%
Statements	\$ 430.0	441.6	(11.6)	(2.6%)
Supply chain management	\$ 279.7	329.9	(50.2)	(15.2%)
Forms	\$ 195.3	202.4	(7.1)	(3.5%)
Business process outsourcing	\$ 165.6	169.4	(3.8)	(2.2%)
Total Business Services	<u>\$ 3,909.5</u>	<u>\$ 3,685.2</u>	<u>\$ 224.3</u>	6.1%

Business Services segment income from operations increased \$64.5 million to \$292.4 million for the year ended December 31, 2021 compared to the same period in 2020, primarily due to increased volume, increased prices, cost reductions and lower restructuring, impairment and other expenses, partially offset by the impact of unfavorable foreign exchange rates on expenses of \$29.5 million and inflation.

Marketing Solutions

	Year Ended December 31,	
	2021	2020
	(in millions, except percentages)	
Net sales	\$ 1,054.2	\$ 1,081.1
Income from operations	61.5	56.3
Operating margin	5.8%	5.2%
Restructuring, impairment and other charges-net	7.5	9.9

Net sales for the Marketing Solutions segment for the year ended December 31, 2021 were \$1,054.2 million, a decrease of \$26.9 million, or 2.5%, compared to 2020. Net sales decreased due to lower volume in direct marketing attributable to the 2020 Census contract, which was fully completed in the third quarter of 2020, partially offset by higher order volume reflecting continued recovery from the COVID-19 pandemic. The following table summarizes net sales by products and services in the Marketing Solutions segment:

Products and Services	Year Ended December 31,			
	2021	2020	\$ Change	% Change
	(in millions, except percentages)			
Direct marketing	\$ 534.4	\$ 555.4	\$ (21.0)	(3.8%)
Digital print and fulfillment	\$ 431.8	425.7	6.1	1.4%
Digital and creative solutions	\$ 88.0	100.0	(12.0)	(12.0%)
Total Marketing Solutions	<u>\$ 1,054.2</u>	<u>\$ 1,081.1</u>	<u>\$ (26.9)</u>	(2.5%)

Marketing Solutions segment income from operations increased \$5.2 million to \$61.5 million for the year ended December 31, 2021 compared to the same period in 2020, primarily due to the favorable impact of cost control initiatives and lower restructuring expenses, partially offset by lower volumes and inflation.

Corporate

Corporate operating expenses in the year ended December 31, 2021 were \$190.4 million, an increase of \$14.3 million compared to the same period in 2020. The increase was primarily driven by merger related expenses and increased incentive compensation expense, largely attributable to an increase in our stock price, partially offset by lower restructuring expenses.

RESULTS OF OPERATIONS FOR THE YEAR ENDED DECEMBER 31, 2020 AS COMPARED TO THE YEAR ENDED DECEMBER 31, 2019

Our comparison of 2020 results to 2019 results is included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020, under Part II Item 7, Management's Discussion and Analysis of Financial Condition and Results of Operations.

LIQUIDITY AND CAPITAL RESOURCES

We believe that we have sufficient liquidity to support our ongoing operations and to invest in future growth to create value for our stockholders. Our operating cash flows, existing cash balances and available capacity under our asset-based senior secured revolving credit facility (the "ABL Credit Facility") are our primary sources of liquidity and are expected to be used for, among other things, capital expenditures, completion of restructuring programs and payment of interest and principal on our long-term debt obligations.

The following describes our cash flows for the years ended December 31, 2021, 2020 and 2019.

	Year Ended December 31,		
	2021	2020	2019
	(in millions)		
Net cash provided by operating activities	\$ 92.1	\$ 149.8	\$ 139.3
Net cash (used in) provided by investing activities	(55.3)	305.0	(25.8)
Net cash used in financing activities	(75.3)	(329.3)	(289.4)
Effect of exchange rates on cash, cash equivalents and restricted cash	1.2	8.3	(3.9)
Net (decrease) increase in cash, cash equivalents and restricted cash	<u>\$ (37.3)</u>	<u>\$ 133.8</u>	<u>\$ (179.8)</u>

Operating cash inflows are largely attributable to sales of our products and services. Operating cash outflows are largely attributable to recurring expenditures for raw materials, labor, rent, interest, taxes and other operating activities.

Net cash provided by operating activities in 2021 was \$92.1 million, \$57.7 million lower than in 2020. The decrease in operating cash provided by operating activities in 2021 was primarily driven by \$44.2 million of merger related cash payments including accelerated incentive compensation, the payment of a break fee and professional fees. Further, during 2021 we made \$31.1 million of LSC bankruptcy related payments primarily associated with lump sum settlements of two MEPP plans, and a \$17.5 million repayment of payroll taxes deferred in 2020 as part of the CARES Act. Operating cash flow also decreased due to working capital investments, higher incentive compensation payments, and a \$9.2 million payment to terminate certain interest rates swaps, partially offset by lower restructuring, tax and interest payments. In addition, the prior year amount benefitted from the deferral of payroll taxes of \$35.1 million. Included in net cash provided by operating activities were the following operating cash (outflows) inflows:

	Year Ended December 31,		
	2021	2020	2019
	(in millions)		
Income tax payments, net of tax refunds	\$ (39.2)	\$ (61.5)	\$ (60.9)
Interest payments	(114.4)	(125.8)	(158.6)
Performance-based compensation payments	(59.4)	(48.4)	(45.4)
Merger related payments:			
Accelerated Incentive Compensation	(25.5)	—	—
Break fee payment to Atlas	(12.0)	—	—
Professional fees	(6.7)	—	—
Restructuring and MEPP payments	(59.8)	(71.9)	(42.6)
LSC bankruptcy related payments, including MEPP	(31.1)	(3.7)	—
Payments on interest rate swap terminations	(9.2)	—	—
Payments to deferred compensation participants	—	(47.0)	—
Pension and other postretirement benefits plan contributions	(5.0)	(9.5)	(8.6)

Significant cash (outflows) inflows included in investing and financing activities for each period were as follows:

	Year Ended December 31,		
	2021	2020	2019
	(in millions)		
Capital expenditures	\$ (73.3)	\$ (85.6)	\$ (138.8)
Acquisition of business	—	—	(3.0)
Dispositions of businesses, net of cash disposed	(1.4)	247.6	50.6
Proceeds from sales of property, plant and equipment	19.2	43.0	65.4
Proceeds related to life insurance policies	0.2	100.0	—
Proceeds from issuance of long-term debt	451.1	—	—
Payments on other short-term debt	—	—	(37.9)
Payments of current maturities and long-term debt	(524.8)	(281.0)	(223.0)
Net proceeds (payments) under credit facilities	32.0	(42.0)	(17.0)
Dividends paid	—	(2.1)	(8.5)

Capital expenditures in 2021 were \$12.3 million and \$65.5 million lower than in 2020 and 2019, respectively. Capital expenditures in 2019 were higher primarily due to investments associated with building a new facility in advance of the expected sale and relocation of a printing facility in Shenzhen, China and additional investments related to the 2020 Census contract.

Proceeds from disposition of businesses included the sales of Courier Logistics, DLS Worldwide, and International Logistics in 2020 and the sale of the GDS and R&D businesses in 2019.

Proceeds from sale of investments and other assets in 2021 included cash proceeds from the sale of restructured facilities of \$13.4 million. Proceeds from sale of investments and other assets in 2020 primarily included \$25.1 million cash received as a deposit for the expected sale of a printing facility in Shenzhen, China and cash proceeds from the sale of restructured facilities of \$13.7 million. In 2020, we also received \$100.0 million in proceeds primarily from the termination of certain life insurance policies.

Proceeds from issuances of long-term debt during the year ended December 31, 2021 reflects the issuance of \$450 million of 6.125% senior secured notes due 2026 during the second quarter. Payments of current maturities and long-term debt in 2021 primarily reflects the repayment of \$387.6 million of principal on the Term Loan, the redemption in December of the \$79.3 million of notes maturing in February 2022 and repayment of the \$55.6 million of the debentures that matured on April 15, 2021. Payments of current maturities and long-term debt in 2020 represent repurchases of outstanding debt with maturities from 2020 to 2024 along with the repayment of the remaining balance of the notes that matured on June 15, 2020. We had \$32.0 million of outstanding borrowings under our ABL Credit Facility on December 31, 2021.

Dividends

On April 6, 2020, the Board of Directors of the Company decided to suspend all dividend payments as part of the Company's response to the COVID-19 outbreak. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, *Executive Overview, Response to COVID-19* Section for further discussion.

Each of our ABL Credit Agreement, Term Loan Credit Agreement and indenture for our Secured Notes limit availability to make dividend payments, subject to specified exceptions. Our Board of Directors must review and approve future dividend payments and will determine whether to declare additional dividends based on our operating performance, expected future cash flows, debt levels, liquidity needs and investment opportunities.

Contractual Cash Obligations and other Commitments

As of December 31, 2021, we had \$1.5 billion of outstanding debt. The next scheduled principal payment of \$75.0 million is due in 2023. In addition, we have certain contractual obligations for the purchase of property, plant and equipment of \$31.2 million payable in 2022. During the year ended December 31, 2020, we deferred the employer portion of payroll tax of \$35.1 million as part of the CARES Act. We repaid the first half of the deferred amount in the fourth quarter of 2021 and we have an obligation to repay the remaining one-half in the fourth quarter of 2022. We also have certain other contractual obligations, including certain MEPP withdrawal obligations (see Note 5, *Restructuring, Impairment and Other Charges* and Note 9, *Retirement Plans*, to the Consolidated Financial Statements, for further discussion) and obligations to pay transition tax (see Note 10, *Income Taxes*, to the Consolidated Financial Statements, for further discussion). We expect to be able to meet these obligations using our cash flow from operations, cash balances, and availability under our ABL Credit Facility.

Cash and cash equivalents were \$280.2 million as of December 31, 2021, a decrease of \$8.6 million compared to December 31, 2020. Included in Cash and cash equivalents at December 31, 2021 were \$1.9 million of short-term investments, which primarily consisted of short-term deposits and money market funds. These investments are held at institutions with sound credit ratings and are highly liquid.

Liquidity

Our cash balances are held in numerous locations throughout the world, including substantial amounts held outside of the United States. Cash and cash equivalents as of December 31, 2021 included \$14.1 million in the U.S. and \$266.1 million at international locations. We maintain cash pooling structures that enable participating international locations to draw on our international 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 our short-term borrowing costs or for other purposes. During the year ended December 31, 2021, we transferred approximately \$64 million of cash held in international jurisdictions to the U.S. which was used to reduce debt outstanding. In future years we have further opportunities to repatriate foreign cash, primarily generated from current year earnings, in a tax efficient manner.

As of December 31, 2021, we were in compliance with the covenants under our debt agreements and expect to remain in compliance based on our estimates of operating and financial results for 2022 and the foreseeable future. As of December 31, 2021, we met all the conditions required to borrow under the ABL Credit Agreement and we expect to continue to meet the borrowing conditions.

As of December 31, 2021, we had \$32.0 million of outstanding borrowings and \$67.3 million of letters of credit issued under the ABL Credit Facility. Based on the Borrowing Base as of December 31, 2021 and outstanding letters of credit, we had \$550.7 million of borrowing capacity available under the ABL Credit Facility. We also had \$143.4 million in other uncommitted credit facilities, primarily outside the U.S., of which we had \$111.9 million in outstanding letters of credit, bank guarantees and bank acceptance drafts.

The current availability under the ABL Credit Facility as of December 31, 2021 is shown in the table below:

	December 31, 2021	
	(in millions)	
Availability		
ABL Credit Facility	\$	650.0
Usage		
Borrowings under the ABL Credit Facility	\$	32.0
Outstanding letters of credit		67.3
	\$	99.3
Current availability at December 31, 2021	\$	550.7
Cash and cash equivalents		280.2
Total available liquidity ^(a)	\$	830.9

(a) Total available liquidity does not include credit facilities of non-U.S. subsidiaries, which are uncommitted facilities.

On April 16, 2021, we amended the ABL Credit Facility to, among other things, extend the maturity date from September 29, 2022 to April 16, 2026 and reduce the aggregate commitments from \$800 million to \$650 million.

The failure of a financial institution supporting the ABL Credit Facility would reduce the amount of underlying commitments unless a replacement institution was added. Currently, the ABL Credit Facility is supported by eight U.S. financial institutions.

On November 4, 2021, Moody's Investors Service, Inc. ("Moody's") placed our credit ratings under review for potential downgrade in connection with the initial announcement of a merger transaction. Our credit ratings from Moody's and S&P Global Ratings ("S&P") as of December 31, 2021 are shown in the table below:

	S&P	Moody's
Long-term corporate credit rating	B (stable)	B2 (under review)
Senior unsecured debt	B-	B3
Term Loan	B+	B1

At the request of Chatham, we amended our Term Loan Credit Agreement on February 7, 2022. The Term Loan Credit Agreement amendment provides, among other things, to permit the Chatham merger transaction, refinance \$150 million of the existing term loans, provide for a tranche of \$600 million of new incremental term loans, extend the maturity date of all the term loans to November 1, 2026 and change the reference rate to be based on the secured overnight financing rate (SOFR). Jefferies will also be appointed as the administrative agent under the Term Loan Credit Agreement and certain covenants and other provisions will be modified. The effectiveness of the term loan amendment is conditioned upon the consummation of the Chatham merger transaction.

Also at the request of Chatham, we amended our existing ABL Credit Agreement in February 2022. Upon the effectiveness of the amendment, the ABL Credit Agreement will be amended to, among other things, permit the Chatham merger transaction and change the reference rate for U.S. Dollar borrowings to SOFR, for Sterling borrowings to SONIA and for Yen borrowings to TIBOR. Wells Fargo will also be appointed as the administrative agent under the ABL Credit Agreement and certain negative covenants will be modified to permit the Chatham merger transaction. The effectiveness of the ABL amendment is conditioned upon the consummation of the Chatham merger transaction.

Critical Accounting Policies and Estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Our most critical accounting policies are those that are most important to the portrayal of our financial condition and results of operations, and which require us to make our most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. We have identified the following as our most critical accounting policies and judgments. Although we believe that our estimates and assumptions are reasonable, they are based upon information available when they are made, and therefore, actual results may differ from these estimates under different assumptions or conditions.

Revenue Recognition

All revenue recognized in the Consolidated Statements of Operations is considered to be revenue from contracts with clients.

Our products revenue is primarily recognized at a point in time. We generally recognize revenue for products upon the transfer of control of the products to the client which typically occurs upon transfer of title and risk of ownership, which is generally upon shipment to the client. For certain products, we are able to recognize revenue for completed inventory billed but not yet shipped at the client's direction.

Our services revenue is recognized both at a point in time as well as over time. Our business process outsourcing and digital and creative solutions revenue is recognized over time or at a point in time, depending on the nature of the service which could be either recurring or project-based.

Goodwill and Other Long-Lived Assets

Our methodology for allocating the purchase price of acquisitions is based on established valuation techniques, and when appropriate, includes valuations performed by management or third-party appraisers. Based on our current organization structure, we have identified 14 reporting units for which cash flows are determinable and to which goodwill may be allocated. Goodwill is either assigned to a specific reporting unit or allocated between reporting units based on the relative excess fair value of each reporting unit.

We perform our 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 value, indicating a possible impairment may exist.

As of October 31, 2021, seven reporting units had goodwill. The commercial print, digital print and fulfillment, forms, content and creative services, business process outsourcing, Latin America and Canada reporting units had no goodwill as of October 31, 2021. In the impairment test for goodwill, the estimated fair value of each reporting unit is compared to its carrying value, including goodwill. If the carrying value of a reporting unit exceeds the estimated fair value, an impairment loss is recognized equal to the excess, limited to the total amount of goodwill allocated to that reporting unit.

Qualitative Assessment for Impairment

For all of our reporting units with goodwill, in 2021, we performed a qualitative assessment to determine whether it was more likely than not that the fair value of the reporting unit was less than its carrying value. In performing this analysis, we considered various factors, including the effect of market or industry changes and the reporting unit's actual results compared to projected results. In addition, we considered how other key assumptions used in the prior annual goodwill impairment test could be impacted by changes in market conditions and economic events, including the impact of COVID-19.

As part of the qualitative review of impairment, we analyzed the potential change in fair value of the reporting units based on their operating results for the ten months ended October 31, 2021 compared to expected results. Based on our qualitative assessment, we concluded that as of October 31, 2021, it was more likely than not that the fair value of each of the reporting units was greater than its carrying value.

Other Long-Lived Assets

We evaluate the recoverability of other long-lived assets, including property, plant and equipment and certain identifiable intangible assets, whenever events or changes in circumstances indicate that the carrying value of an asset or asset group may not be recoverable. 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 we determine that the carrying value of long-lived assets 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 and its eventual disposition. If the carrying value of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recorded for the excess of the asset's carrying value over its fair value.

Pension and OPEB Plans

We record annual income and expense amounts and our year-end obligations relating to our pension and OPEB plans based on calculations which include various actuarial methods and assumptions, including discount rates, mortality, utilization rates of retiree health care accounts, and healthcare cost trend rates, among others. We review our actuarial assumptions on an annual basis as of December 31 (or more frequently if a significant event requiring re-measurement occurs) and makes modification to the assumptions based on current rates and trends when it deems it appropriate to do so. The effect of modifications of actuarial assumptions on the value of the pension and OPEB obligations is recognized within other comprehensive income (loss) and amortized into earnings over future periods. We believe that the assumptions utilized in recording our obligations under our plans are reasonable based on our experience, market conditions and input from our actuaries and investment advisors. The discount rates for pension benefits at December 31, 2021 and 2020 were 2.7% and 2.4%, respectively. The discount rates for OPEB plans were 2.7% and 2.2% at December 31, 2021 and 2020, respectively.

We use the full yield curve approach in the estimation of the interest components of net pension and OPEB plan expense (income) by applying the specific spot rates along the yield curve used in the determination of the projected benefit obligation to the relevant projected cash flows.

A one-percentage point change in the discount rates at December 31, 2021 would have the following effects on the accumulated benefit obligation and projected benefit obligation:

Pension Plans

	<u>1.0% Increase</u>	<u>1.0% Decrease</u>
	(in millions)	
Accumulated benefit obligation	\$ (133.6)	\$ 161.7
Projected benefit obligation	(134.7)	162.9

OPEB

	<u>1.0% Increase</u>	<u>1.0% Decrease</u>
	(in millions)	
Accumulated benefit obligation	\$ (16.8)	\$ 18.8

The majority of our pension plans are frozen and we have transitioned to a risk management approach for our U.S. 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. Over time, the target asset allocation percentage for the pension plan is expected to decrease for equity and other "return seeking" investments and increase for fixed income and other "hedging" investments. The assumed long-term rate of return for plan assets, which is determined annually, is likely to decrease as the asset allocation shifts over time.

The expected long-term rate of return for plan assets is based upon many factors including expected asset allocations, historical asset returns, current and expected future market conditions and risk. In addition, we 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 primary U.S. pension plan was approximately 15.0% for return seeking investments and approximately 85.0% for hedging investments. The expected long-term rate of return on plan assets assumption used to calculate net pension and OPEB plan expense in 2021 was 5.00% and 5.75% for major U.S. pension and OPEB plans, respectively. The expected long-term rates of return on plan assets assumption that will be used to calculate net pension and OPEB plan expense (income) in 2022 are 3.75% and 5.25% for our major U.S. pension and OPEB plans, respectively.

A 0.25% change in the expected long-term rate of return on plan assets at December 31, 2021 would have the following effects on 2022 pension and OPEB plan (income)/expense:

	<u>0.25% Increase</u>	<u>0.25% Decrease</u>
	(in millions)	
U.S. pension plans	\$ (1.4)	\$ 1.4
OPEB	(0.5)	0.5

We also maintain several pension plans in international locations. The expected returns on plan assets and discount rates for those plans are determined based on each plan's investment approach, local interest rates and plan participant profiles.

Accounting for Income Taxes

Significant judgment is required in determining the provision for income taxes and related accruals, deferred tax assets and liabilities and any valuation allowances recorded against deferred tax assets. In the ordinary course of business, there are transactions and calculations where the ultimate tax outcome is uncertain. Additionally, our tax returns are subject to audit by various U.S. and foreign tax authorities. We recognize a tax position in our 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 we believe that our estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in our historical financial statements.

We have recorded deferred tax assets related to future deductible items, including domestic and foreign tax loss and credit carryforwards. We evaluate 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, we have recorded a valuation allowance to reduce certain of these deferred tax assets when we have 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, 2021 and 2020, valuation allowances of \$200.7 million and \$195.7 million, respectively, were recorded in our Consolidated Balance Sheet.

Deferred U.S. income taxes and foreign taxes have historically not been provided on the excess of the investment value for financial reporting over the tax basis of investments in those foreign subsidiaries for which such excess is considered to be permanently reinvested in those operations.

See Note 10, *Income Taxes*, to the Consolidated Financial Statements for further discussion.

OTHER INFORMATION

Environmental, Health and Safety

For a discussion of certain environmental, health and safety issues involving us, see Note 8, *Commitments and Contingencies*, to the Consolidated Financial Statements.

Litigation and Contingent Liabilities

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

New Accounting Pronouncements

Recently issued accounting standards and their estimated effect on our Consolidated Financial Statements are also described in Note 18, *New Accounting Pronouncements*, to the Consolidated Financial Statements.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market Risk

We are exposed to interest rate risk on our variable-rate debt and price risk on our fixed-rate debt. At December 31, 2021, we had \$182.0 million of variable-rate debt. Including the effect of the floating-to-fixed interest rate swaps (see Note 12, *Derivatives*, to the Consolidated Financial Statements), approximately 95% of our outstanding debt was comprised of fixed-rate debt as of December 31, 2021.

We assess 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, such changes would not have a material effect on interest income or expense and cash flows and would change the fair values of fixed-rate debt at December 31, 2021 and 2020 by \$8.7 million and \$23.7 million, respectively.

We are exposed to the impact of foreign currency fluctuations based on our global operations. Foreign currency fluctuations affect the U.S. dollar value of revenues earned and expenses incurred in foreign currencies. We are also exposed to currency risk to the extent we own assets or incur liabilities, or enter into other transactions that are not in the functional currency of the subsidiary in which we operate. We employ different practices to manage these risks, including where appropriate the use of derivative instruments, such as foreign currency forwards. As of December 31, 2021 and 2020, the aggregate notional amount of outstanding foreign currency contracts was \$236.4 million and \$220.7 million, respectively (see Note 12, *Derivatives*, to the Consolidated Financial Statements). The net unrealized gains from these foreign currency contracts were \$2.6 million and \$3.6 million as of December 31, 2021 and 2020, respectively. We do not use derivative financial instruments for trading or speculative purposes.

Credit Risk

We are exposed to credit risk on accounts receivable balances. This risk is mitigated due to our large, diverse client base, dispersed over various geographic regions and industrial sectors. No single client comprised more than 10% of our consolidated net sales in 2021, 2020 or 2019. We maintain provisions for potential credit losses and such losses to date have normally been within our expectations. We evaluate the solvency of our clients on an ongoing basis to determine if additional allowances for credit losses need to be recorded. Significant economic disruptions or a slowdown in the economy could result in significant additional charges.

Commodities

The primary raw materials used by us are paper and ink. To reduce price risk caused by market fluctuations, we have incorporated price adjustment clauses in certain sales contracts. We believe a hypothetical 10% change in the price of paper and other raw materials would not have a significant effect on our consolidated annual results of operations or cash flows because these costs are generally passed through to our clients, although there may be contractual delays in our ability to pass along these increases.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial information required by Item 8 is contained in Item 15 of Part IV of this Annual Report on Form 10-K.

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

As required by Rule 13a-15(b) and Rule 15d-15(e) of the Securities Exchange Act of 1934, our management, including the Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining effective disclosure controls and procedures, as defined under Rules 13a-15(e) and 15d-15(e) of the Securities Exchange Act of 1934. As of December 31, 2021, an evaluation was performed under the supervision and with the participation of management, including the Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on that evaluation, the Chief Executive Officer and Chief Financial Officer concluded that disclosure controls and procedures as of December 31, 2021 were effective in ensuring information required to be disclosed in our SEC reports was recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information was accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934) that occurred during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Management on Internal Control Over Financial Reporting

The management of the Company, including the Company's Chief Executive Officer and Chief Financial Officer, is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934).

Management of the Company, including the Company’s Chief Executive Officer and Chief Financial Officer, assessed the effectiveness of the Company’s internal control over financial reporting as of December 31, 2021. Management based this assessment on criteria for effective internal control over financial reporting described in the “Internal Control—Integrated Framework (2013)” issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, management determined that, as of December 31, 2021, the Company maintained effective internal control over financial reporting.

Deloitte & Touche LLP, an independent registered public accounting firm, who audited the consolidated financial statements of the Company included in this Annual Report on Form 10-K, 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
R.R. Donnelley & Sons Company

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of R.R. Donnelley & Sons Company and subsidiaries (the “Company”) as of December 31, 2021, 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, 2021, 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, 2021 of the Company and our report dated February 24, 2022 expressed an unqualified opinion on those financial statements and included an explanatory paragraph regarding the Company’s adoption of a new accounting standard.

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 Report of Management 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 24, 2022

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 R. R. DONNELLEY & SONS COMPANY AND CORPORATE GOVERNANCE

The information required by Item 10 is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022. Information with respect to our executive officers is included as a supplemental item at the end of Part I of this Annual Report on Form 10-K under the caption “*Information About Our Executive Officers.*”

We have adopted a policy statement entitled *Code of Ethics* that applies to our chief executive officer and senior financial officers which we make available on our web site, www.rrd.com. In the event that an amendment to, or a waiver from, a provision of the *Code of Ethics* is made or granted, we intend to post such information on our web site.

ITEM 11. EXECUTIVE COMPENSATION

The information required by Item 11 is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022.

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

The information required by Item 12 relating to the security ownership of certain beneficial owners and management is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

The information required by Item 13 is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by Item 14 is incorporated herein by reference to our definitive proxy statement or amendment to this Form 10-K to be filed with the SEC no later than May 2, 2022.

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 on Form 10-K.

(b) Exhibits

The exhibits listed in the Exhibit Index on the following page are filed or incorporated by reference as part of this Annual Report on Form 10-K.

(c) Financial Statement Schedules omitted

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

ITEM 16. FORM 10-K SUMMARY

None.

INDEX TO EXHIBITS

- 2.1 [Separation and Distribution Agreement, dated as of September 14, 2016, by and among R.R. Donnelley & Sons Company, LSC Communications, Inc. and Donnelley Financial Solutions, Inc. \(incorporated by reference to Exhibit 2.1 to the Company's Current Report on 8-K filed October 3, 2016\).](#)
- 2.2 [Tax Disaffiliation Agreement, dated as of September 14, 2016, between LSC Communications, Inc. and R.R. Donnelley & Sons Company \(incorporated by reference to Exhibit 2.4 to the Company's Current Report on 8-K filed October 3, 2016\).](#)
- 2.3 [Tax Disaffiliation Agreement, dated as of September 14, 2016, between Donnelley Financial Solutions, Inc. and R.R. Donnelley & Sons Company \(incorporated by reference to Exhibit 2.5 to the Company's Current Report on Form 8-K filed October 3, 2016\).](#)
- 2.4 [Asset Purchase Agreement, dated as of September 14, 2020, among R. R. Donnelley & Sons Company, Donnelley Logistics Services Worldwide, Inc., TForce Worldwide, Inc. and TForce Holdings USA, Inc. \(incorporated by reference to Exhibit 2.1 to the Company's Current Report on Form 8-K filed on September 15, 2020\).](#)
- 3.1 [Restatement of Certificate of Incorporation of R.R. Donnelley & Sons Company \(incorporated by reference to Exhibit 3.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2019, filed on October 30, 2019\).](#)
- 3.2 [Amended and Restated By-Laws of R.R. Donnelley & Sons Company \(incorporated by reference to Exhibit 3.4 to the Company's Current Report on Form 8-K filed on October 3, 2016\).](#)
- 4.1 [Description of Securities \(filed herewith\)](#)
- 4.2 Instruments, other than those defining the rights of holders of long-term debt not registered under the Securities Exchange Act of 1934 of the registrant and of all subsidiaries for which consolidated or unconsolidated financial statements are required to be filed are being omitted pursuant to paragraph (4)(iii)(A) of Item 601 of Regulation S-K. Registrant agrees to furnish a copy of any such instrument to the Commission upon request.
- 4.3 Indenture dated as of November 1, 1990 between the Company and Citibank, N.A., as Trustee (incorporated by reference to Exhibit 4 filed with the Company's Form SE filed on March 26, 1992) (P)
- 4.4 [Indenture dated as of January 3, 2007 between the Company and LaSalle Bank National Association, as Trustee \(incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-3 filed on January 3, 2007\)](#)
- 4.5 [Indenture, dated as of June 18, 2020, between the Company and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on June 19, 2020\).](#)
- 4.6 [Indenture, dated as of March 30, 2020, between the Company and U.S. Bank National Association, as trustee \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed on April 3, 2020\).](#)
- 4.7 [Rights Agreement, dated as of August 28, 2019, between R.R. Donnelley & Sons Company and Computershare Trust Company, N.A., as rights agent \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K/A filed August 29, 2019\).](#)
- 4.8 [First Amendment to Rights Agreement, dated as of August 17, 2020, between R. R. Donnelley & Sons Company and Computershare Trust Company, N.A., as rights agent \(incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed August 18, 2020\).](#)
- 10.1 [Amended and Restated 2017 Performance Incentive Plan \(incorporated by reference to Appendix B to the Company's Annual Proxy Statement on Schedule 14A, filed on April 8, 2019\)*](#)
- 10.2 [2012 Performance Incentive Plan \(incorporated by reference to Exhibit 10.5 to the Company's Quarterly Report on Form 10-Q for the quarter ended June 30, 2013, filed on July 30, 2013\)*](#)
- 10.3 [2004 Performance Incentive Plan \(incorporated by reference to Exhibit 10.9 to the Company's Annual Report on Form 10-K for the year ended December 31, 2008, filed on February 25, 2009\)*](#)
- 10.4 [Amended and Restated R.R. Donnelley & Sons Company Unfunded Supplemental Benefit Plan \(incorporated by reference to Exhibit 10.11 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010, filed on November 3, 2010\)*](#)
- 10.5 [Amendment to Amended and Restated R.R. Donnelley & Sons Company Unfunded Supplemental Benefit Plan \(incorporated by reference to Exhibit 10.12 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2010, filed on November 3, 2010\)*](#)

- 10.6 [Employment Agreement, dated as of October 1, 2016, between Daniel L. Knotts and R.R. Donnelley & Sons Company \(incorporated by reference to Exhibit 10.3 to the Company's Current Report on 8-K filed on October 3, 2016\)*](#)
- 10.7 [Form of Restated Employment Letter for Executive Officers \(other than CEO\) \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, filed on March 5, 2019\)*](#)
- 10.8 [Senior Leadership Separation Pay Plan Form of Restated Employment Letter for Executive Officers \(other than CEO\) \(incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K, filed on March 5, 2019\)*](#)
- 10.9 [Form of Change in Control Agreement \(incorporated by reference to Exhibit 10.4 to the Company's Current Report on Form 8-K, filed March 5, 2019\)*](#)
- 10.10 [Amended and Restated Annual Incentive Plan \(incorporated by reference to Exhibit 10.32 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, filed on May 7, 2015\)*](#)
- 10.11 [Form of Option Agreement for Executive Officers \(incorporated by reference to Exhibit 10.11 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.12 [Form of Option Agreement for Executive Officers \(incorporated by reference to Exhibit 10.12 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.13 [Form of Performance Stock Unit Award Agreement for Executive Officers \(2018\) \(incorporated by reference to Exhibit 10.14 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.14 [Form of Performance Stock Unit Award Agreement for Executive Officers \(2019\) \(incorporated by reference to Exhibit 10.15 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.15 [Form of Phantom Performance Stock Unit Award Agreement for Executive Officers \(2019\) \(incorporated by reference to Exhibit 10.16 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.16 [Form of Restricted Stock Unit Award Agreement for Executive Officers \(2018\) \(incorporated by reference to Exhibit 10.18 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.17 [Form of Restricted Stock Unit Award Agreement for Executive Officers \(2019\) \(incorporated by reference to Exhibit 10.19 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.18 [Form of Phantom Restricted Stock Unit Award Agreement for Executive Officers \(2018\) \(incorporated by reference to Exhibit 10.20 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.19 [Form of Phantom Restricted Stock Unit Award Agreement for Executive Officers \(2019\) \(incorporated by reference to Exhibit 10.21 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2019, filed on February 26, 2020\)*](#)
- 10.20 [Form of Long-Term Incentive Cash Award Agreement \(incorporated by reference to Exhibit 10.29 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2018, filed on February 27, 2019\)*](#)
- 10.21 [Form of Phantom Restricted Stock Unit Award Agreement for Directors \(filed herewith\)*](#)
- 10.22 [Form of Restricted Stock Unit Award Agreement for Directors \(filed herewith\)*](#)
- 10.23 [R.R. Donnelley & Sons Company Non-Employee Director Compensation Plan \(incorporated by reference to Exhibit 10.2 to the Company's Current Report on 8-K filed on October 3, 2016\)*](#)
- 10.24 [Form of Amended and Restated Indemnification Agreement for directors \(incorporated by reference to Exhibit 10.31 to the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2013, filed on February 26, 2014\)*](#)
- 10.25 [Form of Indemnification Agreement for directors \(incorporated by reference to Exhibit 10.36 to the Company's Quarterly Report on Form 10-Q for the quarter ended September 30, 2016, filed on November 2, 2016\)*](#)
- 10.26 [Second Amended and Restated Credit Agreement, dated as of September 29, 2017, among R.R. Donnelley & Sons Company, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as Administrative Agent \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on 8-K filed on October 3, 2017\).](#)

- 10.27 [Credit Agreement, dated as of October 15, 2018, among R. R. Donnelley and Sons Company, the lenders party thereto and Bank of America, N.A., as administrative agent \(incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on October 15, 2018\)](#)
- 10.28 [Amendment No. 1 to Credit Agreement, dated as of October 15, 2018, among R. R. Donnelley and Sons Company, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as administrative agent \(incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed on October 15, 2018\)](#)
- 21 [Subsidiaries of the Company \(filed herewith\)](#)
- 23 [Consent of Deloitte & Touche LLP \(filed herewith\)](#)
- 24 [Power of Attorney \(filed herewith\)](#)
- 31.1 [Certification by Daniel L. Knotts, 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 Terry D. Peterson, 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 L. Knotts, 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 Terry D. Peterson, 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
- 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 Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)

* Management contract or compensatory plan or arrangement.

ITEM 15(a). INDEX TO FINANCIAL STATEMENTS

	<u>Page</u>
<u>Consolidated Statements of Operations for each of the three years in the period ended December 31, 2021</u>	F-2
<u>Consolidated Statements of Comprehensive Income (Loss) for each of the three years in the period ended December 31, 2021</u>	F-3
<u>Consolidated Balance Sheets as of December 31, 2021 and 2020</u>	F-4
<u>Consolidated Statements of Cash Flows for each of the three years in the period ended December 31, 2021</u>	F-5
<u>Consolidated Statements of Stockholders' Equity for each of the three years in the period ended December 31, 2021</u>	F-6
<u>Notes to Consolidated Financial Statements</u>	F-7
<u>Report of Independent Registered Public Accounting Firm (PCAOB ID No. 34)</u>	F-40

R. R. DONNELLEY & SONS COMPANY AND SUBSIDIARIES (“RRD”)

CONSOLIDATED STATEMENTS OF OPERATIONS
(in millions, except per share data)

	Year Ended December 31,		
	2021	2020	2019
Net sales	4,963.7	4,766.3	5,473.2
Cost of sales	3,994.9	3,789.2	4,389.3
Gross profit	968.8	977.1	1,083.9
Selling, general and administrative expenses (exclusive of depreciation and amortization)	600.6	597.5	687.7
Restructuring, impairment and other charges-net (Note 5)	33.3	100.0	36.7
Depreciation and amortization	130.5	145.7	162.6
Other operating expense	40.9	25.8	11.6
Income from operations	163.5	108.1	185.3
Interest expense-net (Note 11)	127.6	135.1	150.6
Investment and other income-net	(19.9)	(14.1)	(16.7)
Loss on debt extinguishment	7.1	3.0	0.8
Income (loss) from continuing operations before income taxes	48.7	(15.9)	50.6
Income tax expense (Note 10)	44.9	10.0	54.9
Net income (loss) from continuing operations	3.8	(25.9)	(4.3)
Gain on sale of discontinued operations, net of tax	0.6	127.4	—
Loss from discontinued operations, net of tax (Note 2)	—	(2.5)	(88.4)
Net income (loss) from discontinued operations	0.6	124.9	(88.4)
Net income (loss)	4.4	99.0	(92.7)
Less: income attributable to noncontrolling interests	0.7	0.5	0.5
Net income (loss) attributable to RRD common stockholders	\$ 3.7	\$ 98.5	\$ (93.2)
Basic net earnings (loss) per share attributable to RRD common stockholders (Note 13):			
Continuing operations	\$ 0.04	\$ (0.37)	\$ (0.07)
Discontinued operations	0.01	1.73	(1.24)
Net earnings (loss) attributable to RRD common stockholders	0.05	1.36	(1.31)
Diluted net earnings (loss) per share attributable to RRD common stockholders (Note 13):			
Continuing operations	\$ 0.04	\$ (0.37)	\$ (0.07)
Discontinued operations	0.01	1.73	(1.24)
Net earnings (loss) attributable to RRD common stockholders	0.05	1.36	(1.31)
Weighted average number of common shares outstanding:			
Basic	73.2	72.3	71.2
Diluted	74.5	72.3	71.2

See accompanying Notes to Consolidated Financial Statements.

R. R. DONNELLEY & SONS COMPANY AND SUBSIDIARIES (“RRD”)
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in millions)

	Year Ended December 31,		
	2021	2020	2019
Net income (loss)	\$ 4.4	\$ 99.0	\$ (92.7)
Other comprehensive (loss) income, net of tax (Note 14):			
Translation adjustments	(11.1)	27.8	7.0
Adjustment for net periodic pension and other postretirement benefits plan cost	91.7	7.2	(30.5)
Changes in fair value of derivatives	10.1	(12.0)	1.0
Other comprehensive income (loss)	90.7	23.0	(22.5)
Comprehensive income (loss)	95.1	122.0	(115.2)
Less: comprehensive income attributable to noncontrolling interests	0.6	1.2	0.4
Comprehensive income (loss) attributable to RRD common stockholders	\$ 94.5	\$ 120.8	\$ (115.6)

See accompanying Notes to Consolidated Financial Statements.

R. R. DONNELLEY & SONS COMPANY AND SUBSIDIARIES (“RRD”)

CONSOLIDATED BALANCE SHEETS
(in millions, except per share data)

	December 31,	
	2021	2020
ASSETS		
Cash and cash equivalents	\$ 280.2	\$ 288.8
Receivables, less allowances for credit losses of \$8.7 in 2021 (2020 - \$15.9) (Note 1)	1,063.4	1,009.2
Inventories (Note 1)	352.7	302.1
Assets held-for-sale	9.2	23.1
Prepaid expenses and other current assets	101.3	133.4
Total current assets	<u>1,806.8</u>	<u>1,756.6</u>
Property, plant and equipment-net (Note 1)	408.4	438.8
Goodwill (Note 6)	405.4	410.6
Other intangible assets-net (Note 6)	49.8	68.8
Deferred income taxes (Note 10)	34.6	78.5
Operating lease assets (Note 8)	214.5	223.8
Other noncurrent assets	211.9	153.8
Total assets	<u>\$ 3,131.4</u>	<u>\$ 3,130.9</u>
LIABILITIES		
Accounts payable	\$ 895.3	\$ 804.5
Accrued liabilities and other (Note 7)	352.9	351.2
Short-term operating lease liabilities (Note 8)	70.8	73.4
Short-term and current portion of long-term debt (Note 11)	—	61.1
Total current liabilities	<u>1,319.0</u>	<u>1,290.2</u>
Long-term debt (Note 11)	1,466.3	1,442.0
Pension liabilities (Note 9)	62.5	89.5
Other postretirement benefits plan liabilities (Note 9)	—	55.8
Long-term income tax liability (Note 10)	60.3	68.3
Long-term operating lease liabilities (Note 8)	149.9	156.9
Other noncurrent liabilities	238.3	272.0
Total liabilities	<u>3,296.3</u>	<u>3,374.7</u>
Commitments and Contingencies (Note 8)		
EQUITY		
RRD stockholders' equity		
Preferred stock, \$1.00 par value		
Authorized: 2.0 shares; Issued: None	—	—
Common stock, \$0.01 par value		
Authorized: 165.0 shares;		
Issued: 89.0 shares in 2021 and 2020	0.9	0.9
Additional paid-in-capital	2,686.9	3,263.6
Accumulated deficit	(2,237.0)	(2,240.7)
Accumulated other comprehensive loss	(63.1)	(153.9)
Treasury stock, at cost, 13.8 shares in 2021 (2020 - 17.6 shares)	(566.4)	(1,127.6)
Total RRD stockholders' equity	<u>\$ (178.7)</u>	<u>\$ (257.7)</u>
Noncontrolling interests	13.8	13.9
Total equity	<u>(164.9)</u>	<u>(243.8)</u>
Total liabilities and equity	<u>\$ 3,131.4</u>	<u>\$ 3,130.9</u>

See accompanying Notes to Consolidated Financial Statements.

R. R. DONNELLEY & SONS COMPANY AND SUBSIDIARIES (“RRD”)

CONSOLIDATED STATEMENTS OF CASH FLOWS

(in millions)

	Year Ended December 31,		
	2021	2020	2019
OPERATING ACTIVITIES			
Net income (loss)	\$ 4.4	\$ 99.0	\$ (92.7)
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Impairment charges-net	1.9	25.8	99.3
Depreciation and amortization	130.5	150.3	169.2
(Benefit) provision for credit losses	(4.0)	6.7	7.4
Share-based compensation	7.1	8.1	10.9
Deferred income taxes	12.9	(14.7)	21.5
Changes in uncertain tax positions	(7.3)	(3.6)	(0.9)
Gains from sales of property, plant and equipment	(12.4)	(148.0)	(15.1)
Loss on debt extinguishments	7.1	3.0	0.8
Net pension and other postretirement benefits plan income	(18.9)	(13.8)	(16.1)
Other	12.1	20.9	15.1
Changes in operating assets and liabilities - net of dispositions and acquisitions:			
Accounts receivable-net	(42.4)	16.1	72.2
Inventories	(50.9)	5.8	15.2
Prepaid expenses and other current assets	(5.1)	(5.2)	(9.2)
Accounts payable	79.1	3.5	(96.4)
Income taxes payable and receivable	0.7	(25.6)	(27.1)
Accrued liabilities and other	(17.7)	31.0	(6.2)
Pension and other postretirement benefits plan contributions	(5.0)	(9.5)	(8.6)
Net cash provided by operating activities	<u>92.1</u>	<u>149.8</u>	<u>139.3</u>
INVESTING ACTIVITIES			
Capital expenditures	(73.3)	(85.6)	(138.8)
Acquisition of business	—	—	(3.0)
Dispositions of businesses, net of cash disposed	(1.4)	247.6	50.6
Proceeds from sales of property, plant and equipment	19.2	43.0	65.4
Proceeds related to life insurance policies	0.2	100.0	—
Net cash (used in) provided by investing activities	<u>(55.3)</u>	<u>305.0</u>	<u>(25.8)</u>
FINANCING ACTIVITIES			
Proceeds from issuance of long-term debt	451.1	—	—
Payments on other short-term debt	—	—	(37.9)
Payments of current maturities and long-term debt	(524.8)	(281.0)	(223.0)
Proceeds from credit facility borrowings	1,168.0	633.0	1,250.8
Payments on credit facility borrowings	(1,136.0)	(675.0)	(1,267.8)
Debt issuance costs	(8.2)	—	(0.3)
Dividends paid	—	(2.1)	(8.5)
Payments of withholding taxes on share-based compensation	(22.6)	(0.6)	(1.1)
Other financing activities	(2.8)	(3.6)	(1.6)
Net cash used in financing activities	<u>(75.3)</u>	<u>(329.3)</u>	<u>(289.4)</u>
Effect of exchange rate on cash, cash equivalents and restricted cash	1.2	8.3	(3.9)
Net (decrease) increase in cash, cash equivalents and restricted cash	(37.3)	133.8	(179.8)
Cash, cash equivalents and restricted cash at beginning of year	357.6	223.8	403.6
Cash, cash equivalents and restricted cash at end of period	<u>\$ 320.3</u>	<u>\$ 357.6</u>	<u>\$ 223.8</u>
Supplemental cash flow disclosures:			
Operating cash flows (used in) provided by discontinued operations	\$ —	\$ (1.4)	\$ 20.7
Investing cash flows provided by (used in) discontinued operations	\$ —	\$ 239.5	\$ (2.8)

See accompanying Notes to Consolidated Financial Statements.

R. R. DONNELLEY & SONS COMPANY AND SUBSIDIARIES (“RRD”)

CONSOLIDATED STATEMENTS OF STOCKHOLDERS’ EQUITY

(in millions)

	Common Stock		Additional Paid-in- Capital	Treasury Stock		Accumulated Deficit	Accumulated Other Comprehensive Loss	Total RRD’s Stockholders’ Equity	Noncontrolling Interests	Total Equity
	Shares	Amount		Shares	Amount					
Balance at January 1, 2019	89.0	\$ 0.9	\$ 3,404.0	(18.6)	\$ (1,285.5)	\$ (2,225.7)	\$ (153.8)	\$ (260.1)	\$ 14.7	\$ (245.4)
Net (loss) income						(93.2)		(93.2)	0.5	(92.7)
Other comprehensive loss							(22.4)	(22.4)	(0.1)	(22.5)
Share-based compensation			10.9					10.9		10.9
Issuance of share-based awards, net of withholdings and other			(66.9)	0.5	65.9			(1.0)		(1.0)
Cash dividends paid						(8.5)		(8.5)		(8.5)
Spinoff adjustments						(12.0)		(12.0)		(12.0)
Cumulative impact of adopting ASU 2016-02, net of tax						2.6		2.6		2.6
Distributions to noncontrolling interests								—	(1.7)	(1.7)
Balance at December 31, 2019	89.0	\$ 0.9	\$ 3,348.0	(18.1)	\$ (1,219.6)	\$ (2,336.8)	\$ (176.2)	\$ (383.7)	\$ 13.4	\$ (370.3)
Net income						98.5		98.5	0.5	99.0
Other comprehensive income							22.3	22.3	0.7	23.0
Share-based compensation			8.1					8.1		8.1
Issuance of share-based awards, net of withholdings and other			(92.5)	0.5	92.0			(0.5)		(0.5)
Cash dividends paid						(2.1)		(2.1)		(2.1)
Cumulative impact of adopting ASU 2016-13, net of tax						(0.3)		(0.3)		(0.3)
Distributions to noncontrolling interests								—	(0.7)	(0.7)
Balance at December 31, 2020	89.0	\$ 0.9	\$ 3,263.6	(17.6)	\$ (1,127.6)	\$ (2,240.7)	\$ (153.9)	\$ (257.7)	\$ 13.9	\$ (243.8)
Net income						3.7		3.7	0.7	4.4
Other comprehensive income (loss)							90.8	90.8	(0.1)	90.7
Share-based compensation			7.1					7.1		7.1
Issuance of share-based awards, net of withholdings and other			(583.8)	3.8	561.2			(22.6)		(22.6)
Distributions to noncontrolling interests								—	(0.7)	(0.7)
Balance at December 31, 2021	89.0	\$ 0.9	\$ 2,686.9	(13.8)	\$ (566.4)	\$ (2,237.0)	\$ (63.1)	\$ (178.7)	\$ 13.8	\$ (164.9)

See accompanying Notes to Consolidated Financial Statements

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)

Note 1. Basis of Presentation and Summary of Significant Accounting Policies

Basis of Presentation —The accompanying consolidated financial statements include the accounts of R. R. Donnelley & Sons Company and its subsidiaries (the “Company” or “RRD”) and have been prepared in accordance with accounting principles generally accepted in the United States of America (“GAAP”). All intercompany transactions have been eliminated in consolidation.

Merger Agreement —On December 14, 2021, we entered into a definitive merger agreement under which we agreed to be acquired by affiliates of Chatham Asset Management, LLC (“Chatham”), a leading private investment firm. Under the terms of the merger agreement, Chatham will acquire all of the outstanding shares of RRD common stock not already owned by Chatham, and RRD stockholders will receive \$10.85 per share in cash for each share of RRD common stock. All regulatory approvals have been obtained and at a special meeting on February 23, 2022, RRD’s stockholders approved the proposed merger. The merger with Chatham is expected to close on February 25, 2022. Upon completion of the transaction, RRD’s shares will no longer trade on the New York Stock Exchange and RRD will become a private company.

In connection with the merger agreement, Chatham paid a \$20 million termination fee that was due under the previous November 3 agreement and plan of Merger with Atlas River Parent Inc. (“Atlas”). In addition, we paid \$12 million to Atlas that was due under the same previous merger agreement.

Nature of Operations —RRD is a global, integrated communications provider enabling organizations to create, manage, deliver and optimize their multichannel marketing and business communications. We have a flexible and comprehensive portfolio of integrated communications solutions that allows our clients to engage audiences, reduce costs and drive revenues. Our innovative content management offering, production platform, supply chain management, outsourcing capabilities and customized consultative expertise assist our clients in the delivery of integrated messages across multiple media to highly targeted audiences at optimal times for clients in virtually every private and public sector.

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 reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at 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, allowance for credit losses, inventory obsolescence, asset valuations and useful lives, employee benefits, self-insurance reserves, taxes, restructuring 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 income (loss). Deferred taxes are not provided on cumulative foreign currency translation adjustments when we expect foreign earnings to be permanently reinvested.

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. We record the fair value of our foreign currency contracts, interest rate swaps, pension plan assets and other postretirement benefits (“OPEB”) plan assets on a recurring basis. 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, cash equivalents, restricted cash, accounts receivable, short-term debt and accounts payable approximate their carrying values. The three-tier value hierarchy, which prioritizes valuation methodologies based on the reliability of the inputs, is:

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 our own assumptions, consistent with reasonably available assumptions made by other market participants.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents —We consider 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Restricted cash —Restricted cash primarily includes amounts related to letters of credit and bank acceptance drafts.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the Consolidated Balance Sheets that sum to the total of the same such amounts shown in the Consolidated Statement of Cash Flows.

	December 31,	
	2021	2020
Cash and cash equivalents	\$ 280.2	\$ 288.8
Restricted cash - current (a)	40.1	62.6
Restricted cash - noncurrent (b)	—	6.2
Total cash, cash equivalents and restricted cash	<u>\$ 320.3</u>	<u>\$ 357.6</u>

(a) Included within Prepaid expenses and other current assets within the Consolidated Balance Sheets.

(b) Included within Other noncurrent assets within the Consolidated Balance Sheets.

Receivables and Allowance for Credit Losses —Receivables are stated net of allowances for credit losses and primarily include trade receivables, notes receivable and miscellaneous receivables from suppliers. No single client comprised more than 10% of our consolidated net sales in 2021, 2020 or 2019. We recognize an allowance for credit losses for financial assets carried at amortized cost to present the net amount expected to be collected as of the balance sheet date. Such allowance is based on credit losses expected to arise over the life of the asset's contractual term, which includes consideration of prepayments. Assets are written off when we determine that such financial assets are deemed uncollectible and are recognized as a deduction from the allowance for credit losses. Expected recoveries of amounts previously written off, not to exceed the aggregate of the amount previously written off, are included in determining the necessary reserve at the balance sheet date. We pool financial assets based on similar risk characteristics to estimate expected credit losses. We estimate expected credit losses on financial assets individually when those assets do not share similar risk characteristics.

We have considered the current and expected economic and market conditions as a result of COVID-19 in determining credit loss expense for the period ended December 31, 2021 and 2020.

Transactions affecting the allowance for credit losses for financial instruments during the years ended December 31, 2021 and 2020 were as follows. Recoveries were immaterial for the years ended December 31, 2021 and 2020.

	2021	2020
Balance, beginning of year	\$ 15.9	\$ 14.3
Additional allowance recognized due to adoption of Topic ASC 326	—	0.3
Credit loss expense	(3.9)	5.7
Write-offs and other	(3.3)	(4.4)
Balance, end of year	<u>\$ 8.7</u>	<u>\$ 15.9</u>

Inventories —Inventories include material, labor and factory overhead and are stated at the lower of cost or market and net of excess and obsolescence reserves for raw materials and finished goods. 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. Specific excess and obsolescence provisions are also made when a review of specific balances indicates that the inventories will not be utilized in production or sold. The cost of 37.5% and 36.6% of the inventories at December 31, 2021 and 2020, respectively, has been determined using the Last-In, First-Out (LIFO) method. This method is intended to reflect the effect of inventory replacement costs within results of operations; accordingly, charges to cost of sales generally reflect recent costs of material, labor and factory overhead. We use an external-index method of valuing LIFO inventories. The remaining inventories, primarily related to certain acquired and international operations, are valued using the First-In, First-Out or specific identification methods.

The components of inventories, net of excess and obsolescence reserves for raw materials and finished goods, at December 31, 2021 and 2020 were as follows:

	2021	2020
Raw materials and manufacturing supplies	\$ 183.5	\$ 147.3
Work in process	77.6	64.8
Finished goods	116.0	107.9
LIFO reserve	(24.4)	(17.9)
Total	<u>\$ 352.7</u>	<u>\$ 302.1</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Long-Lived Assets —We assess potential impairments to our long-lived 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. Estimated fair value is generally measured by discounting estimated future cash flows. Long-lived assets, other than goodwill and other intangible assets, which are held for sale, are recorded at the lower of the carrying value or the fair value less the estimated cost to sell.

Property, Plant and Equipment —Property, plant and equipment are recorded at cost and depreciated on a straight-line basis over their estimated useful lives. Useful lives range from 15 to 40 years for buildings, the lesser of 7 years or the lease term for leasehold improvements and generally from 3 to 15 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 properties are 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 property, plant and equipment at December 31, 2021 and 2020 were as follows:

	2021	2020
Land	\$ 35.5	\$ 38.2
Buildings	365.6	361.0
Machinery and equipment	1,674.6	1,703.1
	2,075.7	2,102.3
Accumulated depreciation	(1,667.3)	(1,663.5)
Total	\$ 408.4	\$ 438.8

During the years ended December 31, 2021, 2020 and 2019, depreciation expense was \$89.6 million, \$100.8 million, and \$115.5 million, respectively.

During the fourth quarter of 2017, we entered into an agreement to sell a printing facility in Shenzhen, China and transfer the related land use rights. As of December 31, 2021, we have received deposits in accordance with the terms of the agreement of approximately \$123.3 million which are recorded in other noncurrent liabilities on the Consolidated Balance Sheets. As of December 31, 2021, the carrying cost of the building and land use rights is recorded in other noncurrent assets and is not material. In accordance with the agreement, additional scheduled deposits are required to be paid to us with the final payment due in 2022. Gross proceeds from the sale are expected to be approximately \$250.0 million, subject to changes in the exchange rate. If the buyer fails to comply with terms of the agreement or terminates for any reason, the Company is entitled to retain 30% of the purchase price as liquidated damages.

The buyer missed the required scheduled deposit payment in the third quarter of 2021. As a result, we are taking necessary actions to preserve our rights under the agreement, which may include terminating the agreement.

Goodwill —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 value.

In accordance to our policy and appropriate guidance, when certain conditions are met, we may perform a qualitative, rather than quantitative, assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount. In performing this qualitative analysis, we consider various factors, including the excess of prior year estimates of fair value compared to carrying value, the effect of market or industry changes and the reporting units' actual results compared to projected results. Based on this qualitative analysis, if we determine 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.

If a quantitative test is necessary for any of our reporting units, we compare 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. In 2021, a quantitative assessment was not performed for any of our reporting units given the absence of impairment triggers. See Note 6, *Goodwill and Other Intangible Assets*, for further discussion.

Amortization —Certain costs to acquire and develop internal-use computer software are capitalized and amortized over their estimated useful life using the straight-line method, up to a maximum of five years. Amortization expense, primarily related to internally-developed software and excluding amortization expense related to other intangible assets, was \$22.0 million, \$26.1 million and \$29.4 million for the years ended December 31, 2021, 2020 and 2019, respectively. Deferred debt issuance costs are amortized over the term of the related debt. Other intangible assets are recognized separately from goodwill and are amortized over their estimated useful lives. See Note 6, *Goodwill and Other Intangible Assets*, for further discussion of other intangible assets and the related amortization expense.

Financial Instruments —We use derivative financial instruments to hedge exposures to foreign exchange fluctuations in the ordinary course of business and to hedge the interest rate exposure on certain floating-rate debt.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

All derivatives are recorded as other current or noncurrent assets or other current or noncurrent liabilities on the balance sheet at their respective fair values with unrealized gains and losses recorded in other comprehensive income (loss), net of applicable income taxes, or in the results of operations, depending on the purpose for which the derivative is held. For derivatives designated and that qualify as fair value hedges, the gain or loss on the derivative, as well as the offsetting gain or loss on the hedged item attributable to the hedged risk, are recognized in the results of operations. Changes in the fair value of derivatives that do not meet the criteria for designation as a hedge at inception, or fail to meet the criteria thereafter, are recognized currently in the results of operations. At inception of a hedge transaction, we formally document the hedge relationship and the risk management objective for undertaking the hedge. In addition, we assess, both at inception of the hedge and on an ongoing basis, whether the derivative in the hedging transaction has been highly effective in offsetting changes in fair value of the hedged item and whether the derivative is expected to continue to be highly effective. The impact of any ineffectiveness is recognized currently in the results of operations. Our foreign currency contracts and interest rate swaps are subject to master netting agreements that allow us to settle positive and negative positions with the respective counterparties. Under these master netting agreements, net settlement generally permits us or the counterparty to determine the net amount payable for contracts due on the same date and in the same currency for similar types of derivative transactions. The master netting agreements generally also provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event. See Note 12, *Derivatives*, for additional information.

Share-Based Compensation —We recognize share-based compensation expense based on estimated fair values for all share-based awards made to employees and directors, including stock options, restricted stock units and performance share units. We recognize compensation expense for share-based awards expected to vest on a straight-line basis over the requisite service period of the award based on their grant date fair value. See Note 15, *Stock and Incentive Programs for Employees and Directors*, for further discussion.

Preferred Stock —We have two million shares of \$1.00 par value preferred stock authorized for issuance. The Board of Directors may divide the preferred stock into one or more series and fix the redemption, dividend, voting, conversion, sinking fund, liquidation and other rights. We have no present plans to issue any preferred stock. We have reserved 0.2 million preferred stock shares for issuance under the Stockholder Rights Plan discussed in Note 16.

Pension and OPEB Plans —We record annual income and expense amounts relating to our pension and OPEB plans based on calculations which include various actuarial assumptions, including discount rates, mortality, utilization rates of retiree health care accounts, assumed rates of return, compensation increases, turnover rates and healthcare cost trend rates. We review our actuarial assumptions on an annual basis and make modifications to the assumptions based on current rates and trends when it is deemed appropriate to do so. The effect of modifications on the value of plan obligations and assets is recognized immediately within other comprehensive income (loss) and amortized into operating earnings over future periods. We believe that the assumptions utilized in recording our obligations under our plans are reasonable based on our experience, market conditions and input from our actuaries and investment advisors. See Note 9, *Retirement Plans*, for additional information.

Taxes on Income —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 our opinion, 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.

We recognize deferred tax liabilities related to taxes on certain foreign earnings that were not considered to be permanently reinvested. No deferred tax liabilities were recognized for foreign earnings that were considered to be permanently reinvested. We regularly evaluate whether foreign earnings are expected to be permanently reinvested. This evaluation requires judgment about our future operating and liquidity needs. Changes in economic and business conditions, foreign or U.S. tax laws, or our financial situation could result in changes to these judgments and the need to record additional tax liabilities.

We are regularly audited by foreign and domestic tax authorities. These audits occasionally result in proposed assessments where the ultimate resolution might result in us owing additional taxes, including in some cases, penalties and interest. We recognize a tax position in our 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 we believe that our estimates are reasonable, the final outcome of uncertain tax positions may be materially different from that which is reflected in our financial statements. We adjust 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 10, *Income Taxes*, for further discussion.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 2. Discontinued Operations

On November 2, 2020, we sold DLS Worldwide, which was part of our broader Logistics business and a component of the Business Services reporting segment for \$225.0 million cash, subject to a customary working capital adjustment and an escrow of \$22.5 million. We entered into several commercial agreements whereby we continue to receive logistics services from the divested business. Sales from the Logistics business to RRD previously eliminated in consolidation have been recast and are now shown as external sales within the financial results of discontinued operations below. The net sales were \$38.7 million and \$62.7 million, respectively, for the twelve months ended December 31, 2020 and 2019.

On November 3, 2020 we sold International Logistics, also a portion of our broader Logistics business and a component of the Business Services reporting segment for \$13.0 million cash, subject to a customary working capital adjustment.

The sale of these businesses is part of our strategy to exit non-core businesses in order to pursue portfolio optimization and to reduce debt. As part of this strategic shift, we previously sold Print Logistics in July 2018 and Courier Logistics in March 2020.

The after-tax net gain on sale of discontinued operations of \$127.4 million for the period ended December 31, 2020 reflects the net gain on sale of DLS Worldwide, Courier, and International Logistics.

Beginning in the third quarter of 2020, we have reflected the Print Logistics business, the Logistics Courier business, the DLS Worldwide business, and the International Logistics business, as discontinued operations for all periods presented in the Consolidated Statements of Operations.

During the year ended December 31, 2021 and 2020, we purchased \$58.2 million and \$8.9 million of logistics-related services from the Disposal group, respectively.

Results of discontinued operations were as follows:

	Twelve Months Ended	
	December 31,	
	2020	2019
Net sales	\$ 632.5	\$ 865.7
Cost of sales	(548.6)	(758.7)
Selling, general, administrative and other operating expenses	(66.2)	(95.1)
Restructuring, impairment and other expense	(21.1)	(98.6)
Operating loss from discontinued operations	(3.4)	(86.7)
Income tax (benefit) expense	(0.9)	1.7
Net loss from discontinued operations	\$ (2.5)	\$ (88.4)

Restructuring, impairment, and other expenses included \$20.6 million and \$98.5 million of non-cash charges related to impairment of goodwill recorded in 2020 and 2019 respectively.

During the first quarter of 2020, we identified a triggering event at our Logistics reporting unit. We determined that the fair value of our Logistics reporting unit was lower than its carrying value, resulting in a goodwill impairment charge of \$20.6 million. The goodwill impairment charge resulted from reductions in the estimated fair value for this reporting unit based on lower expectations for future revenue, profitability and cash flows driven by expected reduced demand due to the COVID-19 pandemic. The goodwill impairment charge was determined using discounted cash flow analysis and comparable marketplace fair value data which utilized Level 3 inputs including forecasted future revenue and the selection of the discount rate.

Note 3. Dispositions

2019 Dispositions

On October 25, 2019, we completed the sale of substantially all of the Global Document Solutions (“GDS”) business for approximately \$53.7 million. GDS primarily provided statements and print management services in Europe. The disposition resulted in a loss of \$3.8 million during 2019, which was recorded in Other operating expense (income) in the Consolidated Statements of Operations.

On May 8, 2019, we sold the R&D business within the Business Services segment for net proceeds of \$11.6 million. The disposition resulted in a gain of \$6.1 million during 2019, which was recorded in Other operating expense (income) in the Consolidated Statements of Operations.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

On March 31, 2019, our subsidiary, RR Donnelley Editora e Grafica Ltda. (“RRD Brazil”), filed for bankruptcy liquidation in bankruptcy court in Brazil. The bankruptcy petition was approved by the court shortly thereafter and a bankruptcy trustee was appointed. As a result of the bankruptcy liquidation, we recorded a gain of \$4.0 million in Other operating expense (income) during 2019, primarily reflecting the reclassification of cumulative currency translation adjustments into earnings and ongoing expenses associated with the bankruptcy proceedings. Subsequent to March 31, 2019, the operating results of RRD Brazil are no longer included in our consolidated results of operations except for legal fees associated with the bankruptcy proceedings. The operations of RRD Brazil had been included in the Business Services segment.

Note 4. Revenue Recognition

All revenue recognized in the Consolidated Statements of Operations is considered to be revenue from contracts with clients according to Subtopic 606.

Disaggregation of Revenue

The following table presents net sales disaggregated by products and services:

	2021	2020	2019
Commercial print	\$ 1,535.5	\$ 1,357.7	\$ 1,694.5
Packaging	770.5	687.6	668.5
Direct marketing	534.4	555.4	676.7
Labels	532.9	496.6	497.4
Digital print and fulfillment	431.8	425.7	492.1
Statements	430.0	441.6	545.4
Supply chain management	279.7	329.9	298.7
Forms	195.3	202.4	244.3
Business process outsourcing	165.6	169.4	243.9
Digital and creative solutions	88.0	100.0	111.7
Total net sales	<u>\$ 4,963.7</u>	<u>\$ 4,766.3</u>	<u>\$ 5,473.2</u>

Revenue for commercial print, direct marketing, packaging, statements, labels, digital print and fulfillment, supply chain management and forms is primarily recognized at a point in time. We generally recognize revenue for these products upon the transfer of control of the products to the client which typically occurs upon transfer of title and risk of ownership, which is generally upon shipment to the client. For certain products, we are able to recognize revenue for completed inventory billed but not yet shipped at the client’s direction. Revenue for business process outsourcing and digital and creative solutions is recognized over time or at a point in time, depending on the nature of the service which could be either recurring or project-based.

The following is a description of our products and services:

Commercial Print

We generate revenue by providing various commercial printing products and offer a full range of branded materials including manuals, publications, brochures, business cards, flyers, post cards, posters and promotional items.

Packaging

We generate revenue by providing packaging solutions, ranging from rigid boxes to in-box print materials, for clients in healthcare and life sciences, consumer electronics, cosmetics and consumer packaged goods industries.

Direct Marketing

We generate revenue by providing audience segmentation, creative development, program testing, print production, postal optimization and performance analytics for large-scale personalized direct mail programs.

Labels

We generate revenue by producing custom labels for clients across multiple industries including warehouse and distribution, retail, pharmaceutical, manufacturing and consumer packaging. We offer distribution and shipping labels, healthcare and durable goods labels, promotional labels and consumer product goods packaging labels.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Digital Print and Fulfillment

We generate revenue by providing in-store marketing materials, including signage and point-of-purchase materials, as well as custom marketing kits that require multiple types of marketing collateral. Under the trade name Motif™, we also create custom photobooks.

Statements

We generate revenue by creating critical business communications, including customer billings, financial statements, healthcare communications and insurance documents. Our capabilities include design and composition, variable imaging, email, archival and digital mail interaction, as well as our innovative RRDigital solution set.

Supply Chain Management

We generate revenue by providing workflow design to assembly, configuration, kitting and fulfillment for clients in life sciences and healthcare, consumer electronics, telecommunications, cosmetics, education and industrial industries.

Forms

We generate revenue by producing a variety of forms including invoices, order forms and business forms that support both the private and public sectors for clients in financial, government, retail, healthcare and business services industries.

Business Process Outsourcing

We generate revenue by providing outsourcing services including creative services, research and analytics, financial management and other services for legal providers, insurance, telecommunications, utilities, retail and financial services companies.

Digital and Creative Solutions

We generate revenue by creating and managing content for delivery across multiple marketing communications channels including print and digital advertising, direct marketing and mail, packaging, sales collateral, in-store marketing and social media.

Variable Consideration

Certain clients may receive volume-based rebates or early payment discounts, which are accounted for as variable consideration. We estimate these amounts based on the expected amount to be earned by our clients and reduce revenue accordingly. We do not expect significant changes to estimates of variable consideration. Given the nature of our products and the history of returns, product returns are not significant.

Contract Balances

The following table provides information about contract assets and liabilities from contracts with clients:

	<u>Contract Liabilities</u>	
	<u>Short-Term</u>	
Balance at January 1, 2021	\$	15.6
Balance at December 31, 2021		17.1

Contract liabilities primarily relate to client advances received prior to completion of performance obligations. Reductions in contract liabilities are a result of our completion of performance obligations. Revenue recognized during the year ended December 31, 2021 from amounts included in contract liabilities at the beginning of the period was approximately \$13.9 million.

Practical Expedients and Exemptions

As part of the adoption of Topic 606, we have elected practical expedients and exemptions allowable under the guidance.

We account for shipping and handling activities performed after the control of a good has been transferred to the client as a fulfillment cost. We accrue for the costs of shipping and handling activities if revenue is recognized before contractually agreed shipping and handling activities occur.

We apply Topic 606 to a portfolio of contracts (or performance obligations) with similar characteristics as we reasonably expect that the effects on the financial statements of applying this guidance to the portfolio would not differ significantly from applying this guidance to the individual contracts (or performance obligations) within that portfolio.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

When the output method for measure of progress is determined appropriate, we recognize revenue in the amount for which we have the right to invoice for revenue that is recognized over time and for which we can demonstrate that the invoiced amount corresponds directly with the value to the client for the performance completed to date.

We generally expense sales commissions and other costs to obtain a contract when incurred, because the amortization period would have been one year or less. These costs are recorded within Selling, general and administrative expenses.

We exclude sales taxes and other similar taxes from the measurement of the transaction price. We do not disclose the value of unsatisfied performance obligations, nor do we disclose the timing of revenue recognition for contracts with an original expected length of one year or less.

Note 5. Restructuring, Impairment and Other Charges

For the year ended December 31, 2021, we recorded the following net restructuring, impairment and other charges:

	Employee Terminations	Other Restructuring Charges	Impairment and Other	Multi-Employer Pension Plan Charges	Total
Business Services	\$ 5.3	\$ 7.8	\$ (8.6)	\$ 2.5	\$ 7.0
Marketing Solutions	0.3	5.9	0.9	0.4	7.5
Corporate	2.8	8.2	—	7.8	18.8
Total	<u>\$ 8.4</u>	<u>\$ 21.9</u>	<u>\$ (7.7)</u>	<u>\$ 10.7</u>	<u>\$ 33.3</u>

For the year ended December 31, 2021, we recorded restructuring charges of \$8.4 million for employee termination costs. These charges primarily relate to announced facility closures and the reorganization of selling, general and administrative functions across each segment. We also incurred \$21.9 million of other restructuring charges during the twelve months ended December 31, 2021, comprised of lease terminations and environmental costs and \$10.7 million of multi-employer pension plan (“MEPP”) withdrawal obligation charges, including \$7.1 million to reflect the final apportionment of the LSC multi-employer pension plans between us and Donnelley Financial.

Additionally, we recorded net gains of \$9.7 million on the sale of restructured facilities and equipment for the year ended December 31, 2021.

For the year ended December 31, 2020, we recorded the following net restructuring, impairment and other charges:

	Employee Terminations	Other Restructuring Charges	Impairment and Other	Multi-Employer Pension Plan Charges	Total
Business Services	\$ 18.0	\$ 8.7	\$ (7.8)	\$ 2.5	\$ 21.4
Marketing Solutions	4.6	3.7	1.2	0.4	9.9
Corporate	10.2	21.4	—	37.1	68.7
Total	<u>\$ 32.8</u>	<u>\$ 33.8</u>	<u>\$ (6.6)</u>	<u>\$ 40.0</u>	<u>\$ 100.0</u>

For the year ended December 31, 2020, we recorded net restructuring charges of \$32.8 million for employee termination costs. These charges primarily relate to the closure of the Chilean operations and other announced facility closures in the Business Services segment and the reorganization of selling, general and administrative functions across each segment. We also incurred other restructuring charges of \$33.8 million, primarily comprised of consulting charges, lease terminations and other, and \$40.0 million of MEPP charges during the twelve months ended December 31, 2020. The MEPP charges during the twelve months ended December 31, 2020 included \$37.1 million representing our estimate of payments we believe we will be required to make with respect to LSC’s MEPP liabilities. Refer to Note 8, *Commitment and Contingencies* for further discussion.

Additionally, we recorded net gains of \$11.8 million on the sale of restructured facilities and equipment for the year ended December 31, 2020.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

For the year ended December 31, 2019, we recorded the following net restructuring, impairment and other charges:

	Employee Terminations	Other Restructuring Charges	Impairment and Other	Multi-Employer Pension Plan Charges	Total
Business Services	\$ 20.1	\$ 7.4	\$ (5.0)	\$ 2.5	\$ 25.0
Marketing Solutions	0.5	0.1	—	0.4	1.0
Corporate	1.6	9.1	—	—	10.7
Total	<u>\$ 22.2</u>	<u>\$ 16.6</u>	<u>\$ (5.0)</u>	<u>\$ 2.9</u>	<u>\$ 36.7</u>

For the year ended December 31, 2019, we recorded net restructuring charges of \$22.2 million for employee termination costs. These charges primarily relate to the relocation of a printing facility in Shenzhen, China, other announced facility closures in the Business Services segment, and the reorganization of selling, general and administrative functions across each segment. Other restructuring charges of \$16.6 million for the year ended December 31, 2019 are primarily comprised of environmental matters, lease terminations and other.

Additionally, we recorded a net gain of \$5.7 million on the sale of restructured facilities and equipment.

Restructuring Reserve

The restructuring reserve as of December 31, 2021 and 2020, and changes during the year ended December 31, 2021, were as follows:

	December 31, 2020	Restructuring and Other Charges	Foreign Exchange and Other	Cash Paid	December 31, 2021
Employee terminations	\$ 6.2	\$ 8.4	\$ —	\$ (9.3)	\$ 5.3
MEPP withdrawal obligations	70.2	10.7	—	(31.9)	49.0
Other	12.2	21.9	(0.4)	(18.6)	15.1
Total	<u>\$ 88.6</u>	<u>\$ 41.0</u>	<u>\$ (0.4)</u>	<u>\$ (59.8)</u>	<u>\$ 69.4</u>

The current portion of restructuring reserves of \$25.6 million at December 31, 2021 was included in Accrued liabilities and other, while the long-term portion of \$43.8 million, primarily related to MEPP withdrawal obligations, employee terminations in litigation, environmental reserves and lease termination costs, was included in Other noncurrent liabilities at December 31, 2021. The liabilities for the withdrawal obligations associated with our decision to withdraw from all MEPPs included in Accrued liabilities and other and Other noncurrent liabilities are \$7.6 million and \$41.4 million, respectively, as of December 31, 2021. See Note 9, *Retirement Plans*, and Note 8 – *Commitment and Contingencies*, for further discussion of MEPPs.

Payments on all of our MEPP withdrawal obligations are scheduled to be substantially completed by 2034. Changes based on uncertainties in these estimated withdrawal obligations could affect the ultimate charges related to MEPP withdrawals. See Note 9, *Retirement Plans*, for further discussion on MEPPs.

The restructuring liabilities classified as “other” consisted of reserves for employee terminations in litigation, environmental matters and lease liabilities related to restructured facilities. Any potential recoveries or additional charges could affect amounts reported in our consolidated financial statements.

The restructuring reserve as of December 31, 2020 and 2019, and changes during the year ended December 31, 2020, were as follows:

	December 31, 2019	Restructuring and Other Charges	Foreign Exchange and Other	Cash Paid	December 31, 2020
Employee terminations	\$ 3.5	\$ 32.8	\$ —	\$ (30.1)	\$ 6.2
MEPP withdrawal obligations	40.5	40.0	—	(10.3)	70.2
Other	8.5	33.8	1.4	(31.5)	12.2
Total	<u>\$ 52.5</u>	<u>\$ 106.6</u>	<u>\$ 1.4</u>	<u>\$ (71.9)</u>	<u>\$ 88.6</u>

The current portion of restructuring reserves of \$33.3 million at December 31, 2020 was included in Accrued liabilities and other, while the long-term portion of \$55.3 million, primarily related to MEPP withdrawal obligations, employee terminations in litigation and lease termination costs, was included in Other noncurrent liabilities at December 31, 2020. The liabilities for the withdrawal obligations associated with our decision to withdraw from all MEPPs included in Accrued liabilities and other and Other noncurrent liabilities are \$17.8 million and \$52.4 million, respectively, as of December 31, 2020. Note 9, *Retirement Plans*, for further discussion of MEPPs.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Payments associated with the employee terminations reflected in the above table were substantially completed by December 2021, excluding employee terminations in litigation within the Business Services segment.

Note 6. Goodwill and Other Intangible Assets

The changes in the carrying amount of goodwill for the years ended December 31, 2021 and 2020 were as follows:

	<u>Business Services</u>	<u>Marketing Solutions</u>	<u>Total</u>
Net book value as of January 1, 2020			
Goodwill	2,059.1	519.5	2,578.6
Accumulated impairment losses	(1,920.0)	(254.1)	(2,174.1)
Total	<u>\$ 139.1</u>	<u>\$ 265.4</u>	<u>\$ 404.5</u>
Foreign exchange and other adjustments	6.1	—	6.1
Net book value as of December 31, 2020			
Goodwill	2,076.1	519.5	2,595.6
Accumulated impairment losses	(1,930.9)	(254.1)	(2,185.0)
Total	<u>\$ 145.2</u>	<u>\$ 265.4</u>	<u>\$ 410.6</u>
Foreign exchange and other adjustments	(5.2)	—	(5.2)
Net book value as of December 31, 2021			
Goodwill	2,064.2	519.5	2,583.7
Accumulated impairment losses	(1,924.2)	(254.1)	(2,178.3)
Total	<u>\$ 140.0</u>	<u>\$ 265.4</u>	<u>\$ 405.4</u>

The components of other intangible assets at December 31, 2021 and 2020 were as follows:

	<u>December 31, 2021</u>			<u>December 31, 2020</u>		
	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Book Value</u>	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Net Book Value</u>
Client relationships	\$ 411.0	\$ (372.2)	\$ 38.8	\$ 417.0	\$ (361.1)	\$ 55.9
Patents	2.0	(2.0)	—	2.0	(2.0)	—
Trademarks, licenses and agreements	23.2	(23.2)	—	23.2	(23.2)	—
Trade names	28.5	(17.5)	11.0	29.1	(16.2)	12.9
Total other intangible assets	<u>\$ 464.7</u>	<u>\$ (414.9)</u>	<u>\$ 49.8</u>	<u>\$ 471.3</u>	<u>\$ (402.5)</u>	<u>\$ 68.8</u>

Amortization expense for other intangible assets was \$18.9 million, \$19.3 million and \$21.6 million for the years ended December 31, 2021, 2020 and 2019, respectively.

The following table outlines the estimated annual amortization expense related to other intangible assets as of December 31, 2021:

	<u>Amount</u>
2022	\$ 18.7
2023	18.7
2024	2.9
2025	1.4
2026	1.2
2027 and thereafter	6.9
Total	<u>\$ 49.8</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 7. Accrued Liabilities and Other

The components of accrued liabilities and other at December 31, 2021 and 2020 were as follows:

	2021	2020
Employee-related liabilities	\$ 152.9	\$ 145.1
Deferred revenue	17.1	15.6
Restructuring liabilities and MEPP	25.6	33.3
Other	157.3	157.2
Total accrued liabilities and other	\$ 352.9	\$ 351.2

Employee-related liabilities consist primarily of payroll, sales commission, incentive compensation, employee benefit accruals and workers' compensation. Incentive compensation accruals include amounts earned pursuant to our primary employee incentive compensation plans. Other accrued liabilities include miscellaneous operating accruals, other client-related liabilities, interest expense accruals and income and other tax liabilities.

Note 8. Commitments and Contingencies

We are subject to laws and regulations relating to the protection of the environment. We provide for expenses associated with environmental remediation obligations when such amounts are probable and can be reasonably estimated. Such accruals are adjusted as new information develops or circumstances change and are generally not discounted. We have been designated as a potentially responsible party or have received claims in four active federal and state Superfund and other multiparty remediation sites. In addition to these sites, we may also have the obligation to remediate six other previously and currently owned facilities. At the Superfund sites, the Comprehensive Environmental Response, Compensation and Liability Act provides that our liability could be joint and several, meaning that we could be required to pay an amount in excess of our proportionate share of the remediation costs.

Our understanding of the financial strength of other potentially responsible parties at the multiparty sites and of other liable parties at the previously owned facilities has been considered, where appropriate, in the determination of our estimated liability. We believe that our recorded reserves, recorded in Accrued liabilities and other and Other noncurrent liabilities, are adequate to cover our share of the potential costs of remediation at each of the multiparty sites and the previously and currently owned facilities. It is not possible to quantify with certainty the potential impact of actions regarding environmental matters, particularly remediation and other compliance efforts that we may undertake in the future. However, in our opinion, compliance with the present environmental protection laws, before taking into account estimated recoveries from third parties, will not have a material effect on our consolidated results of operations, financial position or cash flows.

In April 2019, we received a subpoena from the SEC related to previous business dealings with the Brazilian Ministry of Education. The SEC and Department of Justice ("DOJ") are investigating the matter, and we are cooperating as they conduct their investigations.

In addition, the Brazil authorities are also investigating the matter and in June 2021 the Company learned that Brazil's Comptroller General of the Union ("CGU") issued an administrative enforcement notice with charges related to previous business dealings between an administrative body of the Brazilian Ministry of Education and the Company's former Brazilian subsidiary, RR Donnelley Editora e Gráfica ("RRD-Brazil"). The administrative enforcement notice forms the basis of an administrative proceeding against the former Brazilian subsidiary (which filed for bankruptcy liquidation in March 2019) and its immediate parent, RR Donnelley Holdings B.V. The Company also is named as a party in this proceeding. The administrative enforcement notice alleges that former employees of RRD-Brazil engaged in anticompetitive and other business misconduct in connection with services provided to the Ministry of Education. We are pursuing our defenses in this matter and analyzing potential courses of action with local legal counsel.

From time to time, our clients and others file voluntary petitions for reorganization under United States bankruptcy laws. In such cases, certain pre-petition payments received by us from these parties could be considered preference items and subject to return.

We also regularly investigate matters reported to our whistleblower hotline and are currently investigating matters in certain foreign locations. In addition, we may be party to litigation arising in the ordinary course of business.

While these matters are subject to inherent uncertainties, we believe that the final resolution of these preference items, investigations, and litigation will not have a material effect on our consolidated results of operations, financial position or cash flows.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Leases

We determine if an arrangement is a lease at inception. Operating leases are recorded in Operating lease assets, Short-term operating lease liabilities and Long-term operating lease liabilities on the Consolidated Balance Sheets. Operating lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating lease assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. In determining the present value of lease payments, we use our incremental borrowing rate based on the information available at the lease commencement date. Operating lease assets also include any lease payments made and are reduced by any lease incentives received. Our lease terms may include options to extend or not terminate the lease when we are reasonably certain that we will exercise any such options. Leases with an expected term of 12 months or less are not recorded on the balance sheet. Lease expense is recognized on a straight-line basis over the expected lease term.

Our most significant leases are real estate leases for plants, warehouses, storage facilities, offices and other facilities. For real estate leases, we elected the practical expedient permitted under Topic 842 to combine lease and non-lease components. As a result, non-lease components, such as common area maintenance charges, are accounted for as a single lease element. Our remaining operating leases are primarily comprised of leases of machinery and technology equipment. Finance leases are not material.

Certain of our operating lease agreements include variable payments that are passed-through by the landlord, such as insurance, taxes and common area maintenance, payments based on the usage of the asset and rental payments adjusted periodically for inflation. Pass-through charges, payments due to change in usage of the asset and payments due to changes in inflation are included within variable rent expense.

Our lease agreements do not contain material residual value guarantees, restrictions or covenants.

The components of lease expense for the year ended December 31, 2021 and 2020 were as follows:

	Years Ended December 31,	
	2021	2020
Operating lease cost	\$ 84.8	\$ 89.3
Variable lease cost	31.9	32.7
Sublease income	(1.6)	(1.7)
Total lease cost	<u>\$ 115.1</u>	<u>\$ 120.3</u>

Short-term lease cost is not material for the year ended December 31, 2021 and 2020 respectively.

Supplemental cash flow information related to leases for the year ended December 31, 2021 and 2020 was as follows:

	Years Ended December 31,	
	2021	2020
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash outflows	\$ 79.2	\$ 81.8
Right-of-use assets obtained in exchange for lease obligations		
Operating leases	\$ 62.5	\$ 109.0

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

As of December 31, 2021, the future lease payments under operating leases were as follows:

<u>Year Ended December 31</u>	<u>Twelve Months Ended</u> <u>2021</u>
	<u>Operating Leases</u>
2022	\$ 72.5
2023	60.2
2024	40.4
2025	28.7
2026	20.9
2027 and thereafter	37.8
Total lease payments	260.5
Less: Amount representing interest	39.8
Present value of lease obligation	<u>\$ 220.7</u>
Weighted average remaining lease term	5.1 years
Weighted average discount rate	6.6%

Contingencies related to LSC Communication, Inc. and Subsidiaries (“LSC”) and Donnelley Financial Solutions, Inc. (“Donnelley Financial”)

As a result of the spinoff of LSC Communications, Inc. and Subsidiaries (“LSC”) and Donnelley Financial Solutions, Inc. (“Donnelley Financial”) on October 1, 2016, we are contingently liable for obligations under various operating leases for office, warehouse and manufacturing locations of LSC and Donnelley Financial. In the event that LSC or Donnelley Financial, or any successor lessee, fail to make lease payments or fail to pay other obligations under these lease agreements, we may be required to satisfy those obligations to the lessor. Our exposure to these potential contingent liabilities decreases over time as LSC and Donnelley Financial pay monthly lease obligations and as the leases expire. As of December 31, 2021 these potential contingent obligations were \$29.0 million and \$1.2 million for LSC and Donnelley Financial, respectively.

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. In September 2020, a third-party (the “Buyer”) purchased the assets and assumed certain obligations of LSC. Although the Buyer assumed the majority of LSC’s existing leases, we continue to be contingently liable for these leases until their termination or renewal.

In May and June 2020 we became aware that LSC failed to make required monthly contributions to certain of their multiemployer pension plans (“MEPP”). In accordance with laws and regulations governing multiemployer pension plans, we and Donnelley Financial, as former members of the control group, are contingently liable on a joint and several liability basis for LSC’s MEPP obligations. During the third quarter of 2020, we commenced negotiations with Donnelley Financial concerning how the obligation will be apportioned between the parties. As such, the parties agreed to enter into mediation, and then arbitration, after an agreement was not reached through the mediation process. The arbitration proceedings were concluded in the fourth quarter of 2021, with two-thirds of the LSC MEPP liabilities assigned to us and the remaining one-third assigned to Donnelley Financial.

During the year ended December 31, 2021, we recorded a \$9.1 million expense within restructuring expense primarily representing the change in estimate resulting from the conclusion of the arbitration proceedings.

In 2021, we, and Donnelley Financial, commenced negotiations with each of the three MEPPs to settle the MEPP liabilities and, we successfully negotiated and executed settlements with two of the three plans. As of December 31, 2021 our remaining liability related to the unsettled plan was \$15.6 million. Scheduled payments to the remaining plan are scheduled to conclude on December 1, 2033.

Cash payments made by us during the twelve months ended December 31, 2021 for the LSC MEPP and other obligations were \$31.1 million, including \$18.4 million related to the settlement of the two MEPP plans and \$7.1 million paid to Donnelley Financial as a result of the arbitration decision.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Cybersecurity Attack

In December 2021, we identified a systems intrusion in our technical environment. In response, we promptly implemented a series of containment measures to address the situation, including activating our incident response protocols, shutting down servers and systems and commencing a forensic investigation. We also engaged cybersecurity experts to examine the incident and oversee the implementation of appropriate remedial actions. However, we became aware in mid-January 2022 that certain of our corporate data, the nature of which is continuing to be actively examined, was accessed and exfiltrated. To the extent any confidential client data is found in this data, the Company has and will continue to inform impacted clients within a reasonable time. We also notified and continue to work with appropriate law enforcement authorities. As a precautionary measure, we isolated a portion of our technical environment in an effort to contain the intrusion.

At this time, we have restored the affected systems and returned to normal levels of operations, and believe that the steps taken to isolate and remediate the identified threat have been effective. While we do not currently believe that this security event has or will result in a material adverse impact to the Company, data review and assessment related to this event remain ongoing, and we may determine in the future that such event had or will have a material adverse impact on our business, results of operations, financial condition or cash flows.

Note 9. Retirement Plans

We sponsor various defined benefit retirement income pension plans in the U.S., U.K., Canada and certain other international locations, including both funded and unfunded arrangements. Our primary defined benefit plans are frozen. No new employees will be permitted to enter our frozen plans 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. We fund at least the minimum amount required for all funded plans using actuarial cost methods and assumptions acceptable under government regulations.

We made contributions of \$5.0 million to our pension plans during the year ended December 31, 2021. We expect to make cash contributions of approximately \$4.3 million to our pension plans in 2022.

In addition to the pension plans, we sponsor a 401(k) savings plan, which is a defined contribution retirement income plan.

Certain former employees are entitled to healthcare and life insurance benefits provided they have met certain eligibility requirements. Generally, these former employees became eligible for these retiree healthcare benefits if they met all of the following requirements at the time of termination: (a) attained at least 55 or more points (full years of service and age combined), (b) were at least fifty years of age, (c) had at least two years of continuous, regular, full-time, benefits-eligible service and (d) completed at least two or more years of continuous service with a participating employer, which ended on their termination date. Different requirements need to be met in order to receive subsidized medical and life insurance coverage. This plan was frozen in 2016. Certain of the plan expenses are paid through a tax-exempt trust. Most of the assets of the trust are invested in trust-owned life insurance policies covering certain current and former employees of ours. The underlying assets of the policies are invested primarily in marketable equity, corporate fixed income and government securities.

We operate a prescription drug program for certain Medicare-eligible retirees under a group-based Company-sponsored Medicare Part D program, or Employer Group Waiver Program ("EGWP"). The EGWP subsidies provided to or for the benefit of this program are used to reduce our net retiree medical and prescription drug costs on a group by group basis until such net costs of ours for such group are eliminated, and any EGWP subsidies received in excess of the amount necessary to offset such net costs are used to reduce the included group of retirees' premiums.

We also maintain several pension and OPEB plans in certain international locations. The expected returns on plan assets and discount rates for these plans are determined based on each plan's investment approach, local interest rates and plan participant profiles.

The pension and OPEB plan obligations are calculated using generally accepted actuarial methods and are measured as of December 31.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

The components of the net periodic benefit expense, (income) and total (income) were as follows:

	Pension Benefits			OPEB		
	2021	2020	2019	2021	2020	2019
Service cost	\$ 1.2	\$ 1.0	\$ 1.0	\$ —	\$ —	\$ —
Interest cost	20.4	27.4	33.3	4.2	7.3	10.1
Expected return on plan assets	(38.2)	(40.8)	(46.3)	(11.9)	(12.6)	(13.2)
Amortization of prior service credit	0.1	0.1	—	(5.5)	(5.4)	(5.4)
Amortization of actuarial loss (gain)	11.5	10.0	6.1	(0.7)	(0.7)	(1.7)
Settlements and curtailments	0.4	1.4	(0.1)	—	—	—
Net periodic income	<u>\$ (4.6)</u>	<u>\$ (0.9)</u>	<u>\$ (6.0)</u>	<u>\$ (13.9)</u>	<u>\$ (11.4)</u>	<u>\$ (10.2)</u>

Weighted average assumption used to calculate net periodic benefit expense:

Discount rate	2.4%	3.0%	4.0%	2.2%	3.0%	4.2%
Expected return on plan assets	4.0%	4.6%	5.2%	5.8%	6.3%	6.5%

	Pension Benefits		OPEB	
	2021	2020	2021	2020
Benefit obligation at beginning of year	\$ 1,138.0	\$ 1,060.7	\$ 293.4	\$ 289.8
Service cost	1.2	1.0	—	—
Interest cost	20.4	27.4	4.2	7.3
Plan participants' contributions	—	—	6.2	7.8
Medicare reimbursements	—	—	7.2	7.9
Actuarial (gain) loss	(31.8)	86.0	(70.6)	8.1
Plan amendments and other	2.6	0.1	—	—
Settlements	(2.9)	(6.6)	—	—
Foreign currency translation	(2.0)	15.0	—	—
Benefits paid	(47.6)	(45.6)	(25.9)	(27.5)
Benefit obligation at end of year	<u>\$ 1,077.9</u>	<u>\$ 1,138.0</u>	<u>\$ 214.5</u>	<u>\$ 293.4</u>
Fair value of plan assets at beginning of year	\$ 1,090.2	\$ 985.6	\$ 237.2	\$ 227.7
Actual return on assets	44.8	132.1	22.9	21.0
Settlements	(2.9)	(6.6)	—	—
Employer contributions	5.0	9.2	—	7.2
Company reimbursements	—	—	—	(6.9)
Medicare reimbursements	—	—	7.2	7.9
Plan participants' contributions	—	—	6.2	7.8
Foreign currency translation	(2.6)	15.5	—	—
Benefits paid	(47.6)	(45.6)	(25.9)	(27.5)
Fair value of plan assets at end of year	<u>\$ 1,086.9</u>	<u>\$ 1,090.2</u>	<u>\$ 247.6</u>	<u>\$ 237.2</u>
Total net pension and OPEB asset (liability) recognized as of December 31	<u>\$ 9.0</u>	<u>\$ (47.8)</u>	<u>\$ 33.1</u>	<u>\$ (56.2)</u>

The accumulated benefit obligation for all defined benefit pension plans was \$1,068.6 million and \$1,126.2 million at December 31, 2021 and 2020, respectively.

Actuarial gains and losses result from changes in actuarial assumptions, such as changes in the discount rate and revised mortality rates. Actuarial gains in 2021 primarily relate to an increase in discount rates, and for the OPEB plan, to changes in assumptions concerning the expected usage of certain benefits within the U.S. plan to more closely align with historical usage. Actuarial losses in 2020 related primarily to a reduction in discount rates.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Amounts recognized in the Consolidated Balance Sheets as of December 31, 2021 and 2020 were as follows:

	Pension Benefits		OPEB	
	2021	2020	2021	2020
Prepaid pension cost (included in other noncurrent assets)	\$ 73.9	\$ 44.2	\$ —	\$ —
Prepaid OPEB cost (included in other noncurrent assets)	—	—	33.1	—
Accrued benefit cost (included in accrued liabilities)	(2.4)	(2.5)	—	(0.4)
Pension liabilities	(62.5)	(89.5)	—	—
OPEB plan liabilities	—	—	—	(55.8)
Net liabilities recognized in the Consolidated Balance Sheets	\$ 9.0	\$ (47.8)	\$ 33.1	\$ (56.2)

The amounts included in accumulated other comprehensive loss in the Consolidated Balance Sheets, excluding tax effects, at December 31, 2021 and 2020 were as follows:

	Pension Benefits		OPEB	
	2021	2020	2021	2020
Accumulated other comprehensive (loss) income				
Net actuarial (loss) gain	\$ (262.3)	\$ (312.3)	\$ 112.0	\$ 31.1
Net prior service credit	(5.3)	(2.9)	41.7	47.2
Total	\$ (267.6)	\$ (315.2)	\$ 153.7	\$ 78.3

The pre-tax amounts recognized in other comprehensive income in 2021 as components of net periodic benefit costs were as follows:

	Pension Benefits	OPEB
Amortization of:		
Net actuarial loss (gain)	\$ 11.5	\$ (0.7)
Net prior service credit	0.1	(5.5)
Amounts arising during the period:		
Net actuarial loss	38.5	81.7
Net prior service credit	(2.6)	—
Settlements	0.4	—
Foreign currency loss	(0.3)	(0.1)
Total	\$ 47.6	\$ 75.4

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 periodic benefit costs over the average remaining service period of a plan's active employees. As a result of the plan freezes, the actuarial gains and losses are recognized as a component of net periodic benefit costs over the average remaining life of a plan's active employees. Unrecognized prior service costs or credits are also recognized as a component of net periodic benefit cost over the average remaining service period of a plan's active employees. For plans that are frozen or primarily inactive, unrecognized prior service costs or credits are recognized over the average life expectancy of the plan's participants.

The weighted average assumptions used to determine the benefit obligation at the measurement date were as follows:

	Pension Benefits		OPEB	
	2021	2020	2021	2020
Discount rate	2.7%	2.4%	2.7%	2.2%
Health care cost trend:				
Current				
Pre-Age 65	—	—	5.0%	6.2%
Post-Age 65	—	—	5.0%	6.2%
Ultimate	—	—	4.0%	4.5%
Interest crediting rate for cash balance plans	2.3%	2.4%	—	—

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

The following table provides a summary of under-funded or unfunded pension benefit plans with projected benefit obligations in excess of plan assets as of December 31, 2021 and 2020:

	Pension Benefits			
	2021		2020	
Projected benefit obligation	\$	215.0	\$	872.0
Fair value of plan assets		150.1		780.0

The following table provides a summary of pension plans with accumulated benefit obligations in excess of plan assets as of December 31, 2021 and 2020:

	Pension Benefits			
	2021		2020	
Accumulated benefit obligation	\$	205.6	\$	860.1
Fair value of plan assets		150.1		780.0

We determine our assumption for the discount rate to be used for purposes of computing interest costs based on an index of high-quality corporate bond yields and matched-funding yield curve analysis as of the measurement date.

The Medicare Prescription Drug, Improvement and Modernization Act of 2003 included a prescription drug benefit under Medicare Part D, as well as a federal subsidy that began in 2006, to sponsors of retiree health care plans that provide a benefit that is at least actuarially equivalent, as defined in the Act, to Medicare Part D. Two of our retiree health care plans were at least actuarially equivalent to Medicare Part D and were eligible for the federal subsidy. During the years ended December 31, 2021 and 2020, Medicare Part D subsidies received by us were negligible.

During the year ended December 31, 2021 and 2020, we received approximately \$7.2 million and \$7.9 million in EGWP subsidies, respectively.

Benefit payments are expected to be paid as follows:

	Pension Benefits	OPEB-Gross	Estimated Subsidy Reimbursements
2022	49.0	\$ 19.1	\$ 0.9
2023	49.9	18.7	0.9
2024	51.4	18.1	0.9
2025	52.1	17.4	0.9
2026	52.9	16.7	0.8
2027-2031	273.8	73.6	3.7

Plan Assets

Our U.S. pension plans are frozen and we utilize a risk management approach for our U.S. 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. Over time, the target asset allocation percentage for the pension plan is expected to decrease for equity and other "return seeking" investments and increase for fixed income and other "hedging" investments. The assumed long-term rate of return for plan assets, which is determined annually, is likely to decrease as the asset allocation shifts over time. 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, 2021, for the primary U.S. pension plan was approximately 15% for return seeking investments and approximately 85% for hedging investments.

We segregated our plan assets by the following major categories and levels for determining their fair value as of December 31, 2021 and 2020. All plan assets that are valued using the net asset value per share ("NAV") practical expedient have not been included within the fair value hierarchy but are separately disclosed.

Cash and cash equivalents—Carrying value approximates fair value. As such, these assets were classified as Level 1. We also invest in certain short-term investments which are valued at their unit value per share available to eligible participants at the measurement date. As such, these assets were classified as Level 2.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Equity— The values of individual equity securities were based on quoted prices in active markets. As such, these assets are classified as Level 1. Additionally, this category includes underlying securities in trust owned life insurance policies which are invested in certain equity securities. These investments are not quoted on active markets; therefore, they are classified as Level 2. Additionally, we invest in certain equity funds that are valued at calculated NAV.

Fixed income— The values of certain fixed income securities were based on quoted prices in active markets. As such, these assets are classified as Level 1. The remaining fixed income securities are typically priced based on a valuation model rather than a last trade basis and are not exchange-traded. These valuation models involve utilizing dealer quotes, analyzing market information, estimating prepayment speeds and evaluating underlying collateral to equate an NAV. Accordingly, we classified these fixed income securities as Level 2. We also invest in certain fixed income funds and securities in trust owned life insurance policies which are valued at NAV and included as Level 2.

Real estate—The fair market value of real estate investment trusts is based on NAV.

For Level 2 plan assets, as applicable, we review 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 we believe the valuation methodologies used are appropriate, the use of different methodologies or assumptions in calculating fair value could result in different amounts. We invest in various assets in which valuation is determined by NAV. We believe 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.

The fair values of our pension plan assets at December 31, 2021 and 2020, by asset category were as follows:

Asset Category	December 31, 2021			December 31, 2020		
	Total	Level 1	Level 2	Total	Level 1	Level 2
Cash and cash equivalents	\$ 17.2	\$ 10.2	\$ 7.0	\$ 18.9	\$ 12.5	\$ 6.4
Equity	13.3	13.2	0.1	52.1	52.0	0.1
Fixed income	607.4	196.2	411.2	446.6	232.2	214.4
Other	14.5	0.2	14.3	10.9	0.2	10.7
Subtotal	\$ 652.4	\$ 219.8	\$ 432.6	\$ 528.5	\$ 296.9	\$ 231.6
Plan assets measured at NAV						
Equity funds	\$ 243.2			\$ 372.6		
Fixed income	157.9			145.5		
Hedge funds and other	19.7			30.4		
Real estate	13.7			13.2		
Total plan assets measured at NAV	\$ 434.5			\$ 561.7		
Total	\$ 1,086.9			\$ 1,090.2		

The fair values of our OPEB plan assets at December 31, 2021 and 2020, by asset category were as follows:

Asset Category	December 31, 2021			December 31, 2020		
	Total	Level 1	Level 2	Total	Level 1	Level 2
Cash and cash equivalents	\$ 54.2	\$ —	\$ 54.2	\$ 37.0	\$ —	\$ 37.0
Fixed income	31.2	—	31.2	31.3	—	31.3
Other	—	—	—	1.4	1.4	—
Subtotal	\$ 85.4	\$ —	\$ 85.4	\$ 69.7	\$ 1.4	\$ 68.3
Investments measured at NAV						
Equity funds	\$ 159.6			\$ 164.9		
Fixed income funds	2.6			2.6		
Total investments measured at NAV	\$ 162.2			\$ 167.5		
Total	\$ 247.6			\$ 237.2		

Employee 401(k) Savings Plan — For the benefit of most of our U.S. employees, we maintain a defined contribution retirement savings plan 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. We may provide a 401(k) discretionary match to participants, but did not during the years ended December 31, 2021, 2020 and 2019.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

MEPPs — MEPPs receive contributions from two or more unrelated employers pursuant to one or more collective bargaining agreements and the assets contributed by one employer may be used to fund the benefits of all employees covered within the plan. The risk and level of uncertainty related to participating in these MEPPs differs significantly from the risk associated with the Company-sponsored defined benefit plans. For example, investment decisions are made by parties unrelated to us and the financial stability of other employers participating in a plan may affect our obligations under the plan.

During each of the years ended December 31, 2021, 2020 and 2019, we recorded \$10.7 million, \$40.0 million and \$2.9 million for MEPP withdrawal obligations, respectively. These charges were recorded as net restructuring, impairment and other charges and represent our best estimate of the expected settlement of these withdrawal liabilities. Total contributions to these plans for the years ended December 31, 2021 and 2020 were \$31.9 million and \$10.3 million, respectively. See Note 5, *Restructuring, Impairment and Other Charges*, for further discussion on MEPP.

Note 10. Income Taxes

The components of income (loss) before income taxes for the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
U.S.	\$ (75.8)	\$ (123.8)	\$ (65.1)
Foreign	124.5	107.9	115.7
Total	<u>\$ 48.7</u>	<u>\$ (15.9)</u>	<u>\$ 50.6</u>

The components of income tax expense for the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
U.S. Federal:			
Current	\$ 6.5	\$ (4.8)	\$ 7.7
Deferred	7.0	(5.3)	6.3
State:			
Current	(2.3)	(0.7)	0.4
Deferred	2.4	(5.2)	7.6
Foreign:			
Current	27.8	27.3	24.4
Deferred	3.5	(1.3)	8.5
Total	<u>\$ 44.9</u>	<u>\$ 10.0</u>	<u>\$ 54.9</u>

The following is a reconciliation of income tax expense at the U.S. federal statutory tax rate for the years ended December 31, 2021, 2020 and 2019:

	2021	2020	2019
Income taxes at the U.S. federal statutory tax rate	\$ 10.3	\$ (3.3)	\$ 10.6
Change in valuation allowances	(3.2)	(3.7)	8.1
Interest limitation valuation allowance	18.8	(8.0)	27.8
State and local income taxes, net of U.S. federal income tax benefit	5.5	4.7	(7.3)
Foreign tax	2.9	(2.1)	5.1
Adjustment of uncertain tax positions and interest	(5.6)	1.1	(0.6)
Foreign tax rate differential	(0.3)	(0.8)	(0.5)
Tax impact of net gain on sale of Donnelley Financial and LSC shares	—	—	0.5
Global intangible low-taxed income	5.0	3.5	5.2
Corporate owned life insurance policies	—	17.3	—
Non-deductible compensation	9.1	—	—
Other	2.4	1.3	6.0
Total	<u>\$ 44.9</u>	<u>\$ 10.0</u>	<u>\$ 54.9</u>

For 2021, we continue to report the tax impact of limitations on our interest expense deduction. Non-deductible interest expense will be carried forward as a deferred tax asset; however, it is more likely than not that the benefit of the deferred tax asset will not be fully realized and a full valuation allowance was recorded. Also included in 2021 is the tax impact of non-deductible compensation.

Included in 2020 is the impact from the surrender of corporate owned life insurance policies as well as tax benefits from additional interest expense deductions as result of the CARES Act and additional tax guidance issued in 2020.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Deferred income taxes

The significant deferred tax assets and liabilities at December 31, 2021 and 2020 were as follows:

	2021	2020
Deferred tax assets:		
Pension and OPEB plan liabilities	\$ —	\$ 29.1
Net operating losses and other tax carryforwards	189.5	195.6
Interest limitation carryforward	38.6	21.4
Accrued liabilities	37.7	48.6
Foreign depreciation	8.2	19.4
Operating lease liabilities	55.9	59.4
Other	14.1	16.7
Total deferred tax assets	344.0	390.2
Valuation allowances	(200.7)	(195.7)
Net deferred tax assets	\$ 143.3	\$ 194.5
Deferred tax liabilities:		
Accelerated depreciation	\$ (36.3)	\$ (50.0)
Other intangible assets	(6.4)	(8.1)
Inventories	(10.4)	(8.6)
Operating lease assets	(54.6)	(58.1)
Pension and OPEB plan liabilities	(10.3)	—
Other	(8.3)	(5.7)
Total deferred tax liabilities	(126.3)	(130.5)
Total net deferred tax assets	\$ 17.0	\$ 64.0

Transactions affecting the valuation allowances on deferred tax assets during the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Balance, beginning of year	\$ 195.7	\$ 237.5	\$ 255.9
Current year expense-net	13.3	(44.8)	34.5
Write-offs	—	—	(50.1)
Foreign exchange and other	(8.3)	3.0	(2.8)
Balance, end of year	\$ 200.7	\$ 195.7	\$ 237.5

As of December 31, 2021, we had domestic and foreign net operating loss and other tax credit carryforwards of approximately \$120.5 million and \$69.0 million (\$126.8 million and \$68.8 million, respectively, at December 31, 2020), of which \$110.0 million expires between 2022 and 2031. Limitations on the utilization of these deferred tax assets may apply therefore we have provided valuation allowances of \$162.1 million on these deferred tax assets as of December 31, 2021 (\$174.4 million at December 31, 2020).

We are not permanently reinvested on certain foreign earnings yet remain permanently reinvested on all other foreign earnings and other outside basis differences. We have recognized deferred tax liabilities of \$5.0 million, \$4.5 million and \$6.7 million as of December 31, 2021, 2020 and 2019, respectively, related to local taxes on certain foreign earnings which are not considered to be permanently reinvested.

Cash payments for income taxes were \$43.0 million, \$68.7 million and \$73.1 million during the years ended December 31, 2021, 2020 and 2019, respectively. Cash refunds for income taxes were \$3.8 million, \$7.2 million and \$12.1 million during the years ended December 31, 2021, 2020 and 2019, respectively.

Our income taxes payable for federal and state purposes has been reduced by the tax benefits associated with the vesting of stock based compensation awards.

As a result of the Tax Cuts and Jobs Act of 2017, in our 2017 (and adjusted in 2018) results of operations, a one-time transition tax on foreign earnings was recorded and such liability is payable over a period of eight years. The long-term income tax liability is \$60.3 million and \$68.3 million at December 31, 2021 and 2020, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

See Note 14, *Other Comprehensive Loss*, for details of the income tax expense or benefit allocated to each component of other comprehensive loss.

Uncertain tax positions

Changes in unrecognized tax benefits at December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019
Balance at beginning of year	\$ 20.7	\$ 23.1	\$ 25.0
Additions for tax positions of the current year	—	—	0.1
Additions for tax positions of prior years	—	4.1	—
Reductions for tax positions of prior years	—	(2.1)	—
Settlements during the year	(3.9)	(2.9)	(0.4)
Lapses of applicable statutes of limitations	(2.8)	(1.5)	(1.6)
Balance at end of year	<u>\$ 14.0</u>	<u>\$ 20.7</u>	<u>\$ 23.1</u>

As of December 31, 2021, 2020 and 2019, we had \$14.0 million, \$20.7 million and \$23.1 million, respectively, of unrecognized tax benefits. Unrecognized tax benefits of \$6.0 million as of December 31, 2021, if recognized, would decrease income taxes.

As of December 31, 2021, it is reasonably possible that the total amount of unrecognized tax benefits will decrease within twelve months by as much as \$6.9 million due to the resolution of audits or expirations of statutes of limitations related to U.S. federal, state and international tax positions.

We classify interest expense and any related penalties related to income tax uncertainties as a component of income tax expense. The total interest (benefit) expense related to tax uncertainties recognized in the Consolidated Statements of Operations were insignificant for the years ended December 31, 2021, 2020 and 2019, respectively. There were no benefits from the reversal of accrued penalties for the years ended December 31, 2021, 2019 and 2019. Accrued interest of \$2.1 million and \$3.7 million related to income tax uncertainties are reported in Other noncurrent liabilities in the Consolidated Balance Sheets at December 31, 2021 and 2020, respectively. There were no accrued penalties related to income tax uncertainties for the years ended December 31, 2021 and 2020.

We have tax years from 2010 and thereafter that remain open and subject to examination by the IRS, certain state taxing authorities or certain foreign tax jurisdictions.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 11. Debt

Debt at December 31, 2021 and 2020 consisted of the following:

	2021	2020
Borrowings under the ABL Credit Facility	\$ 32.0	\$ —
8.875% debentures due April 15, 2021	—	55.6
7.000% notes due February 15, 2022	—	79.3
6.500% notes due November 15, 2023	75.0	75.0
Term Loan due January 15, 2024 (a)	149.4	535.8
6.000% notes due April 1, 2024	61.7	61.7
6.125% notes due November 1, 2026	451.0	—
8.250% notes due July 1, 2027	245.8	245.8
6.625% debentures due April 15, 2029	103.4	103.4
8.500% notes due April 15, 2029	303.5	301.6
8.820% debentures due April 15, 2031	54.5	54.5
Unamortized debt issuance costs	(10.0)	(9.6)
Total debt	1,466.3	1,503.1
Less: current portion		61.1
Long-term debt	\$ 1,466.3	\$ 1,442.0

(a) As of December 31, 2021 and 2020, the interest rate on the Term Loan due January 15, 2024 was 5.10% and 5.15%, respectively.

The fair values of the senior notes and debentures, which were determined using the market approach based upon quoted prices or interest rates available to us for debt obligations with similar terms and maturities, were determined to be Level 2 under the fair value hierarchy. The fair value of our total debt was greater than its book value by approximately \$339.8 million and \$142.9 million at December 31, 2021 and 2020, respectively.

On December 15, 2021, we redeemed the remaining \$79.3 million aggregate principal outstanding of the 7.00% notes due 2022 (the “2022 Notes”) using borrowings under our ABL Credit Facility. The redemption price included a premium of \$0.8 million.

On April 28, 2021, we completed an offering of \$400.0 million aggregate principal amount of 6.125% senior secured notes due 2026 (the “Secured Notes”) at par. On May 10, 2021, we completed an additional \$50.0 million offering of the Secured Notes that were issued at a \$1.1 million premium, increasing the aggregate principal amount of the Secured Notes to \$450.0 million. The Secured Notes are general senior secured obligations of the Company and are guaranteed by our domestic, wholly-owned subsidiaries that are guarantors of the ABL Credit Facility and Term Loan (the “Guarantors”). Interest on the Secured Notes is payable semi-annually on May 1 and November 1 of each year, commencing on November 1, 2021. The Secured Notes mature on November 1, 2026. The proceeds from the offerings of the Secured Notes were used to repay \$387.6 million of principal outstanding under our Term Loan and to reduce the outstanding balance under our senior secured asset-based revolving credit facility (the “ABL Credit Facility”), including the amount borrowed for repayment of the \$55.6 million principal outstanding of the 8.875% Debentures that matured on April 15, 2021.

On April 16, 2021, we amended our ABL Credit Facility to, among other things, extend the maturity date from September 29, 2022 to April 16, 2026 and reduce the aggregate commitments from \$800.0 million to \$650.0 million.

During the year ended December 31, 2020, we executed various transactions that reduced our near-term maturities and extended our debt maturity profile. During this period, we repurchased on the open market \$98.5 million aggregate principal of debt maturing in 2020, 2021, and 2022, including \$1.3 million of the 7.625% notes due 2020 (the “2020 Notes”), \$67.6 million aggregate principal of 7.875% notes due 2021 (the “2021 Notes”), \$1.3 million aggregate principal of the 8.875% debentures due 2021 (the “2021 Debentures”), and \$28.3 million aggregate principal of the 2022 Notes using available cash. These repurchases included a cumulative premium of \$0.9 million.

On December 4, 2020, we redeemed the remaining \$83.3 million aggregate principal outstanding of the 2021 Notes using a combination of available cash and a borrowing under our ABL Credit Facility. The redemption price included a premium of \$1.7 million.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

On June 18, 2020, we completed a public exchange transaction in which we exchanged \$246.2 million aggregate principal amount of the Company's debt held by various investors maturing between 2021 and 2024 (the "Old Debt") for \$244.9 million aggregate principal amount of newly issued unsecured 8.25% notes due 2027 (the "New 2027 Notes"). The Old Debt that was exchanged consisted of \$16.4 million of the 2021 Notes; \$3.3 million of the 2021 Debentures; \$25.8 million of the 2022 Notes; \$161.6 million of the 6.500% notes due 2023 (the "2023 Notes"); and \$39.1 million of the 6.000% of notes due 2024 (the "2024 Notes"). Other than the interest rate, the terms of the New 2027 Notes are substantially similar to the terms of the Old Debt. We treated the transaction as a debt modification, which resulted in a premium on the New 2027 Notes of approximately \$1.0 million.

In March 2020, we entered into privately negotiated agreements with the largest holder of our outstanding notes (the "Holder") to extend a significant portion of the Company's 2023 and 2024 maturities. The agreements included the exchange of \$277.0 million aggregate principal amount of notes owned by the Holder, consisting of \$54.0 million of the 2023 Notes, \$177.4 million of the 2024 Notes, and \$45.6 million of the 6.625% debentures due 2029 (the "2029 Debentures") for \$297.0 million aggregate principal amount of newly issued unsecured 8.50% notes due 2029 (the "New 2029 Notes"). Other than the interest rate, the terms of the New 2029 Notes are substantially similar to the terms of the 2029 Debentures. We treated the transaction as a debt modification, which resulted in a discount on the New 2029 Notes of approximately \$20 million, inclusive of approximately \$0.3 million of fees paid to the Holder. The exchange was executed in a series of transactions that were completed on April 8, 2020. The agreements also included the repurchase of \$6.6 million of the 2022 Notes and \$20.0 million of the 2024 Notes. These repurchases were completed in March and were funded with a draw from our ABL Credit Facility. We recorded a gain of \$0.2 million on these repurchases.

In May 2020, we entered into an additional agreement with the Holder in which the Holder agreed to exchange approximately \$9.0 million aggregate principal amount of the 2029 Debentures and \$14.5 million aggregate principal amount of 8.820% Debentures due 2031 for approximately \$21.2 million aggregate principal amount of New 2029 Notes. This transaction was completed on June 19, 2020. We treated the transaction as a debt modification, which resulted in a premium on the New 2029 Notes of approximately \$2.1 million, inclusive of \$0.2 million of fees paid to the Holder.

During the year ended December 31, 2019, we repurchased on the open market \$23.4 million and \$20.7 million in aggregate principal amount of the 2021 Notes and 2021 Debentures, respectively. We recorded a loss on debt extinguishment of \$0.8 million in 2019 on these repurchases.

The amount available to be borrowed under the ABL Credit Facility is equal to the lesser of (a) \$650.0 million and (b) a borrowing base formula based on the amount of accounts receivable, inventory, machinery, equipment and, if we were to so elect in the future subject to the satisfaction of certain conditions, fee-owned real estate of ours and our material domestic subsidiaries, subject to certain eligibility criteria and advance rates (collectively, the "Borrowing Base"). The aggregate amount of real estate, machinery and equipment that can be included in the Borrowing Base formula cannot exceed \$175.0 million.

Borrowings under the ABL Credit Facility bear interest at a rate dependent on the average quarterly availability and is calculated according to a base rate (except in certain circumstances, based on the prime rate) or a Eurocurrency rate (except in certain circumstances, based on LIBOR) plus an applicable margin. The applicable margin for base rate loans ranges from 0.25% to 0.75% and the applicable margin for Eurocurrency loans ranges from 1.25% to 1.75%. In addition, a fee is payable quarterly on the unused portion of the total commitments. This fee accrues at a rate of either 0.25% or 0.375% depending upon the average usage of the facility. Borrowings under the ABL Credit Facility may be used for working capital and general corporate purposes.

Based on our Borrowing Base as of December 31, 2021 and existing borrowings, we had approximately \$550.7 million of borrowing capacity available under the ABL Credit Facility. The weighted average interest rate on borrowings under our ABL Credit Facility was 1.5%, 1.7%, 3.7% for the years ended December 31, 2021, 2020 and 2019, respectively.

Our obligations under the ABL Credit Facility are guaranteed by the Guarantors and are secured by a security interest in substantially all assets of ours and the Guarantors, including, only to the extent included in the Borrowing Base, real property, in each case subject to certain exceptions and exclusions. The assets of ours and the Guarantors consisting of accounts receivable, inventory, deposit accounts, securities accounts, machinery and equipment and, to the extent related to the foregoing, general intangibles, documents and instruments, as well as 65% of the equity interests of our first-tier foreign subsidiaries (collectively, the "ABL Priority Collateral"), secure our obligations and the obligations of the Guarantors under the ABL Credit Facility and the related guarantees on a first-priority basis, and all other collateral other than the ABL Priority Collateral secures our obligations and the obligations of the Guarantors under the ABL Credit Facility on a second-priority basis, in each case, subject to permitted liens.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Our obligations under the Term Loan Credit Agreement and the Secured Notes are guaranteed by the Guarantors and are secured by a security interest in substantially all assets of ours and the Guarantors, including certain material real property, subject to certain exceptions and exclusions. The ABL Priority Collateral secures our obligations and the obligations of the Guarantors under the Term Loan Credit Agreement and the Secured Notes and related guarantees on a second-priority basis, and all other collateral other than the ABL Priority Collateral secures our obligations and the obligations of the Guarantors under the Term Loan Credit Agreement and the Secured Notes and related guarantees on a first-priority basis, in each case, subject to permitted liens.

The credit agreements for our ABL Credit Facility (the "ABL Credit Agreement") and Term Loan (the "Term Loan Credit Agreement"), and the indenture for the Secured Notes (the "Secured Notes Indenture") contain customary affirmative and negative covenants including negative covenants restricting, among other things, our ability to incur or guarantee debt, or issue preferred stock, make certain loans or investments, make certain restricted payments (including payments on certain other debt, external dividends, and stock repurchases), incur liens securing other debt, consummate certain fundamental transactions, enter into certain transactions with affiliates and consummate asset sales. The ABL Credit Agreement contains a covenant which requires us to maintain a minimum fixed charge coverage ratio of 1.0 to 1.0 if availability under the ABL Credit Facility declines below certain levels. The Term Loan Credit Agreement and the Secured Notes Indenture require that the net cash proceeds of significant asset sales be used to prepay the Term Loan and purchase the Secured Notes to the extent that the net cash proceeds are not used for reinvestment in assets useful to our business, certain acquisitions and investments, repayment of certain borrowings under our ABL Credit Facility or to reduce, prepay, repay or purchase certain indebtedness, in each case, subject to certain restrictions and limitations set forth in the Term Loan Credit Agreement and the Secured Notes Indenture.

As of December 31, 2021, we had \$32.0 million of outstanding borrowings and \$67.3 million of letters of credit issued under the ABL Credit Facility. We also had \$143.4 million in other uncommitted credit facilities, primarily outside the U.S. (the "Other Facilities"), of which we had \$111.9 million in outstanding letters of credit, bank guarantees and bank acceptance drafts.

At December 31, 2021, the future maturities of debt were as follows:

	<u>Amount</u>
2022	—
2023	75.0
2024	211.7
2025	—
2026	482.0
2027 and thereafter	721.3
Total (a)	<u>\$ 1,490.0</u>

(a) Excludes unamortized debt issuance costs of \$10.0 million and \$13.7 million of bond discount which do not represent contractual commitments with a fixed amount or maturity date.

Interest expense

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

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Interest incurred	\$ 130.9	\$ 138.6	\$ 155.7
Less: interest income	1.5	1.5	2.7
Less: interest capitalized as property, plant and equipment	1.8	2.0	2.4
Interest expense, net	<u>\$ 127.6</u>	<u>\$ 135.1</u>	<u>\$ 150.6</u>

Interest paid was \$114.4 million, \$125.8 million and \$158.6 million for the years ended December 31, 2021, 2020 and 2019, respectively.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 12. Derivatives

We are exposed to the impact of foreign currency fluctuations based on our global operations. Foreign currency fluctuations affect the U.S. dollar value of revenues earned and expenses incurred in foreign currencies. We are also exposed to currency risk to the extent we own assets or incur liabilities, or enter into other transactions that are not in the functional currency of the subsidiary in which we operate. We employ different practices to manage these risks, including where appropriate the use of derivative instruments, such as foreign currency forward contracts. To the extent the gains and losses associated with the fair values of foreign currency derivatives are recognized in the Consolidated Statements of Operations, they are generally offset by gains and losses on underlying payables, receivables and net investments in foreign subsidiaries. We do not use derivative financial instruments for trading or speculative purposes. The aggregate notional value of the forward contracts at December 31, 2021 and 2020 was \$236.4 million and \$220.7 million, respectively. The fair values of foreign currency contracts were determined to be Level 2 under the fair value hierarchy and are valued using market exchange rates.

In 2019 and 2020, we entered into interest rate swap agreements to manage interest rate risk exposure, effectively changing the interest rate on \$400.0 million of our floating-rate Term Loan based on LIBOR to a fixed-rate. The interest rate swaps, with a notional value of \$400.0 million, were designated as cash flow hedges against the variability of cash flows associated with our Term Loan scheduled to mature on January 15, 2024, which are attributable to changes in the benchmark interest rate. In the second quarter of 2021, we terminated interest rate swap agreements with a notional value of \$300.0 million in conjunction with the partial repayment of our Term Loan. The termination of these agreements resulted in a loss of \$9.2 million recorded within interest expense on the Consolidated Statement of Operations for the twelve months ended December 31, 2021.

The fair value of the remaining \$100.0 million interest rate swap was determined to be Level 2 under the fair value hierarchy and was developed using the market standard methodology of netting the discounted future variable cash payments and the discounted expected fixed cash receipts. Credit valuation adjustments, which consider the impact of any credit enhancements to the contracts, are incorporated in the fair value to account for potential nonperformance risk. We evaluate the credit value adjustments of the interest rate swap agreement, which take into account the possibility of counterparty and our own default, on at least a quarterly basis.

We manage credit risk for our derivative positions on a counterparty-by-counterparty basis, considering the net portfolio exposure with each counterparty, consistent with our risk management strategy for such transactions. Our agreements with each of our counterparties contain a provision where we could be declared in default on our derivative obligations if we either default or, in certain cases, are capable of being declared in default of any of our indebtedness greater than specified thresholds. These agreements also contain a provision where we could be declared in default subsequent to a merger or restructuring type event if the creditworthiness of the resulting entity is materially weakened.

As of December 31, 2021 and 2020, the fair values of our derivative financial instruments and their classifications on the Consolidated Balance Sheets were as follows:

	<u>Classification on Consolidated Balance Sheets</u>	<u>2021</u>	<u>2020</u>
Derivative assets			
Foreign currency contracts:			
Not designated as hedging instruments	Prepaid expenses and other current assets	\$ 2.6	\$ 5.9
Derivative liabilities			
Foreign currency contracts:			
Not designated as hedging instruments	Accrued liabilities and other	\$ —	\$ 2.3
Interest rate swap agreements:			
Designated as cash flow hedges	Accrued liabilities and other	\$ 0.9	\$ 5.0
Designated as cash flow hedges	Other noncurrent liabilities	\$ 0.2	\$ 9.6

The pre-tax (gains) losses recognized on derivative financial instruments in the Consolidated Statements of Operations for the years ended December 31, 2021, 2020 and 2019 were as follows:

	<u>Classification of (Gain) Loss Recognized in the Consolidated Statements of Operations</u>	<u>2021</u>	<u>2020</u>	<u>2019</u>
Derivatives not designated as hedges				
Foreign currency contracts	Selling, general and administrative expenses	\$ (11.8)	\$ (13.6)	\$ 1.5
Derivatives designated as cash flow hedges				
Interest rate swap agreements	Interest expense, net	11.9	3.4	(0.1)

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

The pre-tax (gains) losses recognized on derivative financial instruments in the Consolidated Statements of Comprehensive Loss for the years ended December 31, 2021, 2020 and 2019 were as follows:

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Derivatives designated as cash flow hedges			
Interest rate swap agreements	\$ (1.6)	\$ 19.0	\$ (1.1)

Note 13. Earnings per Share

Basic earnings per share is calculated by dividing net earnings attributable to RRD common stockholders by the weighted average number of common shares outstanding for the period. In computing diluted earnings per share, basic earnings per share is adjusted for the assumed issuance of all potentially dilutive share-based awards, including stock options, restricted stock units and performance share units. Performance share units are excluded if the performance targets upon which the issuance of the shares is contingent have not been achieved and the respective performance period has not been completed as of the end of the current period. Additionally, stock options are considered anti-dilutive when the exercise price exceeds the average market value of our stock price during the applicable period. In periods when we are in a net loss from continuing operations, share-based awards are excluded from the calculation of earnings per share as their inclusion would have an antidilutive effect.

During the years ended December 31, 2021, 2020 and 2019, no shares of common stock were purchased by us, however, shares were withheld for tax liabilities upon the vesting of equity awards.

The reconciliation of the numerator and denominator of the basic and diluted earnings per share calculation and the anti-dilutive share-based awards for the years ended December 31, 2021, 2020 and 2019 were as follows:

	<u>2021</u>	<u>2020</u>	<u>2019</u>
Basic net earnings (loss) per share attributable to RRD common stockholders:			
Continuing operations	\$ 0.04	\$ (0.37)	\$ (0.07)
Discontinued operations	\$ 0.01	1.73	(1.24)
Net earnings (loss) attributable to RRD stockholders	\$ 0.05	\$ 1.36	\$ (1.31)
Diluted net earnings (loss) per share attributable to RRD common stockholders:			
Continuing operations	\$ 0.04	\$ (0.37)	\$ (0.07)
Discontinued operations	\$ 0.01	1.73	(1.24)
Net earnings (loss) attributable to RRD stockholders	\$ 0.05	\$ 1.36	\$ (1.31)
Numerator:			
Net income (loss) from continuing operations	\$ 3.1	\$ (26.4)	\$ (4.8)
Net income (loss) from discontinued operations	\$ 0.6	124.9	(88.4)
Net income (loss) attributable to RRD stockholders	\$ 3.7	\$ 98.5	\$ (93.2)
Denominator:			
Basic and diluted weighted average number of common shares outstanding	73.2	72.3	71.2
Dilutive options and awards	1.3	—	—
Diluted weighted average number of common shares outstanding	74.5	72.3	71.2
Weighted average number of anti-dilutive share-based awards:			
Stock options	0.2	0.3	0.5
Restricted stock units	—	1.1	1.0
Total	0.2	1.4	1.5
Dividends declared per common share	\$ —	\$ 0.03	\$ 0.12

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 14. Other Comprehensive Income (Loss)

The components of other comprehensive income (loss) and income tax expense allocated to each component for the years ended December 31, 2021, 2020 and 2019 were as follows:

	2021			2020			2019		
	Before Tax Amount	Income Tax	Net of Tax Amount	Before Tax Amount	Income Tax	Net of Tax Amount	Before Tax Amount	Income Tax	Net of Tax Amount
Translation adjustments	\$ (11.1)	\$ —	\$ (11.1)	\$ 27.8	\$ —	\$ 27.8	\$ 7.0	\$ —	\$ 7.0
Adjustment for net periodic pension and OPEB plan cost	123.0	31.3	91.7	10.3	3.1	7.2	(39.8)	(9.3)	(30.5)
Changes in fair value of derivatives	13.5	3.4	10.1	(15.6)	(3.6)	(12.0)	1.0	—	1.0
Other comprehensive income (loss)	<u>\$ 125.4</u>	<u>\$ 34.7</u>	<u>\$ 90.7</u>	<u>\$ 22.5</u>	<u>\$ (0.5)</u>	<u>\$ 23.0</u>	<u>\$ (31.8)</u>	<u>\$ (9.3)</u>	<u>\$ (22.5)</u>

The following table summarizes changes in accumulated other comprehensive loss by component for the years ended December 31, 2021, 2020 and 2019:

	Changes in the Fair Value of Derivatives	Pension and OPEB Plan Cost	Translation Adjustments	Total
Balance at January 1, 2019	<u>\$ —</u>	<u>\$ (155.2)</u>	<u>\$ 1.4</u>	<u>\$ (153.8)</u>
Other comprehensive income (loss) before reclassifications	1.1	(29.7)	3.0	(25.6)
Amounts reclassified from accumulated other comprehensive loss	(0.1)	(0.8)	4.1	3.2
Net change in accumulated other comprehensive loss	1.0	(30.5)	7.1	(22.4)
Balance at December 31, 2019	<u>\$ 1.0</u>	<u>\$ (185.7)</u>	<u>\$ 8.5</u>	<u>\$ (176.2)</u>
Other comprehensive income (loss) before reclassifications	(15.4)	2.8	27.1	14.5
Amounts reclassified from accumulated other comprehensive loss	3.4	4.4	—	7.8
Net change in accumulated other comprehensive loss	(12.0)	7.2	27.1	22.3
Balance at December 31, 2020	<u>\$ (11.0)</u>	<u>\$ (178.5)</u>	<u>\$ 35.6</u>	<u>\$ (153.9)</u>
Other comprehensive (loss) income before reclassifications	(1.8)	87.3	(11.0)	74.5
Amounts reclassified from accumulated other comprehensive loss	11.9	4.4	—	16.3
Net change in accumulated other comprehensive loss	10.1	91.7	(11.0)	90.8
Balance at December 31, 2021	<u>\$ (0.9)</u>	<u>\$ (86.8)</u>	<u>\$ 24.6</u>	<u>\$ (63.1)</u>

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Reclassifications from accumulated other comprehensive loss for the year ended December 31, 2021, 2020 and 2019 were as follows:

	2021	2020	2019	Classification in the Consolidated Statements of Operations
Translation Adjustments:				
Net realized loss	\$ —	\$ —	\$ 4.1	(a)
Reclassifications, net of tax	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 4.1</u>	
Amortization of pension and OPEB plan cost:				
Net actuarial loss	\$ 10.8	\$ 9.3	\$ 4.4	(b)
Net prior service credit	(5.4)	(5.3)	(5.4)	(b)
Curtailments and settlements	0.4	1.4	(0.1)	(b)
Reclassifications before tax	5.8	5.4	(1.1)	
Income tax benefit (expense)	1.4	1.0	(0.3)	
Reclassifications, net of tax	<u>\$ 4.4</u>	<u>\$ 4.4</u>	<u>\$ (0.8)</u>	
Derivatives:				
Net realized loss (gain)	\$ 11.9	\$ 3.4	\$ (0.1)	(c)
Reclassifications, net of tax	<u>\$ 11.9</u>	<u>\$ 3.4</u>	<u>\$ (0.1)</u>	
Total reclassifications, net of tax	<u>\$ 16.3</u>	<u>\$ 7.8</u>	<u>\$ 3.2</u>	

- (a) Included within selling, general and administrative expenses in the Consolidated Statements of Operations.
(b) These accumulated other comprehensive (loss) income components are included in the calculation of net periodic pension and OPEB plan (income) expense recognized in cost of sales and net investment and other income in the Consolidated Statements of Operations (see Note 9, *Retirement Plans*).
(c) Included within net interest expense in the Consolidated Statements of Operations.

Note 15. Stock and Incentive Programs for Employees and Directors

We recognize compensation expense based on estimated grant date fair values for all share-based awards issued to employees and directors, including stock options, restricted stock units and performance share units. We estimate the fair value of share-based awards based on assumptions as of the grant date. We recognize compensation expenses for those awards 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 for restricted stock awards and stock options and the performance period for performance share units. For those awards in which there is no requisite service period, we immediately recognize the compensation expense. We recognize forfeitures as they occur as a reduction of compensation expense.

Share-Based Compensation Expense

The total share-based compensation expense was \$7.1 million, \$8.1 million and \$10.9 million for the years ended December 31, 2021, 2020 and 2019, respectively. As of December 31, 2021, \$6.4 million of unrecognized compensation expense related to share-based compensation plans is expected to be recognized over a weighted-average period of 1.9 years.

Share-Based Compensation Plans

We have one share-based compensation plan under which we may grant future awards, as described below, and one terminated share-based compensation plan under which awards remain outstanding.

The 2017 Performance Incentive Plan (“2017 PIP”) was approved by stockholders to provide incentives to our key employees. Awards under the 2017 PIP are generally not restricted to any specific form or structure and could include, without limitation, stock options, stock units, restricted stock awards, cash or stock bonuses and stock appreciation rights. There were 15.1 million shares of common stock reserved and authorized for issuance under the 2017 PIP. At December 31, 2021, there were 7.4 million shares of common stock authorized and available for grant under the 2017 PIP.

General Terms of Awards

Under various incentive plans, we have granted certain employees non-qualified stock options, restricted stock units, performance share units and cash-settled stock units (“phantom stock units”). The Human Resources Committee of the Board of Directors has discretion to establish the terms and conditions for grants, including the number of shares, vesting and required service or other performance criteria. The maximum term of any award under the 2017 PIP and previous plans is ten years.

The exercise price of a stock option is equal to the closing price of our common stock on the option grant date and generally vest over four years. Options generally expire ten years from the date of grant or five years after the date of retirement, whichever is earlier.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

The rights granted to the recipient of restricted stock unit awards generally accrue ratably over the restriction or vesting period, which is generally three years. We have also granted restricted stock unit awards which cliff vest three years from the grant date. Restricted stock unit 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, termination of the grantee's employment under certain circumstances or a change in control of the Company. We record compensation expense of restricted stock unit awards based on the fair value of the awards at the date of grant ratably over the period during which the restrictions lapse. Dividends are not paid on restricted stock units.

Awards that may be paid in cash are classified as liability awards due to their expected settlement in cash, and are included in Accrued liabilities and other in the Consolidated Balance Sheets. Compensation expense for these awards is measured based upon the fair value of the awards at the end of each reporting period. Awards payable only in shares are classified as equity awards due to their expected settlement in common stock. Compensation expense for these awards is measured based upon the fair value of the awards at the date of grant. Dividend equivalents are accrued for shares awarded to the Board of Directors and paid in the form of cash.

We have granted performance share unit awards to certain executive officers and senior management. Distributions under these awards are payable at the end of their respective performance periods in common stock or cash, at our discretion. The number of share units that vest can range from zero to 150% for the 2021, 2020 and 2019 awards, depending on achievement of a targeted performance metric for a performance period of three years inclusive of the year in which the award was granted. These awards are subject to forfeiture upon termination under certain circumstances prior to vesting. We expense the cost of the performance share unit awards based on the fair value of the awards at the date of grant and the estimated achievement of the performance metric, ratably over the performance period of three years.

In addition, we have granted phantom restricted and performance stock units to certain members of senior management. Phantom restricted stock units vest and are payable in three equal installments over a period of three years after the grant date. Phantom performance stock units vest at the end of their respective performance periods. The number of phantom performance share units that vest can range from zero to 150% for the 2021, 2020 and 2019 awards, depending on achievement of a targeted performance metric for a performance period of three years inclusive of the year in which the award was granted. Phantom stock units are not shares of our common stock and therefore the recipients of these awards do not receive ownership interest in the Company or stockholder voting rights. These 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, termination of the grantee's employment under certain circumstances or a change in control of the Company. All phantom stock unit awards are classified as liability awards due to their expected settlement in cash, and are included in Accrued liabilities and other in the Consolidated Balance Sheets. Compensation expense for these awards is measured based upon the fair value of the awards at the end of each reporting period and, for Phantom performance shares, the estimated achievement of the performance metric. Dividends are not paid on phantom stock units. Total compensation expense for phantom awards was \$33.3 million, \$3.1 million and \$3.0 million for the years ended December 31, 2021, 2020 and 2019, respectively.

Acceleration of Vesting of Certain Awards

In connection with the Merger, certain executive officers of the Company may become entitled to payments and benefits that may be treated as excess parachute payments within the meaning of Section 280G of the Internal Revenue Code of 1986, as amended ("Section 280G" and the "Code", respectively). To mitigate the potential impact of Section 280G and Section 4999 of the Code on the Company and its applicable executive officers, effective December 17, 2021 the Company's Board of Directors approved the acceleration into December 2021 of the vesting and payment of certain restricted stock units, performance share units, phantom stock units and cash awards that otherwise would have been payable to the executive officers on or prior to the closing of the Merger. These actions were intended to preserve compensation-related corporate income tax deductions for the Company that might otherwise be disallowed through the operation of Section 280G and to mitigate or eliminate the amount of excise tax that may be payable by the executive pursuant to Section 4999 of the Code in connection with Section 280G in certain circumstances.

Stock Options

There were no options granted during the years ended December 31, 2021, 2020 and 2019.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Stock option awards as of December 31, 2021 and 2020, and changes during the year ended December 31, 2021 were as follows:

	Shares Under Option (thousands)	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value (millions)
Outstanding at December 31, 2020	276	23.59	0.9	\$ —
Cancelled/forfeited/expired	(191)	24.53		
Outstanding at December 31, 2021	<u>85</u>	21.47	0.2	—
Vested and exercisable at December 31, 2021	<u>85</u>	\$ 21.47	0.2	\$ —

There was no unrecognized compensation expense related to stock options as of December 31, 2021.

Restricted Stock Units

Nonvested restricted stock unit awards as of December 31, 2021 and 2020, and changes during the year ended December 31, 2021 were as follows:

	Shares (thousands)	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2020	1,440	\$ 3.18
Granted	1,042	4.73
Vested	(2,370)	3.84
Forfeited	(112)	3.67
Nonvested at December 31, 2021	<u>—</u>	\$ —

Included above are 1,486 shares of restricted stock units that were accelerated vested into December 2021. As of December 31, 2021, there was \$3.2 million in unrecognized share-based compensation related to restricted stock units, which is expected to be recognized over a weighted-average period of 1.9 years. The fair value of these awards was determined based on our stock price on the grant date reduced by the present value of expected dividends through the vesting period.

Performance Share Units

Nonvested performance share unit awards as of December 31, 2021 and 2020, and changes during the year ended December 31, 2021, were as follows:

	Shares (thousands)	Weighted Average Grant Date Fair Value
Nonvested at December 31, 2020	2,076	\$ 3.94
Granted	850	4.52
Performance adjustment	649	3.11
Vested	(3,291)	3.99
Forfeited	(107)	3.61
Nonvested at December 31, 2021	<u>177</u>	\$ 2.93

Included above are 1,726 of performance share units that were accelerated vested into December 2021. As of December 31, 2021, there was \$3.2 million of unrecognized compensation expense related to performance share unit awards, which is expected to be recognized over a weighted-average period of 1.8 years.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Phantom Stock Units

Phantom stock unit awards as of December 31, 2021 and 2020, and changes during the year ended December 31, 2021, were as follows:

	Shares (thousands)		Weighted Average Grant Date Fair Value
Nonvested at December 31, 2020	4,603	\$	3.25
Granted	1,719		3.26
Performance adjustment	208		3.54
Vested	(3,465)		3.27
Forfeited	(708)		3.22
Nonvested at December 31, 2021	2,357	\$	3.26

Included above are 1,762 shares of phantom stock units that were accelerated vested into December 2021. As of December 31, 2021, there was \$24.0 million of unrecognized compensation expense related to phantom stock unit awards based on the price of our common stock on that date, which is expected to be recognized over a weighted-average period of 1.5 years.

Note 16. Stockholder Rights Plan

On August 28, 2019, our Board of Directors approved a Stockholder Rights Agreement (the “Rights Agreement”). Under the terms of the Rights Agreement, each share of our common stock is accompanied by one right; each right entitles the stockholder to purchase from the Company one one-thousandth of a newly issued share of Series A Junior Participating Preferred Stock at an exercise price of \$12 per share, subject to adjustment.

Subject to certain exceptions, the rights become exercisable 10 business days following a public announcement that a person (the “Acquiring Person”) has acquired beneficial ownership of 15% (or 20% in certain circumstances) or more of the outstanding shares of common stock of the Company (the “Stock Acquisition Date”). The rights will expire on August 28, 2022, unless redeemed, exchanged or terminated earlier by the Company. The Rights Agreement can be amended by our Board of Directors allowing for an extension of the expiration date. At any time until 10 business days following the Stock Acquisition Date, the Company may redeem the rights for \$0.001 per right.

Subject to the Chatham Rights Plan Amendment described below, in the event a person becomes an Acquiring Person, each holder of a right, other than the Acquiring Person, will have the right to receive common stock (or, in certain circumstances, cash, property or other securities of the Company) having a value equal to two times the exercise price of the right.

In the event that we are acquired in a merger or other business combination as defined in the Rights Agreement, or 50% or more of our assets or earnings power is sold, each right entitles the holders to purchase common stock of the acquiring company having a value equal to two times the exercise price of the right.

At any time after a person becomes an Acquiring Person and prior to the acquisition by any person or group of 50% or more of the outstanding common stock, the Board of Directors may exchange the rights (other than rights owned by such person or group which have become void), in whole or in part, at an exchange ratio of one share of common stock, or one one-thousandth of a share of Series A Preferred Stock (or of a share of a class or series of the Company’s preferred stock having equivalent rights, preferences and privileges), per right, subject to adjustment.

In connection with the definitive merger agreement with Chatham, the Company entered into an amendment to the Rights Agreement (the “Chatham Rights Plan Amendment”) to provide that none of (i) the approval, adoption, execution, delivery or amendment of the Chatham merger agreement, (ii) the public announcement or public disclosure of the Chatham merger agreement or any of the transactions contemplated thereby, or (iii) the performance or consummation of any of the transactions contemplated by the Chatham merger agreement will cause the rights under the Rights Agreement to become exercisable and to provide that the rights under the Rights Agreement will expire no later than immediately prior to the effective time of the merger under the Chatham merger agreement (if such effective time occurs).

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Note 17. Segment and Geographic Area Information

Our segments and their product and service offerings are summarized below:

Business Services

Business Services provides customized solutions at scale to help clients inform, service and transact with their customers. The segment's primary product and service offerings include commercial print, statement printing, labels, packaging, supply chain management, forms and business process outsourcing. This segment also includes all of our operations in Asia, Europe, Canada and Latin America.

Marketing Solutions

Marketing Solutions leverages an integrated portfolio of data analytics, creative services and multichannel execution to deliver comprehensive, end-to-end solutions. The segment's primary product and service offerings include direct marketing, in-store marketing, digital print, kitting, fulfillment, digital and creative solutions and list services.

Corporate

Corporate consists of unallocated general and administrative activities and associated expenses including, in part, executive, legal, finance, communications, certain facility costs and last-in-first-out inventory provisions that are not directly attributable to our operating segments. In addition, certain costs and earnings of employee benefit plans, such as pension and OPEB expense (income) and share-based compensation, are included in Corporate and not allocated to the operating segments. Corporate also manages our cash pooling structures, which enables participating international locations to draw on our international cash resources to meet local liquidity needs.

Information by Segment

We have disclosed income (loss) from operations as the primary measure of segment earnings (loss). This is the measure of profitability used by our chief operating decision-maker and is most consistent with the presentation of profitability reported within the consolidated financial statements.

	Total Sales	Intersegment Sales	Net Sales	Income (Loss) from Operations	Assets of Operations	Depreciation and Amortization	Capital Expenditures
<i>Year ended December 31, 2021</i>							
Business Services	\$ 3,969.3	\$ (59.8)	\$ 3,909.5	\$ 292.4	\$ 2,306.7	\$ 89.2	\$ 49.8
Marketing Solutions	1,072.6	(18.4)	1,054.2	61.5	663.8	31.3	10.1
Total operating segments	5,041.9	(78.2)	4,963.7	353.9	2,970.5	120.5	59.9
Corporate	—	—	—	(190.4)	160.9	10.0	13.4
Total operations	\$ 5,041.9	\$ (78.2)	\$ 4,963.7	\$ 163.5	\$ 3,131.4	\$ 130.5	\$ 73.3
<i>Year ended December 31, 2020</i>							
Business Services	\$ 3,743.6	\$ (58.4)	\$ 3,685.2	\$ 227.9	\$ 2,220.9	\$ 95.1	\$ 48.9
Marketing Solutions	1,103.1	(22.0)	1,081.1	56.3	674.3	47.2	16.3
Total operating segments	4,846.7	(80.4)	4,766.3	284.2	2,895.2	142.3	65.2
Corporate	—	—	—	(176.1)	235.7	3.4	20.4
Total operations	\$ 4,846.7	\$ (80.4)	\$ 4,766.3	\$ 108.1	\$ 3,130.9	\$ 145.7	\$ 85.6
<i>Year ended December 31, 2019</i>							
Business Services	\$ 4,276.9	\$ (84.2)	\$ 4,192.7	\$ 220.0	\$ 2,328.9	\$ 101.6	\$ 79.8
Marketing Solutions	1,314.3	(33.8)	1,280.5	67.0	748.1	53.9	36.5
Total operating segments	5,591.2	(118.0)	5,473.2	287.0	3,077.0	155.5	116.3
Corporate	—	—	—	(101.7)	253.1	7.1	22.5
Total operations	\$ 5,591.2	\$ (118.0)	\$ 5,473.2	\$ 185.3	\$ 3,330.1	\$ 162.6	\$ 138.8

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

Corporate assets consisted of the following items at December 31, 2021, 2020 and 2019:

	2021	2020	2019
Cash and cash equivalents	\$ (70.0)	\$ (10.9)	\$ (47.6)
Deferred income tax assets, net of valuation allowances	3.9	43.9	29.4
Software, net	33.6	34.7	43.8
Deferred compensation plan and Company owned life insurance assets	—	0.2	93.9
Property, plant and equipment, net	24.7	28.6	32.2
Other	168.7	139.2	101.4
Total Corporate assets	\$ 160.9	\$ 235.7	\$ 253.1

Net restructuring, impairment and other charges by segment for the years ended December 31, 2021, 2020 and 2019 are described in Note 5, *Restructuring, Impairment and Other Charges*.

Information by Geographic Area

The following table presents net sales by geographic region for the years ended December 31, 2021, 2020 and 2019. Net sales by geographic region are based upon the sales location.

	2021	2020	2019
U.S.	\$ 3,438.6	\$ 3,451.3	\$ 3,851.9
Asia	1,074.6	868.9	907.8
Europe	229.3	224.5	435.2
Other	221.2	221.6	278.3
Consolidated net sales	\$ 4,963.7	\$ 4,766.3	\$ 5,473.2

The following table presents long-lived assets by geographic region at December 31, 2021, 2020 and 2019. Long-lived assets include net property, plant and equipment, operating lease assets, noncurrent deferred tax assets and other noncurrent assets.

	2021	2020	2019
U.S.	\$ 572.9	\$ 608.1	\$ 733.6
Asia	175.3	160.8	138.9
Europe	68.9	63.3	57.4
Other	52.3	62.7	76.0
Consolidated long-lived assets	\$ 869.4	\$ 894.9	\$ 1,005.9

Note 18. New Accounting Pronouncements

Recently Adopted Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12 “Simplifying the Accounting for Income Taxes (Topic 740)” (“ASU 2019-12”), which simplifies the accounting for income taxes by eliminating certain exceptions to the guidance in Accounting Standards Codification (“ASC”) 740 related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period and the recognition of deferred tax liabilities for outside basis differences. The standard also simplifies aspects of the accounting for franchise taxes and enacted changes in tax laws or rates and clarifies the accounting for transactions that result in a step-up in the tax basis of goodwill. ASU 2019-12 was effective for public entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020, however early adoption was permitted. We adopted ASU 2019-12 on January 1, 2021 and the changes did not have a material impact on our income tax provision.

Accounting Pronouncements Issued and Not Yet Adopted

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform, which provides companies with optional guidance, including expedients and exceptions for applying generally accepted accounting principles to contracts and other transactions affected by reference rate reform, such as LIBOR, was effective upon issuance and will be applied to future contracts with changes to the reference rate. To date, we have had no such modification to any of our contracts. We are currently evaluating the prospective impact of the standard, and we will adopt ASU 2020-04 upon such contract modification. The impact of the standard is not expected to be material to our Consolidated Financial Statements.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the stockholders and the Board of Directors of
R.R. Donnelley & Sons Company

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of R.R. Donnelley & Sons Company and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, 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, 2021, 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 24, 2022 expressed an unqualified opinion on the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Note 8 to the financial statements, effective January 1, 2019, the Company adopted FASB Accounting Standards Update 2016-02, "*Leases (Topic 842)*", using the modified retrospective approach.

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.

Retirement Plans — Valuation of pension and other postretirement employee benefit (OPEB) obligations - Refer to Notes 1 and 9 to the financial statements

Critical Audit Matter Description

As discussed in Note 9 to the consolidated financial statements, the Company sponsors various defined benefit retirement income pension plans and postretirement benefit plans providing healthcare and life insurance benefits. The estimated projected benefit obligation for the Company's pension plans and the estimated accumulated postretirement benefit obligation for the Company's postretirement benefit plans were \$1,077.9 million and \$214.5 million, respectively, as of December 31, 2021.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(In millions, except per share data and unless otherwise indicated)-(Continued)

The Company records its pension and OPEB plan obligations based on calculations which include various actuarial methods and assumptions, including discount rates, mortality, utilization rates of retiree health care accounts, and healthcare cost trend rates, among others. The Company reviews its actuarial assumptions on an annual basis and makes modifications to the assumptions based on current rates and trends when it deems it appropriate to do so. The effect of modifications of actuarial assumptions on the value of the pension and OPEB obligations is recognized within other comprehensive income (loss) and amortized into earnings over future periods.

We identified the valuation of the Company's pension and OPEB plan obligations as a critical audit matter. This was due to the significant auditor judgment and specialized skills and knowledge required to evaluate the actuarial methods used by the Company to determine the obligations, and to evaluate the discount rates and assumed utilization rates of retiree health care accounts used in the measurement process. These assumptions have a significant effect on the recorded obligations.

How the Critical Audit Matter Was Addressed in the Audit

Our audit procedures related to the actuarial models and assumptions used to determine the pension and OPEB obligations included the following, among others:

- We tested the effectiveness of controls over management's review of the pension and OPEB plan obligations, including the review of estimates and assumptions underlying the measurement of the obligations.
- We evaluated the professional qualifications of management's actuarial expert.
- With the assistance of our actuarial specialists, we reviewed the significant actuarial assumptions discussed above and the underlying data used by management and management's actuarial experts to assess the reasonableness of these assumptions under generally accepted actuarial standards. Specifically, we:
 - Read the supporting analyses for the discount rate.
 - Assessed the reasonableness of the discount rate assumption as follows:
 - Performed an independent cash flow analysis to validate the discount rate selected by management and verified that the cash flows reflect the same assumptions and are consistent with the reported benefit obligation, including that projections of expected benefit payments are based on the plan's population and plan provisions.
 - Corroborated the results of the cash flows analysis from management's actuarial expert through consideration of a yield curve analysis based on publicly available yield curves.
 - Verified that the spot rates used by management's actuarial expert and the prices, rates and ratings of the bonds underlying management's actuarial expert's yield curve analysis are as of the measurement date and that the bonds underlying the yield curve analysis are rated "high quality".
 - Evaluated the percentage of future retirees assumed to elect health care coverage under the OPEB plan and the process used by management's actuarial expert to develop per capita claims costs. We assessed the reasonableness of these assumptions as follows:
 - Reviewed the benefits provided to retirees and any historical and future expected changes to the benefits and any limits on the Company's benefit costs.
 - Reviewed management's actuarial expert's description of its methodology and assumptions used to calculate per capita claims trended to future years and benefit participation, and evaluated these assumptions by comparing to prior claims experience, results of relevant experience studies, and industry trends.
 - Verified that current benefit cost limits are administered consistent with management's actuarial expert's valuation, and that any impact of the COVID-19 pandemic on recent experience was considered in setting the claims cost, trend, and plan participation assumptions.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois
February 24, 2022

We have served as the Company's auditor since 2002.

**DESCRIPTION OF THE REGISTRANT'S COMMON SHARES
REGISTERED UNDER SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934**

COMMON STOCK AND PREFERRED STOCK

The authorized capital stock of the Company consists of: (i) 165,000,000 shares of common stock, par value \$0.01 per share, and 2,000,000 shares of preferred stock, par value \$1.00 per share. The following summary description of the capital stock of the Company does not purport to be complete and is qualified in its entirety by reference to the restated certificate of incorporation and by-laws of the Company, each of which is incorporated by reference into this document.

Common Stock

Subject to the prior dividend rights as may be fixed by the board of directors of the Company in creating a new series of preferred stock, holders of the Company common stock are entitled to receive, from funds legally available therefor, dividends when and as declared by the board of directors.

The holders of the Company common stock are entitled to one vote for each share held, without the right to cumulate votes for the election of directors. Under the restated certificate of incorporation, directors are elected annually and the number of directors which constitutes the full board of directors shall be not less than nine nor more than 15. The by-laws of the Company provide that except as otherwise provided pursuant to the certificate of incorporation relating to the rights of the holders of any one or more classes or series of preferred stock, acting separately by class or series, each director shall be elected by the vote of the majority of the votes cast (meaning the number of shares voted "for" a nominee must exceed the number of shares voted "against" such nominee) at any meeting for the election of directors at which a quorum is present, provided that the directors shall be elected by a plurality of the votes cast (instead of by votes cast for or against a nominee) at any meeting at which a quorum is present for which (i) the secretary of the Company receives a notice in compliance with the applicable requirements for shareholder nominations for director set forth in the by-laws that a shareholder proposes to nominate a person for election to the board of directors and (ii) such proposed nomination has not been withdrawn by such shareholder on or prior to the tenth day preceding the date the Company first mails its notice of meeting for such meeting to the shareholders.

If the Company liquidates, dissolves or winds up its affairs, the holders of the Company common stock will be entitled to receive, after its creditors have been paid and the holders of any then outstanding series of preferred stock have received their liquidation preferences, all of the remaining assets of the Company in proportion to their share holdings. Holders of the Company common stock do not have pre-emptive rights to acquire any securities of the Company. The outstanding shares of the Company common stock are fully paid and are nonassessable.

Preferred Stock

The Company's board of directors is authorized to provide for the issuance from time to time of shares of preferred stock in one or more series and to fix the designation, dividend rate, voting powers, redemption price or prices, voluntary and involuntary liquidation prices, sinking fund provisions, if any, conversion provisions, if any, and any other rights and preferences applicable to the shares of such series. If shares of preferred stock are issued that have been designated to receive cumulative dividends or that include sinking fund requirements, conversion or redemption provisions, such issuance could have an adverse effect on the availability of earnings for distribution to the holders of common stock.

Provisions of the Restated Certificate of Incorporation and By-Laws

Certain provisions of the Company's restated certificate of incorporation and by-laws, summarized below, may be considered to have an anti-takeover effect and may delay, deter or prevent a tender offer, proxy contest or other takeover attempt that a shareholder might consider to be in such shareholder's best interest, including an

attempt that might result in payment of a premium over the market price for shares held by the Company's shareholders.

The Company's by-laws provide that shareholders seeking to bring business before an annual meeting of shareholders, or to nominate candidates for election as directors at an annual meeting of shareholders, must provide timely notice of the business or any director nomination in writing. To be timely, a shareholder's notice must be delivered to, or mailed to and received by, the Company's corporate secretary at the principal executive office of the Company not less than 60 days nor more than 90 days prior to the annual meeting, or, if less than 75 days' notice or prior public disclosure of the date of the meeting is given, not later than the close of business on the tenth day following the earlier of the day on which the notice of the date of the annual meeting was mailed, or the day on which public disclosure of the date of the annual meeting was made. The by-laws also specify requirements pertaining to the form and substance of a shareholder's notice. These provisions may preclude some shareholders from making nominations for directors at an annual meeting or from bringing other matters before the Company's shareholders at an annual meeting.

The Company's by-laws provide that special meetings of the Company shareholders may only be called by the Company's chief executive officer, president, chairman of the board or secretary upon a resolution adopted by the affirmative vote of a majority of the Company's board of directors. Business transacted at any special meeting is limited to the general objective stated in the call. Accordingly, the Company's shareholders are precluded from bringing matters before the shareholders at a special meeting.

The restated certificate of incorporation does not allow shareholders to take action by written consent.

Statutory Provisions

Section 203 of the Delaware General Corporation Law prohibits a public Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the date of the transaction in which the person became an interested stockholder unless:

- prior to that date, the board of directors approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon becoming an interested stockholder, the stockholder then owned at least 85% of the voting stock of the corporation, as defined in Section 203; or
- subject to that date, the business combination is approved by both the corporation's board of directors and by holders of at least 66²/₃% of the corporation's outstanding voting stock, excluding shares owned by the interested stockholder.

For these purposes, the term "business combination" includes mergers, asset sales and other similar transactions with an "interested stockholder." An "interested stockholder" is a person who, together with affiliates and associates, owns, or, within the prior three years, did own, 15% or more of the corporation's voting stock.

PREFERRED STOCK PURCHASE RIGHTS

On May 17, 2018, the board of directors of the Company authorized and declared a dividend distribution of one right (a "Right") for each outstanding share of Common Stock of the Company to stockholders of record at the close of business on September 9, 2019 (the "Record Date"). Each Right entitles the registered holder to purchase from the Company a unit consisting of one one-thousandth of a share (a "Unit") of a newly authorized series of Series A Junior Participating Preferred Stock, par value \$1.00 per share (the "Preferred Stock"), at a purchase price of \$12 per Unit, subject to adjustment (the "Purchase Price"). On August 17, 2020, the board of directors of the Company approved, and the Company and Computershare Trust Company, N.A., the Rights Agent under the Rights Agreement, dated as of August 28, 2019, between the Company and Computershare Trust Company, N.A. (the "Rights Agreement"), entered into, an amendment (the "Amendment") to the Rights Agreement. The Amendment changes the final expiration date under the Rights Agreement, to 5:00 P.M., New York City time, on August 28,

2021. As a result of the Amendment, the Rights will expire at 5:00 P.M., New York City time, on August 28, 2021, unless the Rights are earlier redeemed, exchanged or terminated.

Rights Certificates; Exercise Period

Initially, the Rights will be attached to all shares of Common Stock then outstanding, and no separate rights certificates (“Rights Certificates”) will be distributed. Subject to certain exceptions specified in the Rights Agreement, the Rights will separate from the Common Stock and the distribution date (the “Distribution Date”) will occur upon the earlier of (i) 10 business days following a public announcement that a person or group of affiliated or associated persons (an “Acquiring Person”) has acquired beneficial ownership of 10% (or 20% in the case of an “Ordinary Course Institutional Investor,” as defined in the Rights Agreement) or more of the outstanding shares of Common Stock (the “Stock Acquisition Date”), other than as a result of repurchases of stock by the Company or certain inadvertent actions by certain stockholders and (ii) 10 business days (or such later date as the Board shall determine) following the commencement of a tender offer or exchange offer that, if consummated, would result in a person or group becoming an Acquiring Person. For purposes of the Rights Agreement, beneficial ownership is defined to include ownership of derivative securities.

The Rights Agreement provides that any person or group of affiliated or associated persons who, as of the time of the first public announcement of the Rights Agreement, beneficially owns 10% (or 20% in the case of an Ordinary Course Institutional Investor) or more of the outstanding shares of Common Stock (an “Exempt Person”) shall not be deemed an Acquiring Person, but only for so long as such person, together with all affiliates and associates of such person, does not become the beneficial owner of any additional shares of Common Stock while such person is an Exempt Person.

Until a Distribution Date, (i) the Rights will be evidenced by the certificates for the Common Stock (or, in the case of shares reflected on the direct registration system, by the notations in the book-entry accounts) and will only be transferable with such Common Stock, (ii) new Common Stock certificates issued after the Record Date will contain a legend incorporating the Rights Agreement by reference, and (iii) the surrender for transfer of any certificates for Common Stock outstanding will also constitute the transfer of the Rights associated with the Common Stock represented by such certificates. Pursuant to the Rights Agreement, the Company reserves the right to require prior to the occurrence of a Triggering Event that, upon any exercise of Rights, a number of Rights be exercised so that only whole shares of Preferred Stock will be issued.

The Rights are not exercisable until a Distribution Date and will expire at 5:00 P.M., New York City time, on August 28, 2021, unless the Rights are earlier redeemed, exchanged or terminated.

As soon as practicable after a Distribution Date, Rights Certificates will be mailed to holders of record of the Common Stock as of the close of business on a Distribution Date and, thereafter, the separate Rights Certificates alone will represent the Rights. Except as otherwise determined by the Board, only shares of Common Stock issued prior to a Distribution Date will be issued with the Rights.

Flip-in Trigger

In the event that a person or group of affiliated or associated persons becomes an Acquiring Person (unless the event causing such person or group to become an Acquiring Person is a transaction described under *Flip-over Trigger*, below), each holder of a Right will thereafter have the right to receive, upon exercise of the Right, Common Stock (or, in certain circumstances, cash, property or other securities of the Company) having a value equal to two times the exercise price of the Right. Notwithstanding the foregoing, following the occurrence of the event described in this paragraph, all Rights that are, or (under certain circumstances specified in the Rights Agreement) were, beneficially owned by any Acquiring Person will be null and void. However, Rights are not exercisable following the occurrence of the event described above until such time as the Rights are no longer redeemable by the Company as described below.

Flip-over Trigger

In the event that, at any time following the Stock Acquisition Date, (i) the Company engages in a merger or other business combination transaction in which the Company is not the surviving corporation, (ii) the Company engages in a merger or other business combination transaction in which the Company is the surviving corporation and the Common Stock of the Company is changed or exchanged, or (iii) more than 50% of the Company's assets, cash flow or earning power is sold or transferred, each holder of a Right (except Rights which have previously been voided as described above) shall thereafter have the right to receive, upon exercise of the Right, common stock of the acquiring company having a value equal to two times the exercise price of the Right. The events described in this paragraph and in the preceding paragraph are referred to as the "Triggering Events."

Exchange Feature

At any time after a person becomes an Acquiring Person and prior to the acquisition by any person or group of 50% or more of the outstanding Common Stock, the Board may exchange the Rights (other than Rights owned by such person or group which have become void), in whole or in part, at an exchange ratio of one share of Common Stock, or one one-thousandth of a share of Preferred Stock (or of a share of a class or series of the Company's preferred stock having equivalent rights, preferences and privileges), per Right (subject to adjustment).

Equitable Adjustments

The Purchase Price payable, and the number of Units of Preferred Stock or other securities or property issuable, upon exercise of the Rights are subject to adjustment from time to time to prevent dilution (i) in the event of a dividend on the Preferred Stock payable in shares of Preferred Stock, a subdivision or split of outstanding shares of Preferred Stock, a combination or consolidation of Preferred Stock into a smaller number of shares through a reverse stock split or otherwise, or reclassification of the Preferred Stock, (ii) if holders of the Preferred Stock are granted certain rights, options or warrants to subscribe for Preferred Stock or convertible securities at less than the current market price of the Preferred Stock, or (iii) upon the distribution to holders of the Preferred Stock of cash (excluding regular quarterly cash dividends), assets, evidences of indebtedness or of subscription rights or warrants (other than those referred to above).

With certain exceptions, no adjustment in the Purchase Price will be required until cumulative adjustments amount to at least 1% of the Purchase Price. No fractional Units will be issued and, in lieu thereof, an adjustment in cash will be made based on the market price of the Preferred Stock on the last trading date prior to the date of exercise.

Redemption

At any time until ten business days following the Stock Acquisition Date, the Company may redeem the Rights in whole, but not in part, at a price of \$0.001 per Right (payable in cash, Common Stock or other consideration deemed appropriate by the Board). Immediately upon the action of the Board ordering redemption of the Rights, the Rights will terminate and the only right of the holders of Rights will be to receive the \$0.001 redemption price.

Amendment

Any of the provisions of the Rights Agreement may be amended by the Board prior to a Distribution Date. After a Distribution Date, the provisions of the Rights Agreement may be amended by the Board in order to cure any ambiguity, to correct or supplement any provision contained in the Rights Agreement that may be defective or inconsistent with any other provision therein, to make changes that do not adversely affect the interests of holders of Rights, or to shorten or lengthen any time period under the Rights Agreement. Notwithstanding the foregoing, no amendment may be made at such time as the Rights are not redeemable, except to cure any ambiguity or correct or supplement any provision contained in the Rights Agreement that may be defective or inconsistent with any other provision therein.

Miscellaneous

Until a Right is exercised, the holder thereof, as such, will have no separate rights as a stockholder of the Company, including, without limitation, the right to vote or to receive dividends in respect of the Rights. While the distribution of the Rights will not be taxable to stockholders or to the Company, stockholders may, depending upon the circumstances, recognize taxable income in the event that the Rights become exercisable for common stock (or other consideration) of the Company or for common stock of the acquiring company or in the event of the redemption of the Rights as described above.

The Rights Agreement specifying the terms of the Rights is included as Exhibit 4 to this registration statement and is incorporated herein by reference. The summary description of the Rights and Rights Agreement in this registration statement does not purport to be complete and is qualified in its entirety by reference to such exhibit. Unless the context otherwise requires, the capitalized terms used herein have the meanings ascribed to them in the Rights Agreement.

Anti-Takeover Effects

The Rights may have certain anti-takeover effects. The Rights may cause substantial dilution to any person or group that attempts to acquire the Company without the approval of the Board. As a result, the overall effect of the Rights may be to render more difficult or discourage a merger, tender offer or other business combination involving the Company that is not supported by the Board.

7.000% NOTES DUE 2022

Principal, Maturity and Interest

The notes will mature on February 15, 2022. Interest on the notes will accrue at a rate of 7.000% per year and will be payable semiannually in arrears on February 15 and August 15, commencing February 15, 2014. We will pay interest to those persons who were holders of record on the February 1 and August 1, as the case may be, immediately preceding each interest payment date.

Interest on the notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

When we use the term “business day,” we mean any day other than a Saturday, Sunday or other day on which commercial banking institutions in New York City or Chicago, Illinois are authorized or required by law to close.

If an interest payment date, redemption date or maturity date for the notes falls on a date that is not a business day (as defined above), then interest will be paid on the next day that is a business day, and no interest on such payment will accrue for the period from and after such interest payment date, redemption date or maturity date. If a redemption date or the maturity date for any note falls on a date that is not a business day, the related payments of principal, premium, if any, and interest may be made on the next succeeding business day, and no additional interest will accumulate on the amount payable for the period from and after the redemption date or maturity date.

Methods of Receiving Payments on the Notes

If a holder has given us wire transfer instructions, we will pay, or cause to be paid by the paying agent, all principal, premium, if any, and interest on that holder’s notes in accordance with those instructions. All other payments on the notes will be made at the office or agency of the paying agent and registrar unless we elect to make interest payments by check mailed to the holders at their address set forth in the register of holders.

We will pay all principal, interest and premium, if any, on the notes in global form registered in the name of DTC or its nominee in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global notes.

Ranking

The notes will be senior unsecured obligations of the Company. The payment of the principal of, premium, if any, and interest on the notes will:

- rank equally in right of payment with all other indebtedness of the Company that is not, by its terms, expressly subordinated to other indebtedness of the Company;
- rank senior in right of payment to all indebtedness of the Company that is, by its terms, expressly subordinated to the senior indebtedness of the Company; and
- be effectively subordinated to the secured indebtedness of the Company to the extent of the value of the collateral securing such indebtedness and to the indebtedness and other obligations of the Company’s subsidiaries.

Optional Redemption

We may, at our option, redeem the notes in whole at any time or in part from time to time at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed and (2) as determined by the Quotation Agent (as defined below), the sum of the present values of the remaining scheduled payments of principal and interest in respect of the notes to be redeemed (not including any portion of those payments of interest accrued as of the date of redemption) discounted to the date of redemption (the “*Redemption Date*”) on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Treasury Rate (as defined below) plus 50 basis points, plus accrued interest to the Redemption Date.

“*Adjusted Treasury Rate*” means, with respect to any Redemption Date, the rate per year equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for that Redemption Date.

“*Comparable Treasury Issue*” means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of those notes.

“*Comparable Treasury Price*” means, with respect to any Redemption Date, (1) the average of the Reference Treasury Dealer Quotations for that Redemption Date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (2) if the Quotation Agent obtains fewer than four Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

“*Quotation Agent*” means the Reference Treasury Dealer appointed by us.

“*Reference Treasury Dealer*” means (1) each of Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc., J.P. Morgan Securities LLC and a Primary Treasury Dealer selected by U.S. Bancorp Investments, Inc. and their respective successors; *provided, however*, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a “*Primary Treasury Dealer*”), we will substitute another Primary Treasury Dealer, and (2) any one other Primary Treasury Dealer selected by us.

“*Reference Treasury Dealer Quotations*” means, with respect to each Reference Treasury Dealer and any Redemption Date, the average, as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Quotation Agent by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third business day preceding that Redemption Date.

We will mail notice of any redemption at least 30 days, but not more than 60 days, before the Redemption Date to each holder of the notes to be redeemed. Unless we default in payment of the redemption price on the Redemption Date, on and after the Redemption Date, interest will cease to accrue on the notes or portions thereof called for redemption.

Any notice to holders of notes of a redemption hereunder needs to include the appropriate calculation of the redemption price, but does not need to include the redemption price itself. The actual redemption price, calculated as described above, must be set forth in an Officers’ Certificate of ours delivered to the Trustee no later than two business days prior to the Redemption Date.

Mandatory Redemption

We are not required to make mandatory redemption or sinking fund payments with respect to the notes.

Selection and Notice of Redemption

If we redeem less than all the notes at any time and the notes are Global Notes held by DTC, DTC will select the notes to be redeemed in accordance with its Operational Arrangements. If the notes are not Global Notes held by DTC, the Trustee will select notes on a pro rata basis, or on as nearly a pro rata basis as is practicable.

We will redeem notes of \$2,000 or less in whole and not in part. We will cause notices of redemption to be mailed by first-class mail at least 30 but not more than 60 days before the Redemption Date to each holder of notes to be redeemed at its registered address. We may provide in the notice that payment of the redemption price and performance of our obligations with respect to the redemption or purchase may be performed by another person. Any notice may, at our discretion, be subject to the satisfaction of one or more conditions precedent.

If any note is to be redeemed in part only, the notice of redemption that relates to that note will state the portion of the principal amount thereof to be redeemed. We will issue a new note in a principal amount equal to the unredeemed portion of the original note in the name of the holder upon cancellation of the original note.

Notes called for redemption become due on the date fixed for redemption. On and after such date, unless we default in payment of the redemption price on such date, interest ceases to accrue on the notes or portions thereof called for such redemption.

Change of Control

If a Change of Control Triggering Event occurs, unless we have exercised our right to redeem the notes as described above, holders of notes will have the right to require us to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of their notes pursuant to the offer described below (the “*Change of Control Offer*”) on the terms set forth in the notes. In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of notes repurchased plus accrued and unpaid interest, if any, on the notes repurchased, to the date of purchase (the “*Change of Control Payment*”). Within 30 days following any Change of Control Triggering Event, we will be required to mail a notice to holders of notes with a copy to the Trustee describing the transaction or transactions that constitute the Change of Control Triggering Event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “*Change of Control Payment Date*”), pursuant to the procedures required by the notes and described in such notice. We must comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the notes, we will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control provisions of the notes by virtue of such conflicts.

On the Change of Control Payment Date, we will be required, to the extent lawful, to:

- accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;
- deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the Trustee the notes properly accepted together with an Officers’ Certificate stating the aggregate principal amount of notes or portions of notes being purchased.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of “all or substantially all” of the properties or assets of RR Donnelley and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase “substantially all,” there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require RR Donnelley to repurchase its notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of RR Donnelley and its subsidiaries taken as a whole to another Person or group may be uncertain.

For purposes of the foregoing discussion of a repurchase at the option of holders, the following definitions are applicable:

“*Below Investment Grade Rating Event*” means the notes are rated below an Investment Grade Rating by each of the Rating Agencies (as defined below) on the 60th day following the occurrence of a Change of Control (which date shall be extended if the rating of the notes is under publicly announced consideration for possible downgrade by any of the Rating Agencies on such 60th day, such extension to last until the date on which the Rating Agency considering such possible downgrade either (x) rates the notes below an Investment Grade Rating or (y) publicly announces that it is no longer considering the notes for possible downgrade; *provided*, that no such extension shall occur if any of the Rating Agencies rates the notes with an Investment Grade Rating that is not subject to review for possible downgrade on such 60th day).

“*Change of Control*” means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of RR Donnelley and its subsidiaries taken as a whole to any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) other than RR Donnelley or

one of its subsidiaries; (2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the beneficial owner, directly or indirectly, of more than 50% of the then outstanding number of shares of RR Donnelley’s voting stock; or (3) the first day on which a majority of the members of RR Donnelley’s Board of Directors are not Continuing Directors.

“*Change of Control Triggering Event*” means the occurrence of both a Change of Control and a Below Investment Grade Rating Event.

“*Continuing Directors*” means, as of any date of determination, any member of the Board of Directors of RR Donnelley who (1) was a member of such Board of Directors on the date of the issuance of the notes; or (2) was nominated for election or elected to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such nomination or election (either by a specific vote or by approval of RR Donnelley’s proxy statement in which such member was named as a nominee for election as a director, without objection to such nomination).

“*Investment Grade Rating*” means a rating equal to or higher than Baa3 (or the equivalent) by Moody’s and BBB- (or the equivalent) by S&P.

“*Moody’s*” means Moody’s Investors Service, Inc., a subsidiary of Moody’s Corporation, and its successors.

“*Rating Agencies*” means (1) each of Moody’s and S&P; and (2) if any of Moody’s or S&P ceases to rate the notes or fails to make a rating of the notes publicly available for reasons outside of our control, a “nationally recognized statistical rating organization” within the meaning of Section 3(a)(62) under the Exchange Act, selected by us (as certified by a resolution of our Board of Directors) as a replacement agency for Moody’s or S&P, or both of them, as the case may be.

“*S&P*” means Standard & Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

Certain Covenants

Restrictions on Secured Debt

The indenture provides that neither R.R. Donnelley & Sons Company nor any Restricted Subsidiary will create, incur, issue, assume or guarantee any indebtedness for borrowed money secured by a mortgage, security interest, pledge or lien (which we refer to herein, collectively, as a “*mortgage*”) on or upon any Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, whether owned at the date of the indenture or acquired after the date of the indenture, without ensuring that the notes (together with, if we decide, any other indebtedness created, issued, assumed or guaranteed by R.R. Donnelley & Sons Company or any Restricted Subsidiary then existing or thereafter created) will be secured by such mortgage equally and proportionately with (or, at our option, prior to) such indebtedness. This restriction will not apply to indebtedness secured by any of the following:

- mortgages on any property acquired, constructed or improved by, or on any shares of capital stock or indebtedness acquired by, us or any Restricted Subsidiary after the date of the indenture to secure indebtedness incurred for the purpose of financing or refinancing all or any part of the purchase price of such property, shares of capital stock or indebtedness or of the cost of any construction or improvements on such properties, in each case, to the extent that the indebtedness is incurred prior to or within 180 days after the applicable acquisition, completion of construction or beginning of commercial operation of such property, as the case may be;
- mortgages on any property, shares of capital stock or indebtedness existing at the time we or any Restricted Subsidiary acquire any of the same;
- mortgages on property of a corporation existing at the time we or any Restricted Subsidiary merge or consolidate with such corporation or at the time we or any Restricted Subsidiary acquire all or substantially all of the properties of such corporation;

- mortgages on any property of, or shares of capital stock or indebtedness of, a corporation existing at the time such corporation becomes a Restricted Subsidiary;
- mortgages to secure indebtedness of any Restricted Subsidiary to us or another Restricted Subsidiary;
- mortgages in favor of certain governmental bodies to secure partial, progress, advance or other payments pursuant to any contract or statute or to secure indebtedness incurred or guaranteed to finance or refinance all or any part of the purchase price of the property, shares of capital stock or indebtedness subject to such mortgages, or the cost of constructing or improving the property subject to such mortgage; and
- extensions, renewals or replacements of any mortgage existing on the date of the indenture or any mortgage referred to above; however, the principal amount of indebtedness secured thereby may not exceed the principal amount of indebtedness so secured at the time of such extension, renewal or replacement, and such extension, renewal or replacement will be limited to all or a part of the property (plus improvements and construction on such property), shares of capital stock or indebtedness which was subject to the mortgage so extended, renewed or replaced.

Notwithstanding the restriction outlined above, we or any Restricted Subsidiary may, without having to equally and proportionately secure the notes, issue, assume or guarantee indebtedness secured by a mortgage not excepted from the restriction if the total amount of the following does not at the time exceed 15% of Consolidated Net Tangible Assets:

- such indebtedness; plus
- all other indebtedness that we and our Restricted Subsidiaries have incurred or have guaranteed existing at such time and secured by mortgages not so excepted; plus
- the Attributable Debt existing in respect of Sale and Lease-Back Transactions existing at such time.

Attributable Debt with respect to the following types of Sale and Lease-Back Transactions will not be included for the purposes of calculating Attributable Debt in the preceding sentence:

- Sale and Lease-Back Transactions in respect of which an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) is used within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property; and
- Sale and Lease-Back Transactions in which the property involved would have been permitted to be mortgaged under the first bullet point of the preceding paragraph.

Restrictions on Sale and Lease-Back Transactions

The indenture provides that neither we nor any Restricted Subsidiary will enter into any Sale and Lease-Back Transaction with respect to any Principal Property unless:

- we or such Restricted Subsidiary are entitled under the provisions described in the first or sixth bullet point in the first paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on the property to be leased without having to equally and proportionately secure the notes;
- we or such Restricted Subsidiary are entitled under the provisions described in the last paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on such property in an amount at least equal to the Attributable Debt in respect of the Sale and Lease-Back Transaction without having to equally and proportionately secure the notes; or
- we apply an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property.

Consolidation, Merger and Sale of Assets

The indenture provides that we may consolidate or merge with or into any other corporation, or lease, sell or transfer all or substantially all of our property and assets if:

- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets is a corporation organized and existing under the laws of the United States, any state in the United States or the District of Columbia;
- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets, agrees to pay the principal of, and any premium and interest on, the notes and performs and observes all covenants and conditions of the indenture by executing and delivering to the Trustee a supplemental indenture; and
- immediately after giving effect to such transaction and treating indebtedness for borrowed money which becomes our obligation or an obligation of a Restricted Subsidiary as a result of such transaction as having been incurred by us or such Restricted Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing.

If, upon any such consolidation or merger, or upon any such lease, sale or transfer of any of our Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, owned immediately prior to the transaction, we would thereupon become subject to any mortgage, security interest, pledge or lien securing any indebtedness for borrowed money of, or guaranteed by, such other corporation or party (other than any mortgage, security interest, pledge or lien permitted as described under “—Certain Covenants—Restrictions on Secured Debt” above), we, prior to such consolidation, merger, lease, sale or transfer, will, by executing and delivering to the Trustee a supplemental indenture, secure the due and punctual payment of the principal of, and any premium and interest on, the notes (together with, if we decide, any other indebtedness of, or guaranteed by, us or any Restricted Subsidiary then existing or thereafter created) equally and proportionately with (or, at our option, prior to) the indebtedness secured by such mortgage, security interest, pledge or lien.

Reports

We will file with the Trustee, within 15 days after we have filed the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies thereof as the Commission may from time to time by rules and regulations prescribe) which we may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if we are not required to file information, documents or reports under those Sections, then we will file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in those rules and regulations.

Events of Default

With respect to the notes, an “Event of Default” is defined in the indenture as being:

- a failure to pay interest upon the notes that continues for a period of 30 days after payment is due;
- a failure to pay the principal or premium, if any, on the notes when due upon maturity, redemption, acceleration or otherwise;
- a failure to comply with any of our other agreements contained in the indenture applicable to the notes for a period of 90 days after written notice to us of such failure from the Trustee (or to us and the Trustee from the holders of at least 25% of the principal amount of the notes); and
- certain events of bankruptcy, insolvency or reorganization relating to us.

The indenture provides that if there is a continuing Event of Default with respect to the notes, either the Trustee or the holders of at least 25% of the outstanding principal amount of the notes may declare the principal amount of all of the notes to be due and payable immediately. However, at any time after the Trustee or the holders, as the case may be, declare an acceleration with respect to notes, but before the applicable person has obtained a judgment or decree based on such acceleration, the holders of a majority in principal amount of the outstanding

notes may, under certain conditions, cancel such acceleration if we have cured all Events of Default (other than the nonpayment of accelerated principal) with respect to such notes or all such Events of Default have been waived as provided in the indenture. For information as to waiver of defaults, see “—Modification and Waiver.”

The indenture provides that, subject to the duties of the Trustee to act with the required standard of care, if there is a continuing Event of Default, the Trustee need not exercise any of its rights or powers under the indenture at the request or direction of any of the holders of notes, unless such holders have offered to the Trustee reasonable security or indemnity. Subject to such provisions for security or indemnification of the Trustee and certain other conditions, the holders of a majority in principal amount of the outstanding notes of a series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power the Trustee holds with respect to the notes of that series.

No holder of any note will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture unless:

- the Trustee has failed to institute such proceeding for 60 days after the holder has previously given to the Trustee written notice of a continuing Event of Default with respect to notes;
- the holders of at least 25% in principal amount of the outstanding notes have made a written request, and offered satisfactory security or indemnity, to the Trustee to institute such proceeding as Trustee; and
- the Trustee has not received from the holders of a majority in principal amount of the outstanding notes a direction inconsistent with such request.

However, the holder of any note will have an absolute and unconditional right to receive payment of the principal of, and any premium or interest on, such note on or after the date or dates they are to be paid as expressed in such note and to institute suit for the enforcement of any such payment.

We are required to furnish to the Trustee annually a statement as to the absence of certain defaults under the indenture. The indenture provides that the Trustee need not provide holders of notes notice of any default (other than the nonpayment of principal or any premium or interest) if it considers it in the interest of the holders of notes not to provide such notice.

Modification and Waiver

We and the Trustee may modify or amend the indenture with the consent of the holders of a majority of the principal amount of the outstanding notes of each series affected by the modification or amendment. However, no such modification or amendment may, without the consent of the holders of all then outstanding notes of the affected series:

- change the due date of the principal of, or any installment of principal of or interest on, the notes of that series;
- reduce the principal amount of, or any premium or interest rate on, the notes of that series;
- change the place or currency of payment of principal of, or any premium or interest on, the notes of that series;
- impair the right to institute suit for the enforcement of any payment on or with respect to the notes of that series after the due date thereof; or
- reduce the percentage in principal amount of the notes of that series then outstanding, the consent of whose holders is required for modification or amendment of the indenture, for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults.

The holders of a majority of the principal amount of the outstanding notes of any series may waive, insofar as that series is concerned, future compliance by us with certain restrictive covenants of the indenture. The holders of at least a majority in principal amount of the outstanding notes of any series may waive any past default under the indenture with respect to that series, except a failure by us to pay the principal of, or any premium or interest on, any notes of that series or a provision that cannot be modified or amended without the consent of the holders of all outstanding notes of the affected series.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee or stockholder of ours will have any liability for any of our obligations under the notes or the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of notes by accepting a note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes.

Defeasance

Defeasance and Discharge

The indenture provides that we may be discharged from any and all obligations in respect of the notes (except for certain obligations to register the transfer or exchange of notes, to replace stolen, destroyed, lost or mutilated notes, to maintain paying agencies, to compensate and indemnify the Trustee or to furnish the Trustee (if the Trustee is not the registrar) with the names and addresses of holders of notes). We will be so discharged if we irrevocably deposit with the Trustee, in trust, money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, and any premium and interest on, the notes on the applicable due dates for those payments in accordance with the terms of the notes.

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel confirming that the holders of the notes will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the discharge had not occurred. That opinion must state that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in any case, in support of that opinion.

Defeasance of Certain Covenants and Certain Events of Default

The indenture provides that, upon compliance with certain conditions:

- we may omit to comply with the covenants described under “—Certain Covenants—Restrictions on Secured Debt” and “—Certain Covenants—Restrictions on Sale and Lease-Back Transactions” (all other obligations under the notes will remain in full force and effect); and
- any omission to comply with those covenants will not constitute an Event of Default with respect to the notes (“*covenant defeasance*”).

The conditions include:

- depositing with the Trustee money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, any premium and interest on the notes on the due dates for those payments in accordance with the terms of the notes; and
- delivering to the Trustee an opinion of counsel to the effect that the holders of the notes will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Certain Other Events of Default

If we exercise our option to effect a covenant defeasance with respect to the notes as described above and the notes are thereafter declared due and payable because of an Event of Default (other than an Event of Default caused by failing to comply with the covenants that are defeased), the amount of money and securities we have deposited with the Trustee would be sufficient to pay amounts due on the notes on their respective due dates but may not be sufficient to pay amounts due on the notes at the time of acceleration resulting from such Event of Default. However, we would remain liable for such payments.

Governing Law

The indenture and the notes are governed by the laws of the State of New York.

The Trustee

Wells Fargo Bank, National Association is the Trustee under the indenture. Wells Fargo Bank, National Association is also the trustee for our 4.950% Notes due 2014, our 5.500% Notes due 2015, our 8.600% Notes due 2016, our 6.125% Notes due 2017, our 7.250% Notes due 2018, our 8.250% Notes due 2019, our 11.250%

Notes due 2019, our 7.625% Notes due 2020 and our 7.875% Notes due 2021. The Trustee and its affiliates have engaged, currently are engaged, and may in the future engage in financial or other transactions with R.R. Donnelley & Sons Company and its affiliates in the ordinary course of their respective businesses, subject to the Trust Indenture Act of 1939, as amended.

Except during the continuance of an Event of Default, the Trustee will perform only such duties as are specifically set forth in the indenture. If an Event of Default shall have occurred and continues that is known to the Trustee, the Trustee will exercise such of the rights and powers vested in it under the indenture and use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

Certain Definitions

Set forth below is a summary of certain of the defined terms used in the indenture. Reference is made to the indenture for the full definition of all such terms as well as any other capitalized terms used herein for which no definition is provided. Unless the context otherwise requires, an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles.

"*Attributable Debt*" is defined in the indenture to mean, in the context of a Sale and Lease-Back Transaction, what we believe in good faith to be the present value, discounted at the interest rate implicit in the lease involved in such Sale and Lease-Back Transaction, of the lessee's obligation under the lease for rental payments during the remaining term of such lease, as it may be extended. For purposes of this definition, any amounts lessee must pay, whether or not designated as rent or additional rent, on account of maintenance and repairs, insurance, taxes, assessments, water rates or similar charges or any amounts lessee must pay under the lease contingent upon the amount of sales, maintenance and repairs, insurance, taxes, assessments, water rates or similar charges are not included in the determination of lessee's obligations under the lease.

"*Commission*" means the U.S. Securities and Exchange Commission.

"*Consolidated Net Tangible Assets*" is defined in the indenture to mean the total amount of assets minus:

- all applicable reserves;
- all current liabilities (excluding any liabilities which are by their terms extendible or renewable at the option of the obligor to a time more than 12 months after the time as of which the amount thereof is being computed and excluding current maturities of long-term indebtedness); and
- all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangible assets,

all as shown in our audited consolidated balance sheet contained in our then most recent annual report to stockholders, except that assets will include an amount equal to the Attributable Debt in respect of any Sale and Lease-Back Transaction not capitalized on such balance sheet.

"*Default*" means any event which is, or after notice or passage of time or both would be, an Event of Default.

"*Event of Default*" has the meaning set forth under "—Events of Default."

"*Issue Date*" means the date on which the notes are initially issued.

“*Officer*” means the Chief Executive Officer, the President, the Chief Financial Officer or any Vice President, the Treasurer or the Secretary of the specified Person.

“*Officers’ Certificate*” means a certificate signed by the Chairman of the Board, the Chief Executive Officer, the President or a Vice President, and by the Treasurer, an Assistant Treasurer, the Controller, an Assistant Controller, the Secretary or an Assistant Secretary, and delivered to the Trustee.

“*Person*” means any individual, corporation, company (including any limited liability company), association, partnership, joint venture, trust, unincorporated organization, government or any agency or political subdivision thereof or any other entity.

“*Principal Property*” is defined in the indenture to mean any manufacturing plant or manufacturing facility owned by us or any Restricted Subsidiary which is located within the United States and has a gross book value in excess of 1% of Consolidated Net Tangible Assets at the time of determination, except for any such plant or facility or any portion of such plant or facility which our board of directors does not deem material to the total business conducted by us and our Restricted Subsidiaries considered as one enterprise.

“*Restricted Subsidiary*” is defined in the indenture to mean any Subsidiary that has substantially all of its property located in or that conducts substantially all of its business within the United States (other than its territories or possessions and other than Puerto Rico) and that owns a Principal Property; however, any Subsidiary which is principally engaged in financing operations outside the United States or which is principally engaged in leasing or in financing installment receivables will not be considered a Restricted Subsidiary.

“*Sale and Lease-Back Transaction*” is defined in the indenture to mean the leasing by us or any Restricted Subsidiary of any Principal Property, whether owned at the date of the indenture or acquired after the date of the indenture (except for temporary leases for a term, including any renewal term, of up to three years and except for leases between us and any Restricted Subsidiary or between Restricted Subsidiaries), which property has been or is to be sold or transferred by us or such Restricted Subsidiary to any party with the intention of taking back a lease of such property.

“*Subsidiary*” is defined in the indenture to mean any corporation in which we and/or one or more other Subsidiaries, directly or indirectly, own more than 50% of the outstanding voting stock.

Principal, Maturity and Interest

The notes will mature on April 1, 2024. Interest on the notes will accrue at a rate of 6.00% per year and will be payable semiannually in arrears on April 1 and October 1, commencing October 1, 2014. We will pay interest to those persons who were holders of record on the March 15 and September 15, as the case may be, immediately preceding each interest payment date.

Interest on the notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

When we use the term “business day,” we mean any day other than a Saturday, Sunday or other day on which commercial banking institutions in New York City or Chicago, Illinois are authorized or required by law to close.

If an interest payment date, redemption date or maturity date for the notes falls on a date that is not a business day (as defined above), then interest will be paid on the next day that is a business day, and no interest on such payment will accrue for the period from and after such interest payment date, redemption date or maturity date. If a redemption date or the maturity date for any note falls on a date that is not a business day, the related payments of principal, premium, if any, and interest may be made on the next succeeding business day, and no additional interest will accumulate on the amount payable for the period from and after the redemption date or maturity date.

Methods of Receiving Payments on the Notes

If a holder has given us wire transfer instructions, we will pay, or cause to be paid by the paying agent, all principal, premium, if any, and interest on that holder’s notes in accordance with those instructions. All other payments on the notes will be made at the office or agency of the paying agent and registrar unless we elect to make interest payments by check mailed to the holders at their address set forth in the register of holders.

We will pay all principal, interest and premium, if any, on the notes in global form registered in the name of DTC or its nominee in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global notes.

Ranking

The notes will be senior unsecured obligations of the Company. The payment of the principal of, premium, if any, and interest on the notes will:

- rank equally in right of payment with all other indebtedness of the Company that is not, by its terms, expressly subordinated to other indebtedness of the Company;
- rank senior in right of payment to all indebtedness of the Company that is, by its terms, expressly subordinated to the senior indebtedness of the Company; and
- be effectively subordinated to the secured indebtedness of the Company to the extent of the value of the collateral securing such indebtedness and to the indebtedness and other obligations of the Company’s subsidiaries.

Optional Redemption

We may, at our option, redeem the notes in whole at any time or in part from time to time at a redemption price equal to the greater of (1) 100% of the principal amount of the notes to be redeemed and (2) as determined by the Quotation Agent (as defined below), the sum of the present values of the remaining scheduled payments of principal and interest in respect of the notes to be redeemed (not including any portion of those payments of interest accrued as of the date of redemption) discounted to the date of redemption (the “*Redemption Date*”) on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Treasury Rate (as defined below) plus 50 basis points, plus accrued interest to the Redemption Date.

“*Adjusted Treasury Rate*” means, with respect to any Redemption Date, the rate per year equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for that Redemption Date.

“*Comparable Treasury Issue*” means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of those notes.

“*Comparable Treasury Price*” means, with respect to any Redemption Date, (1) the average of the Reference Treasury Dealer Quotations for that Redemption Date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (2) if the Quotation Agent obtains fewer than four Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

“*Quotation Agent*” means the Reference Treasury Dealer appointed by us.

“*Reference Treasury Dealer*” means (1) each of Merrill Lynch, Pierce, Fenner & Smith Incorporated, Citigroup Global Markets Inc., J.P. Morgan Securities LLC, a Primary Treasury Dealer selected by Mitsubishi UFJ Securities (USA), Inc., a Primary Treasury Dealer selected by U.S. Bancorp Investments, Inc. and a Primary Treasury Dealer selected Wells Fargo Securities, LLC and their respective successors; *provided, however*, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a “*Primary Treasury Dealer*”), we will substitute another Primary Treasury Dealer, and (2) any one other Primary Treasury Dealer selected by us.

“*Reference Treasury Dealer Quotations*” means, with respect to each Reference Treasury Dealer and any Redemption Date, the average, as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Quotation Agent by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third business day preceding that Redemption Date.

We will mail notice of any redemption at least 30 days, but not more than 60 days, before the Redemption Date to each holder of the notes to be redeemed. Unless we default in payment of the redemption price on the Redemption Date, on and after the Redemption Date, interest will cease to accrue on the notes or portions thereof called for redemption.

Any notice to holders of notes of a redemption hereunder needs to include the appropriate calculation of the redemption price, but does not need to include the redemption price itself. The actual redemption price, calculated as described above, must be set forth in an Officers’ Certificate of ours delivered to the Trustee no later than two business days prior to the Redemption Date.

Mandatory Redemption

We are not required to make mandatory redemption or sinking fund payments with respect to the notes.

Selection and Notice of Redemption

If we redeem less than all the notes at any time and the notes are Global Notes held by DTC, DTC will select the notes to be redeemed in accordance with its Operational Arrangements. If the notes are not Global Notes held by DTC, the Trustee will select notes on a pro rata basis, or on as nearly a pro rata basis as is practicable.

We will redeem notes of \$2,000 or less in whole and not in part. We will cause notices of redemption to be mailed by first-class mail at least 30 but not more than 60 days before the Redemption Date to each holder of notes to be redeemed at its registered address. We may provide in the notice that payment of the redemption price and performance of our obligations with respect to the redemption or purchase may be performed by another person. Any notice may, at our discretion, be subject to the satisfaction of one or more conditions precedent.

If any note is to be redeemed in part only, the notice of redemption that relates to that note will state the portion of the principal amount thereof to be redeemed. We will issue a new note in a principal amount equal to the unredeemed portion of the original note in the name of the holder upon cancellation of the original note.

Notes called for redemption become due on the date fixed for redemption. On and after such date, unless we default in payment of the redemption price on such date, interest ceases to accrue on the notes or portions thereof called for such redemption.

Change of Control

If a Change of Control Triggering Event occurs, unless we have exercised our right to redeem the notes as described above, holders of notes will have the right to require us to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of their notes pursuant to the offer described below (the “*Change of Control Offer*”) on the terms set forth in the notes. In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of notes repurchased plus accrued and unpaid interest, if any, on the notes repurchased, to the date of purchase (the “*Change of Control Payment*”). Within 30 days following any Change of Control Triggering Event, we will be required to mail a notice to holders of notes with a copy to the Trustee describing the transaction or transactions that constitute the Change of Control Triggering Event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed (the “*Change of Control Payment Date*”), pursuant to the procedures required by the notes and described in such notice. We must comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the notes, we will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control provisions of the notes by virtue of such conflicts.

On the Change of Control Payment Date, we will be required, to the extent lawful, to:

- accept for payment all notes or portions of notes properly tendered pursuant to the Change of Control Offer;
- deposit with the paying agent an amount equal to the Change of Control Payment in respect of all notes or portions of notes properly tendered; and
- deliver or cause to be delivered to the Trustee the notes properly accepted together with an Officers’ Certificate stating the aggregate principal amount of notes or portions of notes being purchased.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of “all or substantially all” of the properties or assets of RR Donnelley and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase “substantially all,” there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require RR Donnelley to repurchase its notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of RR Donnelley and its subsidiaries taken as a whole to another Person or group may be uncertain.

For purposes of the foregoing discussion of a repurchase at the option of holders, the following definitions are applicable:

“*Below Investment Grade Rating Event*” means the notes are rated below an Investment Grade Rating by each of the Rating Agencies (as defined below) on the 60th day following the occurrence of a Change of Control (which date shall be extended if the rating of the notes is under publicly announced consideration for possible downgrade by any of the Rating Agencies on such 60th day, such extension to last until the date on which the Rating Agency considering such possible downgrade either (x) rates the notes below an Investment Grade Rating or (y) publicly announces that it is no longer considering the notes for possible downgrade; *provided*, that no such extension shall occur if any of the Rating Agencies rates the notes with an Investment Grade Rating that is not subject to review for possible downgrade on such 60th day).

“*Change of Control*” means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of RR Donnelley and its subsidiaries taken as a whole to any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) other than RR Donnelley or one of its subsidiaries; (2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the beneficial owner, directly or indirectly, of more than 50% of the then outstanding number of shares of RR Donnelley’s voting stock; or (3) the first day on which a majority of the members of RR Donnelley’s Board of Directors are not Continuing Directors.

“*Change of Control Triggering Event*” means the occurrence of both a Change of Control and a Below Investment Grade Rating Event.

“*Continuing Directors*” means, as of any date of determination, any member of the Board of Directors of RR Donnelley who (1) was a member of such Board of Directors on the date of the issuance of the notes; or (2) was nominated for election or elected to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such nomination or election (either by a specific vote or by approval of RR Donnelley’s proxy statement in which such member was named as a nominee for election as a director, without objection to such nomination).

“*Investment Grade Rating*” means a rating equal to or higher than Baa3 (or the equivalent) by Moody’s and BBB- (or the equivalent) by S&P.

“*Moody’s*” means Moody’s Investors Service, Inc., a subsidiary of Moody’s Corporation, and its successors.

“*Rating Agencies*” means (1) each of Moody’s and S&P; and (2) if any of Moody’s or S&P ceases to rate the notes or fails to make a rating of the notes publicly available for reasons outside of our control, a “nationally recognized statistical rating organization” within the meaning of Section 3(a)(62) under the Exchange Act, selected by us (as certified by a resolution of our Board of Directors) as a replacement agency for Moody’s or S&P, or both of them, as the case may be.

“*S&P*” means Standard & Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

Certain Covenants

Restrictions on Secured Debt

The indenture provides that neither R.R. Donnelley & Sons Company nor any Restricted Subsidiary will create, incur, issue, assume or guarantee any indebtedness for borrowed money secured by a mortgage, security interest, pledge or lien (which we refer to herein, collectively, as a “*mortgage*”) on or upon any Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, whether owned at the date of the indenture or acquired after the date of the indenture, without ensuring that the notes (together with, if we decide, any other indebtedness created, issued, assumed or guaranteed by R.R. Donnelley & Sons Company or any Restricted Subsidiary then existing or thereafter created) will be secured by such mortgage equally and proportionately with (or, at our option, prior to) such indebtedness. This restriction will not apply to indebtedness secured by any of the following:

- mortgages on any property acquired, constructed or improved by, or on any shares of capital stock or indebtedness acquired by, us or any Restricted Subsidiary after the date of the indenture to secure indebtedness incurred for the purpose of financing or refinancing all or any part of the purchase price of such property, shares of capital stock or indebtedness or of the cost of any construction or improvements on such properties, in each case, to the extent that the indebtedness is incurred prior to or within 180 days after the applicable acquisition, completion of construction or beginning of commercial operation of such property, as the case may be;
- mortgages on any property, shares of capital stock or indebtedness existing at the time we or any Restricted Subsidiary acquire any of the same;

- mortgages on property of a corporation existing at the time we or any Restricted Subsidiary merge or consolidate with such corporation or at the time we or any Restricted Subsidiary acquire all or substantially all of the properties of such corporation;
- mortgages on any property of, or shares of capital stock or indebtedness of, a corporation existing at the time such corporation becomes a Restricted Subsidiary;
- mortgages to secure indebtedness of any Restricted Subsidiary to us or another Restricted Subsidiary;
- mortgages in favor of certain governmental bodies to secure partial, progress, advance or other payments pursuant to any contract or statute or to secure indebtedness incurred or guaranteed to finance or refinance all or any part of the purchase price of the property, shares of capital stock or indebtedness subject to such mortgages, or the cost of constructing or improving the property subject to such mortgage; and
- extensions, renewals or replacements of any mortgage existing on the date of the indenture or any mortgage referred to above; however, the principal amount of indebtedness secured thereby may not exceed the principal amount of indebtedness so secured at the time of such extension, renewal or replacement, and such extension, renewal or replacement will be limited to all or a part of the property (plus improvements and construction on such property), shares of capital stock or indebtedness which was subject to the mortgage so extended, renewed or replaced.

Notwithstanding the restriction outlined above, we or any Restricted Subsidiary may, without having to equally and proportionately secure the notes, issue, assume or guarantee indebtedness secured by a mortgage not excepted from the restriction if the total amount of the following does not at the time exceed 15% of Consolidated Net Tangible Assets:

- such indebtedness; plus
- all other indebtedness that we and our Restricted Subsidiaries have incurred or have guaranteed existing at such time and secured by mortgages not so excepted; plus
- the Attributable Debt existing in respect of Sale and Lease-Back Transactions existing at such time.

Attributable Debt with respect to the following types of Sale and Lease-Back Transactions will not be included for the purposes of calculating Attributable Debt in the preceding sentence:

- Sale and Lease-Back Transactions in respect of which an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) is used within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property; and
- Sale and Lease-Back Transactions in which the property involved would have been permitted to be mortgaged under the first bullet point of the preceding paragraph.

Restrictions on Sale and Lease-Back Transactions

The indenture provides that neither we nor any Restricted Subsidiary will enter into any Sale and Lease-Back Transaction with respect to any Principal Property unless:

- we or such Restricted Subsidiary are entitled under the provisions described in the first or sixth bullet point in the first paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on the property to be leased without having to equally and proportionately secure the notes;
- we or such Restricted Subsidiary are entitled under the provisions described in the last paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on such property in an amount at least equal to the Attributable Debt in respect of the Sale and Lease-Back Transaction without having to equally and proportionately secure the notes; or
- we apply an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property.

Consolidation, Merger and Sale of Assets

The indenture provides that we may consolidate or merge with or into any other corporation, or lease, sell or transfer all or substantially all of our property and assets if:

- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets is a corporation organized and existing under the laws of the United States, any state in the United States or the District of Columbia;
- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets, agrees to pay the principal of, and any premium and interest on, the notes and performs and observes all covenants and conditions of the indenture by executing and delivering to the Trustee a supplemental indenture; and
- immediately after giving effect to such transaction and treating indebtedness for borrowed money which becomes our obligation or an obligation of a Restricted Subsidiary as a result of such transaction as having been incurred by us or such Restricted Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing.

If, upon any such consolidation or merger, or upon any such lease, sale or transfer of any of our Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, owned immediately prior to the transaction, we would thereupon become subject to any mortgage, security interest, pledge or lien securing any indebtedness for borrowed money of, or guaranteed by, such other corporation or party (other than any mortgage, security interest, pledge or lien permitted as described under “—Certain Covenants—Restrictions on Secured Debt” above), we, prior to such consolidation, merger, lease, sale or transfer, will, by executing and delivering to the Trustee a supplemental indenture, secure the due and punctual payment of the principal of, and any premium and interest on, the notes (together with, if we decide, any other indebtedness of, or guaranteed by, us or any Restricted Subsidiary then existing or thereafter created) equally and proportionately with (or, at our option, prior to) the indebtedness secured by such mortgage, security interest, pledge or lien.

Reports

We will file with the Trustee, within 15 days after we have filed the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies thereof as the Commission may from time to time by rules and regulations prescribe) which we may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if we are not required to file information, documents or reports under those Sections, then we will file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in those rules and regulations.

Events of Default

With respect to the notes, an “Event of Default” is defined in the indenture as being:

- a failure to pay interest upon the notes that continues for a period of 30 days after payment is due;
- a failure to pay the principal or premium, if any, on the notes when due upon maturity, redemption, acceleration or otherwise;
- a failure to comply with any of our other agreements contained in the indenture applicable to the notes for a period of 90 days after written notice to us of such failure from the Trustee (or to us and the Trustee from the holders of at least 25% of the principal amount of the notes); and
- certain events of bankruptcy, insolvency or reorganization relating to us.

The indenture provides that if there is a continuing Event of Default with respect to the notes, either the Trustee or the holders of at least 25% of the outstanding principal amount of the notes may declare the principal amount of all of the notes to be due and payable immediately. However, at any time after the Trustee or the holders, as the case may be, declare an acceleration with respect to notes, but before the applicable person has obtained a judgment or decree based on such acceleration, the holders of a majority in principal amount of the outstanding

notes may, under certain conditions, cancel such acceleration if we have cured all Events of Default (other than the nonpayment of accelerated principal) with respect to such notes or all such Events of Default have been waived as provided in the indenture. For information as to waiver of defaults, see “—Modification and Waiver.”

The indenture provides that, subject to the duties of the Trustee to act with the required standard of care, if there is a continuing Event of Default, the Trustee need not exercise any of its rights or powers under the indenture at the request or direction of any of the holders of notes, unless such holders have offered to the Trustee reasonable security or indemnity. Subject to such provisions for security or indemnification of the Trustee and certain other conditions, the holders of a majority in principal amount of the outstanding notes of a series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power the Trustee holds with respect to the notes of that series.

No holder of any note will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture unless:

- the Trustee has failed to institute such proceeding for 60 days after the holder has previously given to the Trustee written notice of a continuing Event of Default with respect to notes;
- the holders of at least 25% in principal amount of the outstanding notes have made a written request, and offered satisfactory security or indemnity, to the Trustee to institute such proceeding as Trustee; and
- the Trustee has not received from the holders of a majority in principal amount of the outstanding notes a direction inconsistent with such request.

However, the holder of any note will have an absolute and unconditional right to receive payment of the principal of, and any premium or interest on, such note on or after the date or dates they are to be paid as expressed in such note and to institute suit for the enforcement of any such payment.

We are required to furnish to the Trustee annually a statement as to the absence of certain defaults under the indenture. The indenture provides that the Trustee need not provide holders of notes notice of any default (other than the nonpayment of principal or any premium or interest) if it considers it in the interest of the holders of notes not to provide such notice.

Modification and Waiver

We and the Trustee may modify or amend the indenture with the consent of the holders of a majority of the principal amount of the outstanding notes of each series affected by the modification or amendment. However, no such modification or amendment may, without the consent of the holders of all then outstanding notes of the affected series:

- change the due date of the principal of, or any installment of principal of or interest on, the notes of that series;
- reduce the principal amount of, or any premium or interest rate on, the notes of that series;
- change the place or currency of payment of principal of, or any premium or interest on, the notes of that series;
- impair the right to institute suit for the enforcement of any payment on or with respect to the notes of that series after the due date thereof; or
- reduce the percentage in principal amount of the notes of that series then outstanding, the consent of whose holders is required for modification or amendment of the indenture, for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults.

The holders of a majority of the principal amount of the outstanding notes of any series may waive, insofar as that series is concerned, future compliance by us with certain restrictive covenants of the indenture. The holders of at least a majority in principal amount of the outstanding notes of any series may waive any past default under the indenture with respect to that series, except a failure by us to pay the principal of, or any premium or interest on, any notes of that series or a provision that cannot be modified or amended without the consent of the holders of all outstanding notes of the affected series.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee or stockholder of ours will have any liability for any of our obligations under the notes or the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of notes by accepting a note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the notes.

Defeasance

Defeasance and Discharge

The indenture provides that we may be discharged from any and all obligations in respect of the notes (except for certain obligations to register the transfer or exchange of notes, to replace stolen, destroyed, lost or mutilated notes, to maintain paying agencies, to compensate and indemnify the Trustee or to furnish the Trustee (if the Trustee is not the registrar) with the names and addresses of holders of notes). We will be so discharged if we irrevocably deposit with the Trustee, in trust, money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, and any premium and interest on, the notes on the applicable due dates for those payments in accordance with the terms of the notes.

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel confirming that the holders of the notes will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the discharge had not occurred. That opinion must state that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in any case, in support of that opinion.

Defeasance of Certain Covenants and Certain Events of Default

The indenture provides that, upon compliance with certain conditions:

- we may omit to comply with the covenants described under “—Certain Covenants—Restrictions on Secured Debt” and “—Certain Covenants—Restrictions on Sale and Lease-Back Transactions” (all other obligations under the notes will remain in full force and effect); and
- any omission to comply with those covenants will not constitute an Event of Default with respect to the notes (“covenant defeasance”).

The conditions include:

- depositing with the Trustee money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, any premium and interest on the notes on the due dates for those payments in accordance with the terms of the notes; and
- delivering to the Trustee an opinion of counsel to the effect that the holders of the notes will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Certain Other Events of Default

If we exercise our option to effect a covenant defeasance with respect to the notes as described above and the notes are thereafter declared due and payable because of an Event of Default (other than an Event of Default caused by failing to comply with the covenants that are defeased), the amount of money and securities we have deposited with the Trustee would be sufficient to pay amounts due on the notes on their respective due dates but may not be sufficient to pay amounts due on the notes at the time of acceleration resulting from such Event of Default. However, we would remain liable for such payments.

Governing Law

The indenture and the notes are governed by the laws of the State of New York.

The Trustee

Wells Fargo Bank, National Association is the Trustee under the indenture. Wells Fargo Bank, National Association is also the trustee for our 4.950% Notes due 2014, our 5.500% Notes due 2015, our 8.600% Notes due 2016, our 6.125% Notes due 2017, our 7.250% Notes due 2018, our 8.250% Notes due 2019, our 11.250% Notes due 2019, our 7.625% Notes due 2020, our 7.875% Notes due 2021, our 7.000% Notes due 2022 and our 6.500% Notes due 2023. The Trustee and its affiliates have engaged, currently are engaged, and may in the future engage in financial or other transactions with R.R. Donnelley & Sons Company and its affiliates in the ordinary course of their respective businesses, subject to the Trust Indenture Act of 1939, as amended.

Except during the continuance of an Event of Default, the Trustee will perform only such duties as are specifically set forth in the indenture. If an Event of Default shall have occurred and continues that is known to the Trustee, the Trustee will exercise such of the rights and powers vested in it under the indenture and use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person's own affairs.

Certain Definitions

Set forth below is a summary of certain of the defined terms used in the indenture. Reference is made to the indenture for the full definition of all such terms as well as any other capitalized terms used herein for which no definition is provided. Unless the context otherwise requires, an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles.

"Attributable Debt" is defined in the indenture to mean, in the context of a Sale and Lease-Back Transaction, what we believe in good faith to be the present value, discounted at the interest rate implicit in the lease involved in such Sale and Lease-Back Transaction, of the lessee's obligation under the lease for rental payments during the remaining term of such lease, as it may be extended. For purposes of this definition, any amounts lessee must pay, whether or not designated as rent or additional rent, on account of maintenance and repairs, insurance, taxes, assessments, water rates or similar charges or any amounts lessee must pay under the lease contingent upon the amount of sales, maintenance and repairs, insurance, taxes, assessments, water rates or similar charges are not included in the determination of lessee's obligations under the lease.

"Commission" means the U.S. Securities and Exchange Commission.

"Consolidated Net Tangible Assets" is defined in the indenture to mean the total amount of assets minus:

- all applicable reserves;
- all current liabilities (excluding any liabilities which are by their terms extendible or renewable at the option of the obligor to a time more than 12 months after the time as of which the amount thereof is being computed and excluding current maturities of long-term indebtedness); and
- all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangible assets,

all as shown in our audited consolidated balance sheet contained in our then most recent annual report to stockholders, except that assets will include an amount equal to the Attributable Debt in respect of any Sale and Lease-Back Transaction not capitalized on such balance sheet.

"Default" means any event which is, or after notice or passage of time or both would be, an Event of Default.

"Event of Default" has the meaning set forth under "*—Events of Default.*"

"Issue Date" means the date on which the notes are initially issued.

"Officer" means the Chief Executive Officer, the President, the Chief Financial Officer or any Vice President, the Treasurer or the Secretary of the specified Person.

“*Officers’ Certificate*” means a certificate signed by the Chairman of the Board, the Chief Executive Officer, the President or a Vice President, and by the Treasurer, an Assistant Treasurer, the Controller, an Assistant Controller, the Secretary or an Assistant Secretary, and delivered to the Trustee.

“*Person*” means any individual, corporation, company (including any limited liability company), association, partnership, joint venture, trust, unincorporated organization, government or any agency or political subdivision thereof or any other entity.

“*Principal Property*” is defined in the indenture to mean any manufacturing plant or manufacturing facility owned by us or any Restricted Subsidiary which is located within the United States and has a gross book value in excess of 1% of Consolidated Net Tangible Assets at the time of determination, except for any such plant or facility or any portion of such plant or facility which our board of directors does not deem material to the total business conducted by us and our Restricted Subsidiaries considered as one enterprise.

“*Restricted Subsidiary*” is defined in the indenture to mean any Subsidiary that has substantially all of its property located in or that conducts substantially all of its business within the United States (other than its territories or possessions and other than Puerto Rico) and that owns a Principal Property; however, any Subsidiary which is principally engaged in financing operations outside the United States or which is principally engaged in leasing or in financing installment receivables will not be considered a Restricted Subsidiary.

“*Sale and Lease-Back Transaction*” is defined in the indenture to mean the leasing by us or any Restricted Subsidiary of any Principal Property, whether owned at the date of the indenture or acquired after the date of the indenture (except for temporary leases for a term, including any renewal term, of up to three years and except for leases between us and any Restricted Subsidiary or between Restricted Subsidiaries), which property has been or is to be sold or transferred by us or such Restricted Subsidiary to any party with the intention of taking back a lease of such property.

“*Subsidiary*” is defined in the indenture to mean any corporation in which we and/or one or more other Subsidiaries, directly or indirectly, own more than 50% of the outstanding voting stock.

8.250% SENIOR NOTES DUE 2027

Principal, Maturity and Interest

The Notes will mature on July 1, 2027. Interest on the Notes will accrue at a rate of 8.250% per year and will be payable semiannually in arrears on January 1 and July 1, commencing January 1, 2021. We will pay interest to those persons who were holders of record on the December 15 and June 15, as the case may be, immediately preceding each interest payment date.

Interest on the Notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

When we use the term “business day,” we mean any day other than a Saturday, Sunday or other day on which commercial banking institutions in New York City or Chicago, Illinois are authorized or required by law to close.

If an interest payment date, Redemption Date or maturity date for the Notes falls on a date that is not a business day (as defined above), then interest will be paid on the next day that is a business day, and no interest on such payment will accrue for the period from and after such interest payment date, Redemption Date or maturity date. If a Redemption Date or the maturity date for any Note falls on a date that is not a business day, the related payments of principal, premium, if any, and interest may be made on the next succeeding business day, and no additional interest will accumulate on the amount payable for the period from and after the Redemption Date or maturity date.

Methods of Receiving Payments on the Notes

If a holder has given us wire transfer instructions, we will pay, or cause to be paid by the paying agent, all principal, premium, if any, and interest on that holder’s Notes in accordance with those instructions. All other payments on the Notes will be made at the office or agency of the paying agent and registrar unless we elect to make interest payments by check mailed to the holders at their address set forth in the register of holders.

We will pay all principal, interest and premium, if any, on the Notes in global form registered in the name of DTC or its nominee in immediately available funds to DTC or its nominee, as the case may be, as the registered holder of such global Notes.

Ranking

The Notes will be senior unsecured obligations of the Company. The payment of the principal of, premium, if any, and interest on the Notes will:

- rank equally in right of payment with all other indebtedness of the Company that is not, by its terms, expressly subordinated to other indebtedness of the Company;
- rank senior in right of payment to all indebtedness of the Company that is, by its terms, expressly subordinated to the senior indebtedness of the Company; and
- be effectively subordinated to the secured indebtedness of the Company (including our Term Loan Facility and our ABL Credit Facility) to the extent of the value of the collateral securing such indebtedness and structurally subordinated to the indebtedness and other obligations of the Company’s subsidiaries.

As of March 31, 2020, on an as adjusted basis giving effect to the April 2020 Refinancing Transactions and certain open market debt repurchases subsequent to March 31, 2020, we had approximately \$2,177 million of indebtedness outstanding, of which approximately \$993 million was secured and \$193 million was available for borrowing under the ABL Credit Facility (after giving effect to outstanding letters of credit).

Optional Redemption

Except as set forth below, we will not be entitled to redeem the Notes at our option prior to July 1, 2023.

On and after July 1, 2023, we will be entitled at our option on one or more occasions to redeem all or a portion of the Notes upon not less than 10 nor more than 60 days' notice, at the redemption prices (expressed in percentages of principal amount on the date of redemption date, the "*Redemption Date*"), plus accrued and unpaid interest to, but not including, the Redemption Date, if redeemed during the 12-month period commencing on July 1 of the years set forth below:

<u>Period</u>	<u>Redemption Price</u>
2023	106.188%
2024	104.125%
2025	102.063%
2026 and thereafter	100.000%

Prior to July 1, 2023, we will be entitled at our option to redeem all or a portion of the Notes upon not less than 10 nor more than 60 days' notice, at a redemption price equal to 100% of the principal amount of the Notes to be redeemed plus the Applicable Premium as of, and accrued and unpaid interest to, but not including, the Redemption Date.

"*Adjusted Treasury Rate*" means, with respect to any Redemption Date, (x)(i) the weekly average for each business day during the most recent week that has ended at least three business days prior to the applicable Redemption Date of the yield to maturity appearing in the most recently published statistical release designated "H.15" or any successor publication which is published weekly by the Board of Governors of the Federal Reserve System and which establishes yields on actively traded United States Treasury securities adjusted to constant maturity under the caption "Treasury Constant Maturities," with a yield to maturity most nearly equal to the period from such Redemption Date to July 1, 2023; *provided, however* that if the period from such Redemption Date to July 1, 2023 is less than one year, the weekly average yield on actively traded United States Treasury securities adjusted to a constant maturity of one year will be used or (ii) if such release (or any successor release) is not published during the week preceding the calculation date or does not contain such yields, the rate per year equal to the semi annual equivalent yield to maturity of the applicable Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the applicable Comparable Treasury Price for such Redemption Date, in each case calculated on the third business day immediately preceding the Redemption Date, plus (y) 0.50%.

"*Applicable Premium*" means with respect to any Note at any applicable Redemption Date the excess of (if any) (A) the present value at such Redemption Date of (1) the redemption price of such Note on July 1, 2023 (such redemption prices being described above exclusive of any accrued interest) plus (2) all required remaining scheduled interest payments due on such Note through July 1, 2023 (but excluding accrued and unpaid interest to the applicable Redemption Date), computed using a discount rate equal to the applicable Adjusted Treasury Rate, over (B) the principal amount of such Note on such Redemption Date.

"*Comparable Treasury Issue*" means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the Notes to be redeemed that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of those Notes.

"*Comparable Treasury Price*" means, with respect to any Redemption Date, (1) the average of the Reference Treasury Dealer Quotations for that Redemption Date, after excluding the highest and lowest Reference Treasury Dealer Quotations, or (2) if the Quotation Agent obtains fewer than four Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

"*Quotation Agent*" means the Reference Treasury Dealer appointed by us.

“*Reference Treasury Dealer*” means (1) each of BofA Securities, Inc., Citigroup Global Markets Inc., J.P. Morgan Securities LLC, Goldman, Sachs & Co. LLC and Morgan Stanley & Co. LLC and their respective successors; *provided, however*, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in New York City (a “*Primary Treasury Dealer*”), we will substitute another Primary Treasury Dealer, and (2) any one other Primary Treasury Dealer selected by us.

“*Reference Treasury Dealer Quotations*” means, with respect to each Reference Treasury Dealer and any Redemption Date, the average, as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Quotation Agent by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third business day preceding that Redemption Date.

We will mail notice of any redemption at least 10 days, but not more than 60 days, before the Redemption Date to each holder of the Notes to be redeemed. Unless we default in payment of the redemption price on the Redemption Date, on and after the Redemption Date, interest will cease to accrue on the Notes or portions thereof called for redemption.

Any notice to holders of Notes of a redemption hereunder needs to include the appropriate calculation of the redemption price, but does not need to include the redemption price itself. The actual redemption price, calculated as described above, must be set forth in an Officers’ Certificate of ours delivered to the Trustee no later than two business days prior to the Redemption Date.

Mandatory Redemption

We are not required to make mandatory redemption or sinking fund payments with respect to the Notes.

Selection and Notice of Redemption

If we redeem less than all the Notes at any time and the Notes are Global Notes held by DTC, DTC will select the Notes to be redeemed in accordance with its Operational Arrangements. If the Notes are not Global Notes held by DTC, the Trustee will select Notes on a pro rata basis (or on as nearly a pro rata basis as is practicable), by lot or any other method that the Trustee deems to be fair and appropriate.

We will redeem Notes of \$2,000 or less in whole and not in part. We will cause notices of redemption to be mailed by first-class mail at least 10 but not more than 60 days before the Redemption Date to each holder of Notes to be redeemed at its registered address.

Any redemption or notice of redemption may, at our option and discretion, be subject to one or more conditions precedent, including the consummation of an incurrence or issuance of debt or equity or a change of control or other corporate transaction. In addition, if such redemption is subject to satisfaction of one or more conditions precedent, such notice of redemption shall describe each such condition and, if applicable, shall state that, in our discretion, the Redemption Date may be delayed until such time as any or all such conditions shall be satisfied (or waived by us in our sole discretion) or that such redemption may not occur and such notice may be rescinded in the event that any or all such conditions shall not have been satisfied (or waived by us in our sole discretion) by the redemption date as stated in such notice, or by the Redemption Date as so delayed. We may provide in such notice that payment of the redemption price and performance of our obligations with respect to such redemption may be performed by another person. We will provide at least three business days’ prior written notice to the Trustee prior to the date on which notice is to be given (or such shorter period as may be agreed to by the Trustee) if any such redemption is being rescinded or delayed, and upon receipt, the Trustee shall promptly provide such notice to each holder of the Notes.

If any Note is to be redeemed in part only, the notice of redemption that relates to that Note will state the portion of the principal amount thereof to be redeemed. We will issue a new Note in a principal amount equal to the unredeemed portion of the original Note in the name of the holder upon cancellation of the original Note.

Notes called for redemption become due on the date fixed for redemption. On and after such date, unless we default in payment of the redemption price on such date, interest ceases to accrue on the Notes or portions thereof called for such redemption.

Change of Control

If a Change of Control Triggering Event occurs, unless we have exercised our right to redeem the Notes as described above, holders of Notes will have the right to require us to repurchase all or any part (equal to \$2,000 or an integral multiple of \$1,000 in excess thereof) of their Notes pursuant to the offer described below (the “*Change of Control Offer*”) on the terms set forth in the Notes. In the Change of Control Offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of Notes repurchased plus accrued and unpaid interest, if any, on the Notes repurchased, to the date of purchase (the “*Change of Control Payment*”). Within 30 days following any Change of Control Triggering Event, we will be required to mail a notice to holders of Notes with a copy to the Trustee describing the transaction or transactions that constitute the Change of Control Triggering Event and offering to repurchase the Notes on the date specified in the notice, which date will be no earlier than 10 days and no later than 60 days from the date such notice is mailed (the “*Change of Control Payment Date*”), pursuant to the procedures required by the Notes and described in such notice. We must comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the Notes as a result of a Change of Control Triggering Event. To the extent that the provisions of any securities laws or regulations conflict with the Change of Control provisions of the Notes, we will be required to comply with the applicable securities laws and regulations and will not be deemed to have breached our obligations under the Change of Control provisions of the Notes by virtue of such conflicts.

On the Change of Control Payment Date, we will be required, to the extent lawful, to:

- accept for payment all Notes or portions of Notes properly tendered pursuant to the Change of Control Offer;
- deposit with the paying agent an amount equal to the Change of Control Payment in respect of all Notes or portions of Notes properly tendered; and
- deliver or cause to be delivered to the Trustee the Notes properly accepted together with an Officers’ Certificate stating the aggregate principal amount of Notes or portions of Notes being purchased.

The definition of Change of Control includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of “all or substantially all” of the properties or assets of the Company and its subsidiaries taken as a whole. Although there is a limited body of case law interpreting the phrase “substantially all,” there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of Notes to require the Company to repurchase its Notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of the assets of the Company and its subsidiaries taken as a whole to another Person or group may be uncertain.

Each of our Term Loan Facility and our ABL Credit Facility provides that the occurrence of certain change of control events with respect to us would constitute an event of default thereunder. If any such change of control events occur, we may seek the consent of our lenders or may attempt to refinance or repay the borrowings under such facilities. If we do not obtain such consent or refinance or repay such borrowings, we may be in default under such facilities, which may, in turn, constitute a default under the indenture. In addition, our other outstanding senior notes contain, and future indebtedness that we may incur may contain, prohibitions on the occurrence of certain events that would constitute a Change of Control Triggering Event or require the repurchase of such indebtedness upon a Change of Control Triggering Event. The exercise by the holders of their right to require us to repurchase their Notes could cause a default under such indebtedness, even if a Change of Control Triggering Event itself does not, due to the financial effect of such repurchase on us. We cannot assure you that sufficient funds will be available when necessary to make any required repurchases.

For purposes of the foregoing discussion of a repurchase at the option of holders, the following definitions are applicable:

“*ABL Credit Facility*” means the Company’s senior secured asset-based revolving credit facility entered into on September 29, 2017, as amended, supplemented or otherwise modified from time to time, and any refinancing thereof.

“*Below Investment Grade Rating Event*” means the Notes are rated below an Investment Grade Rating by each of the Rating Agencies (as defined below) on the 60th day following the occurrence of a Change of Control (which date shall be extended if the rating of the Notes is under publicly announced consideration for possible downgrade by any of the Rating Agencies on such 60th day, such extension to last until the date on which the Rating Agency considering such possible downgrade either (x) rates the Notes below an Investment Grade Rating or (y) publicly announces that it is no longer considering the Notes for possible downgrade; *provided*, that no such extension shall occur if any of the Rating Agencies rates the Notes with an Investment Grade Rating that is not subject to review for possible downgrade on such 60th day).

“*Change of Control*” means the occurrence of any of the following: (1) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of the properties or assets of the Company and its subsidiaries taken as a whole to any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) other than the Company or one of its subsidiaries; (2) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any “person” (as that term is used in Section 13(d)(3) of the Exchange Act) becomes the beneficial owner, directly or indirectly, of more than 50% of the then outstanding number of shares of the Company’s voting stock; or (3) the first day on which a majority of the members of the Company’s Board of Directors are not Continuing Directors.

“*Change of Control Triggering Event*” means the occurrence of both a Change of Control and a Below Investment Grade Rating Event.

“*Continuing Directors*” means, as of any date of determination, any member of the Board of Directors of the Company who (1) was a member of such Board of Directors on the Issue Date; or (2) was nominated for election or elected to such Board of Directors with the approval of a majority of the Continuing Directors who were members of such Board of Directors at the time of such nomination or election (either by a specific vote or by approval of the Company’s proxy statement in which such member was named as a nominee for election as a director, without objection to such nomination).

“*Investment Grade Rating*” means a rating equal to or higher than Baa3 (or the equivalent) by Moody’s and BBB- (or the equivalent) by S&P.

“*Moody’s*” means Moody’s Investors Service, Inc., a subsidiary of Moody’s Corporation, and its successors.

“*Rating Agencies*” means (1) each of Moody’s and S&P; and (2) if any of Moody’s or S&P ceases to rate the Notes or fails to make a rating of the Notes publicly available for reasons outside of our control, a “nationally recognized statistical rating organization” within the meaning of Section 3(a)(62) under the Exchange Act, selected by us (as certified by a resolution of our Board of Directors) as a replacement agency for Moody’s or S&P, or both of them, as the case may be.

“*S&P*” means Standard & Poor’s Ratings Services, a division of The McGraw-Hill Companies, Inc., and its successors.

“*Term Loan Facility*” means the Company’s senior secured term loan B facility entered into on October 15, 2018, as amended, supplemented or otherwise modified from time to time, and any refinancing thereof.

Certain Covenants

Restrictions on Secured Debt

The indenture provides that neither the Company nor any Restricted Subsidiary will create, incur, issue, assume or guarantee any indebtedness for borrowed money secured by a mortgage, security interest, pledge or lien (which we refer to herein, collectively, as a “*mortgage*”) on or upon any Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, whether owned at the Issue Date or acquired after the Issue Date, without ensuring that the Notes (together with, if we decide, any other indebtedness created, issued, incurred, assumed or guaranteed by the Company or any Restricted Subsidiary then existing or thereafter created) will be secured by such mortgage equally and proportionately with (or, at our option, prior to) such indebtedness. This restriction will not apply to indebtedness secured by any of the following:

- mortgages on any property acquired, constructed or improved by, or on any shares of capital stock or indebtedness acquired by, us or any Restricted Subsidiary after the Issue Date to secure indebtedness incurred for the purpose of financing or refinancing all or any part of the purchase price of such property, shares of capital stock or indebtedness or of the cost of any construction or improvements on such properties, in each case, to the extent that the indebtedness is incurred prior to or within 180 days after the later of the acquisition, completion of construction or beginning of commercial operation of such property, as the case may be;
- mortgages on any property, shares of capital stock or indebtedness existing at the time we or any Restricted Subsidiary acquire any of the same;
- mortgages on property of a corporation existing at the time we or any Restricted Subsidiary merge or consolidate with such corporation or at the time we or any Restricted Subsidiary acquire all or substantially all of the properties of such corporation;
- mortgages on any property of, or shares of capital stock or indebtedness of, a corporation existing at the time such corporation becomes a Restricted Subsidiary;
- mortgages to secure indebtedness of any Restricted Subsidiary to us or another Restricted Subsidiary;
- mortgages in favor of certain governmental bodies to secure partial, progress, advance or other payments pursuant to any contract or statute or to secure indebtedness incurred or guaranteed to finance or refinance all or any part of the purchase price of the property, shares of capital stock or indebtedness subject to such mortgages, or the cost of constructing or improving the property subject to such mortgage; and
- extensions, renewals or replacements of any mortgage existing on the Issue Date or any mortgage referred to above; however, the principal amount of indebtedness secured thereby may not exceed the principal amount of indebtedness so secured at the time of such extension, renewal or replacement, and such extension, renewal or replacement will be limited to all or a part of the property (plus improvements and construction on such property), shares of capital stock or indebtedness which was subject to the mortgage so extended, renewed or replaced.

Notwithstanding the restriction outlined above, we or any Restricted Subsidiary may, without having to equally and proportionately secure the Notes, issue, incur, assume or guarantee indebtedness secured by a

mortgage not excepted from the restriction if the total amount of the following does not at the time exceed 15% of Consolidated Net Tangible Assets:

- such indebtedness; plus
- all other indebtedness that we and our Restricted Subsidiaries have incurred or have guaranteed existing at such time and secured by mortgages not so excepted; plus
- the Attributable Debt existing in respect of Sale and Lease-Back Transactions existing at such time.

Attributable Debt with respect to the following types of Sale and Lease-Back Transactions will not be included for the purposes of calculating Attributable Debt in the preceding sentence:

- Sale and Lease-Back Transactions in respect of which an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) is used within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property; and

- Sale and Lease-Back Transactions in which the property involved would have been permitted to be mortgaged under the first bullet point of the preceding paragraph.

Restrictions on Future Liens

The indenture provides that if, on or following the Issue Date, any of our indebtedness for borrowed money with an outstanding aggregate principal amount in excess of \$10.0 million is secured on a junior lien basis to the Term Loan Facility or ABL Credit Facility, then within 15 business days of the provision of such security, we will cause the Notes to be secured on an equal and ratable basis with such indebtedness for so long as such indebtedness is so secured. For the avoidance of doubt, to the extent that the Company issues any indebtedness that is secured (or any indebtedness becomes secured) on an equal or senior lien basis to the Term Loan Facility or ABL Credit Facility, the foregoing covenant shall not apply with respect to such collateral (it being understood that the ability to control remedies or take actions pursuant to any intercreditor agreement relating to the Term Loan Facility or ABL Credit Facility shall not impact lien priority).

Restrictions on Sale and Lease-Back Transactions

The indenture provides that neither we nor any Restricted Subsidiary will enter into any Sale and Lease-Back Transaction with respect to any Principal Property unless:

- we or such Restricted Subsidiary are entitled under the provisions described in the first or sixth bullet point in the first paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on the property to be leased without having to equally and proportionately secure the Notes;
- we or such Restricted Subsidiary are entitled under the provisions described in the last paragraph under “—Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on such property in an amount at least equal to the Attributable Debt in respect of the Sale and Lease-Back Transaction without having to equally and proportionately secure the Notes; or
- we apply an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property.

Consolidation, Merger and Sale of Assets

The indenture provides that we may consolidate or merge with or into any other corporation, or lease, sell or transfer all or substantially all of our property and assets if:

- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets is a corporation organized and existing under the laws of the United States, any state in the United States or the District of Columbia;
- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets, agrees to pay the principal of, and any premium and interest on, the Notes and performs and observes all covenants and conditions of the indenture by executing and delivering to the Trustee a supplemental indenture; and
- immediately after giving effect to such transaction and treating indebtedness for borrowed money which becomes our obligation or an obligation of a Restricted Subsidiary as a result of such transaction as having been incurred by us or such Restricted Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing.

If, upon any such consolidation or merger, or upon any such lease, sale or transfer of any of our Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, owned immediately prior to the transaction, we would thereupon become subject to any mortgage, security interest, pledge or lien securing any indebtedness for borrowed money of, or guaranteed by, such other corporation or party (other than any mortgage, security interest, pledge or lien permitted as described under “—Certain Covenants—Restrictions on Secured Debt” above), we, prior to such consolidation, merger, lease, sale or transfer, will, by executing and delivering to the Trustee a supplemental indenture, secure the due and punctual payment of the principal of, and any premium and interest on, the Notes (together with, if we decide, any other indebtedness of, or guaranteed by, us or any Restricted Subsidiary then existing or thereafter created) equally and proportionately with (or, at our option, prior to) the indebtedness secured by such mortgage, security interest, pledge or lien.

Upon any consolidation by us with or merger by us into any other corporation or any lease, sale or transfer of all or substantially all of our property and assets, the successor corporation formed by such consolidation or into which we are merged or to which such lease, sale or transfer is made shall succeed to, and be substituted for, and may exercise every right and power of, us under this indenture with the same effect as if such successor corporation had been named as us herein, and thereafter, except in the case of a lease, the predecessor corporation shall be relieved of all obligations and covenants under this indenture and the Notes.

Reports

We will file with the Trustee, within 15 days after we have filed the same with the Commission, copies of the annual reports and of the information, documents and other reports (or copies thereof as the Commission may from time to time by rules and regulations prescribe) which we may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; *provided* that at any time that we are not subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, (A) none of such reports will be required to (i) comply with Section 302, 404 and 906 of the Sarbanes-Oxley Act of 2002, or related Items 307 and 308 of Regulation S-K promulgated by the Commission, (ii) contain the information required by Items 201, 403, 405, 406, 407, 701 or 703 of Regulation S-K, (iii) contain the separate financial information contemplated by Rules 3-10 or 3-16 of Regulation S-X (or any successor thereto) promulgated by the Commission and (iv) provide financial statements in interactive data format using the eXtensible Business Reporting Language and (B) we shall not be so obligated to file such reports with the Commission, in which event we will make available such information to securities analysts and to prospective purchasers of Notes, in addition to providing such information to the Trustee and the holders, in each case within the time periods for non-accelerated filers that would apply if we were required to file such information with the Commission. In addition, at any time we are not subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, we will furnish to the holders and to securities analysts and prospective purchasers of Notes, upon their request, any information required to be delivered pursuant to Rule 144A(d)(4) under the Securities Act.

We will be deemed to have furnished such information referred to in this covenant to the Trustee and the holders if we have filed or furnished such information in reports filed with the Commission and such reports are publicly available on the Commission’s website. At any time we are not subject to the reporting requirements of Section 13 or 15(d) of the Exchange Act, we may satisfy such obligations by posting such information on our website or on a site maintained by us or a third party (which may be password protected). The Trustee shall have no obligation to determine whether or not such information, documents or reports have been so filed, furnished or posted, as applicable.

Events of Default

With respect to the Notes, an “Event of Default” is defined in the indenture as being:

- a failure to pay interest upon the Notes that continues for a period of 30 days after payment is due;
- a failure to pay the principal or premium, if any, on the Notes when due upon maturity, redemption, acceleration or otherwise;

- a failure to comply with any of our other agreements contained in the indenture applicable to the Notes for a period of 90 days after written notice to us of such failure from the Trustee (or to us and the Trustee from the holders of at least 25% of the principal amount of the Notes); and
- certain events of bankruptcy, insolvency or reorganization relating to us.

The indenture provides that if there is a continuing Event of Default with respect to the Notes, either the Trustee or the holders of at least 25% of the outstanding principal amount of the Notes may declare the principal amount of all of the Notes to be due and payable immediately. However, at any time after the Trustee or the holders, as the case may be, declare an acceleration with respect to Notes, but before the applicable person has obtained a judgment or decree based on such acceleration, the holders of a majority in principal amount of the outstanding Notes may, under certain conditions, cancel such acceleration if we have cured all Events of Default (other than the nonpayment of accelerated principal) with respect to such Notes or all such Events of Default have been waived as provided in the indenture. For information as to waiver of defaults, see “—Modification and Waiver.”

The indenture provides that, subject to the duties of the Trustee to act with the required standard of care, if there is a continuing Event of Default, the Trustee need not exercise any of its rights or powers under the indenture at the request or direction of any of the holders of Notes, unless such holders have offered to the Trustee reasonable security or indemnity. Subject to such provisions for security or indemnification of the Trustee and certain other conditions, the holders of a majority in principal amount of the outstanding Notes of a series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power the Trustee holds with respect to the Notes of that series.

No holder of any Note will have any right to institute any proceeding with respect to the indenture or for any remedy under the indenture unless:

- the Trustee has failed to institute such proceeding for 60 days after the holder has previously given to the Trustee written notice of a continuing Event of Default with respect to Notes;
- the holders of at least 25% in principal amount of the outstanding Notes have made a written request, and offered satisfactory security or indemnity, to the Trustee to institute such proceeding as Trustee; and
- the Trustee has not received from the holders of a majority in principal amount of the outstanding Notes a direction inconsistent with such request.

However, the holder of any Note will have an absolute and unconditional right to receive payment of the principal of, and any premium or interest on, such Note on or after the date or dates they are to be paid as expressed in such Note and to institute suit for the enforcement of any such payment.

We are required to furnish to the Trustee annually a statement as to the absence of certain defaults under the indenture. The indenture provides that the Trustee need not provide holders of Notes notice of any default (other than the nonpayment of principal or any premium or interest) if it considers it in the interest of the holders of Notes not to provide such notice.

Modification and Waiver

We and the Trustee may modify or amend the indenture with the consent of the holders of a majority of the principal amount of the outstanding Notes of each series affected by the modification or amendment. However, no such modification or amendment may, without the consent of the holders of all then outstanding Notes of the affected series:

- change the due date of the principal of, or any installment of principal of or interest on, the Notes of that series;
- reduce the principal amount of, or interest rate on, the Notes of that series;
- change the place or currency of payment of principal of, or any premium or interest on, the Notes of that series;

- impair the right to institute suit for the enforcement of any payment on or with respect to the Notes of that series after the due date thereof; or
- reduce the percentage in principal amount of the Notes of that series then outstanding, the consent of whose holders is required for modification or amendment of the indenture, for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults.

The holders of a majority of the principal amount of the outstanding Notes of any series may waive, insofar as that series is concerned, future compliance by us with certain restrictive covenants of the indenture. The holders of at least a majority in principal amount of the outstanding Notes of any series may waive any past default under the indenture with respect to that series, except a failure by us to pay the principal of, or any premium or interest on, any Notes of that series or a provision that cannot be modified or amended without the consent of the holders of all outstanding Notes of the affected series.

No Personal Liability of Directors, Officers, Employees and Stockholders

No director, officer, employee or stockholder of ours will have any liability for any of our obligations under the Notes or the indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder of Notes by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes.

Defeasance

Defeasance and Discharge

The indenture provides that we may be discharged from any and all obligations in respect of the Notes (except for certain obligations to register the transfer or exchange of Notes, to replace stolen, destroyed, lost or mutilated Notes, to maintain paying agencies, to compensate and indemnify the Trustee or to furnish the Trustee

(if the Trustee is not the registrar) with the names and addresses of holders of Notes). We will be so discharged if we irrevocably deposit with the Trustee, in trust, money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, and any premium and interest on, the Notes on the applicable due dates for those payments in accordance with the terms of the Notes; *provided* that upon any redemption that requires the payment of any Applicable Premium, the amount deposited shall be sufficient to the extent that an amount is deposited with the Trustee equal to the premium calculated as of the date of the notice of redemption, with any Applicable Premium Deficit only required to be deposited with the Trustee on or prior to the Redemption Date (it being understood that any discharge shall be subject to the condition subsequent that such deficit is in fact paid). Any Applicable Premium Deficit shall be set forth in an Officers' Certificate delivered to the Trustee simultaneously with the deposit of such Applicable Premium Deficit that confirms that such Applicable Premium Deficit shall be applied toward such redemption.

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel confirming that the beneficial owners of the Notes will not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the discharge had not occurred. That opinion must state that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the indenture, there has been a change in the applicable United States federal income tax law, in any case, in support of that opinion. The Trustee shall, upon receipt of indemnification satisfactory to it, acknowledge satisfaction and discharge of the indenture on demand by us accompanied by an Officers' Certificate and at the cost and expense of us.

Defeasance of Certain Covenants and Certain Events of Default

The indenture provides that, upon compliance with certain conditions:

- we may omit to comply with the covenants described under “—Certain Covenants—Restrictions on Secured Debt” and “—Certain Covenants—Restrictions on Sale and Lease-Back Transactions” (all other obligations under the Notes will remain in full force and effect); and
- any omission to comply with those covenants will not constitute an Event of Default with respect to the Notes (“covenant defeasance”).

The conditions include:

- depositing with the Trustee money and/or securities of the United States government in an amount sufficient, in the opinion of a nationally recognized firm of independent public accountants, to pay each installment of principal of, any premium and interest on the Notes on the due dates for those payments in accordance with the terms of the Notes; and
- delivering to the Trustee an opinion of counsel to the effect that the beneficial owners of the Notes will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred.

Covenant Defeasance and Certain Other Events of Default

If we exercise our option to effect a covenant defeasance with respect to the Notes as described above and the Notes are thereafter declared due and payable because of an Event of Default (other than an Event of Default caused by failing to comply with the covenants that are defeased), the amount of money and securities we have deposited with the Trustee would be sufficient to pay amounts due on the Notes on their respective due dates but may not be sufficient to pay amounts due on the Notes at the time of acceleration resulting from such Event of Default. However, we would remain liable for such payments.

Governing Law

The indenture and the Notes are governed by the laws of the State of New York.

The Trustee

U.S. Bank National Association is the Trustee under the indenture. U.S. Bank National Association is also the trustee for our 8.50% Notes due 2029. The Trustee and its affiliates have engaged, currently are engaged, and may in the future engage in financial or other transactions with the Company and its affiliates in the ordinary course of their respective businesses, subject to the Trust Indenture Act of 1939, as amended.

Except during the continuance of an Event of Default, the Trustee will perform only such duties as are specifically set forth in the indenture. If an Event of Default shall have occurred and continues that is known to the Trustee, the Trustee will exercise such of the rights and powers vested in it under the indenture and use the same degree of care and skill in its exercise as a prudent person would exercise under the circumstances in the conduct of such person’s own affairs.

Certain Definitions

Set forth below is a summary of certain of the defined terms used in the indenture. Reference is made to the indenture for the full definition of all such terms as well as any other capitalized terms used herein for which no definition is provided. Unless the context otherwise requires, an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles.

“*Applicable Premium Deficit*” means the difference (if positive) between the calculation of the Applicable Premium on any date prior to the applicable Redemption Date and the calculation of the Applicable Premium on the applicable Redemption Date.

“*Attributable Debt*” is defined in the indenture to mean, in the context of a Sale and Lease-Back Transaction, what we believe in good faith to be the present value, discounted at the interest rate implicit in the lease involved in such Sale and Lease-Back Transaction, of the lessee’s obligation under the lease for rental payments during the remaining term of such lease, as it may be extended. For purposes of this definition, any amounts lessee must pay, whether or not designated as rent or additional rent, on account of maintenance and repairs, insurance, taxes, assessments, water rates or similar charges or any amounts lessee must pay under the lease contingent upon the amount of sales, maintenance and repairs, insurance, taxes, assessments, water rates or similar charges are not included in the determination of lessee’s obligations under the lease.

“*Commission*” means the U.S. Securities and Exchange Commission.

“*Consolidated Net Tangible Assets*” is defined in the indenture to mean the total amount of assets minus:

- all applicable reserves;
- all current liabilities (excluding any liabilities which are by their terms extendible or renewable at the option of the obligor to a time more than 12 months after the time as of which the amount thereof is being computed and excluding current maturities of long-term indebtedness); and
- all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangible assets,

all as shown in our audited consolidated balance sheet contained in our then most recent annual report to stockholders, except that assets will include an amount equal to the Attributable Debt in respect of any Sale and Lease-Back Transaction not capitalized on such balance sheet.

“*Default*” means any event which is, or after notice or passage of time or both would be, an Event of Default.

“*Event of Default*” has the meaning set forth under “—Events of Default.”

“*Issue Date*” means the date on which the Notes are initially issued.

“*Officer*” means the Chief Executive Officer, the President, the Chief Financial Officer or any Vice President, the Treasurer or the Secretary of the specified Person.

“*Officers’ Certificate*” means a certificate signed by the Chairman of the Board, the Chief Executive Officer, the President or a Vice President, and by the Treasurer, an Assistant Treasurer, the Controller, an Assistant Controller, the Secretary or an Assistant Secretary, and delivered to the Trustee.

“*Person*” means any individual, corporation, company (including any limited liability company), association, partnership, joint venture, trust, unincorporated organization, government or any agency or political subdivision thereof or any other entity.

“*Principal Property*” is defined in the indenture to mean any manufacturing plant or manufacturing facility owned by us or any Restricted Subsidiary which is located within the United States and has a gross book value in excess of 1% of Consolidated Net Tangible Assets at the time of determination, except for any such plant or facility or any portion of such plant or facility which our board of directors does not deem material to the total business conducted by us and our Restricted Subsidiaries considered as one enterprise.

“*Restricted Subsidiary*” is defined in the indenture to mean any Subsidiary that has substantially all of its property located in or that conducts substantially all of its business within the United States (other than its territories or possessions and other than Puerto Rico) and that owns a Principal Property; however, any Subsidiary which is principally engaged in financing operations outside the United States or which is principally engaged in leasing or in financing installment receivables will not be considered a Restricted Subsidiary.

“*Sale and Lease-Back Transaction*” is defined in the indenture to mean the leasing by us or any Restricted Subsidiary of any Principal Property, whether owned at the Issue Date or acquired after the Issue Date (except for temporary leases for a term, including any renewal term, of up to three years and except for leases between us and any Restricted Subsidiary or between Restricted Subsidiaries), which property has been or is to be sold or transferred by us or such Restricted Subsidiary to any party with the intention of taking back a lease of such property.

“*Subsidiary*” is defined in the indenture to mean any corporation in which we and/or one or more other Subsidiaries, directly or indirectly, own more than 50% of the outstanding voting stock.

6.625% DEBENTURES DUE 2029

The following description of the terms of the Debentures supplements the description of the general terms and provisions of the Debt Securities set forth below.

General

We will issue the Debentures under an indenture, dated as of November 1, 1990, between us and Citibank, N.A., as trustee.

The Debentures will be unsecured obligations, ranking equally with each other and with all of our other unsecured and unsubordinated indebtedness, and will mature on April 15, 2029. The Debentures will bear interest at the rate of 6 5/8 % per year. Interest on the Debentures will accrue from April 16, 1999 or from the most recent date to which interest has been paid or provided for. We will pay interest on the Debentures semi annually on April 15 and October 15 of each year, commencing on October 15, 1999 to the persons in whose names the Debentures are registered at the close of business on April 1 or October 1, as the case may be, immediately preceding an interest payment date. We will compute interest on the Debentures on the basis of a 360-day year of twelve 30-day months. The Debentures are not entitled to the benefit of any sinking fund.

If an interest payment date or redemption date or the maturity date falls on a day which is not a business day, the related payment of interest and principal and premium, if any, will be made on the next business day without further accrual of interest

We will issue \$200,000,000 principal amount of Debentures in denominations of \$1,000 and multiples of \$1,000.

Redemption at Our Option

We may, at our option, redeem the Debentures in whole or in part at any time at a redemption price equal to the greater of (i) 100% of the principal amount of the Debentures to be redeemed and (ii) as determined by the Quotation Agent, the sum of the present values of the remaining scheduled payments of principal and interest in respect of the Debentures to be redeemed (not including any portion of such payments of interest accrued as of the date of redemption) discounted to the date of redemption on a semi-annual basis (assuming a 360-day year consisting of twelve 30-day months) at the Adjusted Treasury Rate plus 25 basis points, plus, in each case, accrued interest to the date of redemption.

“Adjusted Treasury Rate” means, with respect to any redemption date, the rate per year equal to the semi annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for that redemption date.

“Comparable Treasury Issue” means the United States Treasury security selected by the Quotation Agent as having a maturity comparable to the remaining term of the Debentures that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the Debentures.

“Comparable Treasury Price” means, with respect to any redemption date (i) the average of the Reference Treasury Dealer Quotations for that redemption date, after excluding the highest and lowest of the Reference Treasury Dealer Quotations, or (ii) if the Trustee obtains fewer than three Reference Treasury Dealer Quotations, the average of all Reference Treasury Dealer Quotations so received.

“Quotation Agent” means the Reference Treasury Dealer appointed by us.

“Reference Treasury Dealer” means (i) each of J.P. Morgan Securities Inc., Goldman, Sachs & Co. and Morgan Stanley & Co. Incorporated and their respective successors, unless any of them ceases to be a

primary U.S. Government securities dealer in New York City (a "Primary Treasury Dealer"), in which case we shall substitute another Primary Treasury Dealer; and (ii) any other Primary Treasury Dealer selected by us.

"Reference Treasury Dealer Quotations" means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by us, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Trustee by that Reference Treasury Dealer at 5:00 p.m., New York City time, on the third business day preceding that redemption date.

Notice of any redemption will be mailed at least 30 days but not more than 60 days before the redemption date to each holder of the Debentures to be redeemed. Unless we default in payment of the redemption price, on and after the redemption date, interest will cease to accrue on the Debentures or portions of the Debentures called for redemption.

Book-Entry System

The Debentures will be issued in book-entry form. This means that they will be issued in the form of one or more fully registered Global Securities that will be deposited with The Depository Trust Company, New York, New York ("DTC") or its nominee and that we will not issue certificates to a beneficial owner of Debentures. Each Global Security will be issued to DTC who will keep a computerized record of its participants (for example, your broker) whose clients have purchased Debentures. The participant will then keep a record of its clients who purchased the Debentures. A more complete description of the handling of book-entry securities is contained under the caption "Book-Entry Debt Securities."

Neither we, the Trustee, any paying agent nor the registrar for the Debentures will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests in the Debentures represented by the Global Securities or for maintaining, supervising or reviewing any records relating to those beneficial interests.

Certain Covenants

Restrictions On Secured Debt. The Indenture provides that neither we nor any Restricted Subsidiary will create, incur, issue, assume or guarantee any indebtedness for borrowed money secured by a mortgage, security interest, pledge or lien ("mortgage") of or upon any Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, whether owned at the date of the Indenture or acquired after the date of the Indenture, without ensuring that the Debt Securities (together with, if we decide, any other indebtedness created, issued, assumed or guaranteed by us or any Restricted Subsidiary and then existing or thereafter created) will be secured by such mortgage equally and proportionately with (or, at our option, prior to) such indebtedness. This restriction will not apply to indebtedness secured by any of the following:

- mortgages on any property acquired, constructed or improved by, or on any shares of capital stock or indebtedness acquired by, us or any Restricted Subsidiary after the date of the Indenture to secure indebtedness incurred for the purpose of financing or refinancing all or any part of the purchase price of such property, shares of capital stock or indebtedness or of the cost of any construction or improvements on such properties, in each case, to the extent that the indebtedness is incurred prior to or within 180 days after the applicable acquisition, completion of construction or beginning of commercial operation of such property, as the case may be;
- mortgages on any property, shares of capital stock or indebtedness existing at the time we or any Restricted Subsidiary acquire any of the same;
- mortgages on property of a corporation existing at the time we or any Restricted Subsidiary merge or consolidate with such corporation or at the time we or any Restricted Subsidiary acquire all or substantially all of the properties of such corporation;

- mortgages on any property of, or shares of capital stock or indebtedness of, a corporation existing at the time such corporation becomes a Restricted Subsidiary;
- mortgages to secure indebtedness of any Restricted Subsidiary to us or another Restricted Subsidiary;
- mortgages in favor of certain governmental bodies to secure partial, progress, advance or other payments pursuant to any contract or statute or to secure indebtedness incurred or guaranteed to finance or refinance all or any part of the purchase price of the property, shares of capital stock or indebtedness subject to such mortgages, or the cost of constructing or improving the property subject to such mortgage; and
- extensions, renewals or replacements of any mortgage existing on the date of the Indenture or any mortgage referred to above; however, the principal amount of indebtedness secured thereby may not exceed the principal amount of indebtedness so secured at the time of such extension, renewal or replacement, and such extension, renewal or replacement shall be limited to all or a part of the property (plus improvements and construction on such property), shares of capital stock or indebtedness which was subject to the mortgage so extended, renewed or replaced, (*Section 1006*)

Notwithstanding the restriction outlined above, we or any Restricted Subsidiary may, without having to equally and proportionately secure the Debt Securities, issue, assume or guarantee indebtedness secured by a mortgage not excepted from the restriction if the total amount of (a) such indebtedness plus (b) all other indebtedness that we and our Restricted Subsidiaries have incurred or have guaranteed existing at such time and secured by mortgages not so excepted plus (c) the Attributable Debt existing in respect of Sale and Lease Back Transactions existing at such time, does not at the time exceed 10% of Consolidated Net Tangible Assets. Attributable Debt with respect to the following types of Sale and Lease-Back Transactions will not be included for the purposes of calculating Attributable Debt in the preceding sentence:

- Sale and Lease-Back Transactions in respect of which an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) is used within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long term indebtedness, retire long-term indebtedness or acquire, construct or improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property; and
- Sale and Lease-Back Transactions in which the property involved would have been permitted to be mortgaged under the first bullet point of the preceding paragraph, (*Sections 1006 and 1007*)

Restrictions on Sale and Lease-Back Transactions. The Indenture provides that neither we nor any Restricted Subsidiary will enter into any Sale and Lease-Back Transaction with respect to any Principal Property unless:

- we or such Restricted Subsidiary are entitled under the provisions described in bullet point I or 6 in the first paragraph under “-Restrictions On Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on the property to be leased without having to equally and proportionately secure the Debt Securities;
- we or such Restricted Subsidiary are entitled under the provisions described in the last paragraph under “-Restrictions on Secured Debt” to create, issue, assume or guarantee indebtedness secured by a mortgage on such property in an amount at least equal to the Attributable Debt in respect of the Sale and Lease-Back Transaction without having to equally and proportionately secure the Debt Securities; or
- we apply an amount (equaling at least the greater of the net proceeds of the sale of property or the fair market value of the property) within 180 days after the effective date of the arrangement to make non-mandatory prepayments on long-term indebtedness, retire long-term indebtedness or acquire, construct or

improve a manufacturing plant or facility which is, or upon completion will be, a Principal Property.

Certain Definitions

“Attributable Debt” is defined in the Indenture to mean, in the context of a Sale and Lease-Back Transaction, what we believe in good faith to be the present value, discounted at the interest rate implicit in the lease involved in such Sale and Lease-Back Transaction, of the lessee's obligation under the lease for rental payments during the remaining term of such lease, as it may be extended. For purposes of this definition, any amounts lessee must pay, whether or not designated as rent or additional rent, on account of maintenance and repairs, insurance, taxes, assessments, water rates or similar charges or any amounts lessee must pay under the lease contingent upon the amount of sales, maintenance and repairs, insurance, taxes, assessments, water rates or similar charges are not included in the determination of lessee's obligations under the lease. *(Section 101)*

“Consolidated Net Tangible Assets” is defined in the Indenture to mean the total amount of assets minus:

- all applicable reserves;
- all current liabilities (excluding any liabilities which are by their terms extendible or renewable at the option of the obligor to a time more than 12 months after the time as of which the amount thereof is being computed and excluding current maturities of long-term indebtedness); and
- all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangible assets,

all as shown in our audited consolidated balance sheet contained in our then most recent annual report to stockholders, except that assets shall include an amount equal to the Attributable Debt in respect of any Sale and Lease-Back Transaction not capitalized on such balance sheet *(Section 101)*

“Principal Property” is defined in the Indenture to mean any manufacturing plant or manufacturing facility owned by us or any Restricted Subsidiary which is located within the United States and has a gross book value in excess of 1% of Consolidated Net Tangible Assets at the time of determination, except for any such plant or facility or any portion of such plant or facility which our board of directors does not deem material to the total business conducted by us and our Restricted Subsidiaries considered as one enterprise. *(Section 101)*

“Restricted Subsidiary” is defined in the Indenture to mean any Subsidiary that has substantially all of its property located in or that conducts substantially all of its business within the United States (other than its territories or possessions and other than Puerto Rico) and that owns a Principal Property; however, any Subsidiary which is principally engaged in financing operations outside the United States or which is principally engaged in leasing or in financing installment receivables will not be considered a Restricted Subsidiary. *(Section 101)*

“Sale and Lease-Back Transaction” is defined in the Indenture to mean the leasing by us or any Restricted Subsidiary of any Principal Property, whether owned at the date of the Indenture or acquired after the date of the Indenture (except for temporary leases for a term, including any renewal term, of up to three years and except for leases between us and any Restricted Subsidiary or between Restricted Subsidiaries), which property has been or is to be sold or transferred by us or such Restricted Subsidiary to any party with the intention of taking back a lease of such property. *(Sections 101 and 1007)*

“Subsidiary” is defined in the Indenture to mean any corporation in which we and/or one or more other Subsidiaries own more than 50% of the outstanding voting stock. *(Section 101)*

Events of Default

With respect to the Debt Securities of any series, an “Event of Default” is defined in the Indenture as being:

- a failure to pay interest upon the Debt Securities of that series that continues for a period of 30 days after payment is due:

- a failure to pay the principal or premium, if any, on the Debt Securities of that series when due;
- a failure to deposit any sinking fund payment in respect of the Debt Securities of that series when due;
- a failure to comply with any of our other agreements contained in the Indenture applicable to the Debt Securities of that series for a period of 90 days after written notice to us of such failure from the Trustee (or to us and the Trustee from the holders of at least 25% of the principal amount of the Debt Securities of that series);
- certain events of bankruptcy, insolvency or reorganization relating to us; and
- any other event of default provided with respect to the Debt Securities of that series. (*Section 501*)

The Indenture provides that if there is a continuing Event of Default with respect to any outstanding series of Debt Securities, either the Trustee or the holders of at least 25% of the outstanding principal amount of the Debt Securities of that series may declare the principal amount (or, if the Debt Securities of that series provide for an amount less than the principal amount of such Debt Securities to be due and payable upon a declaration of maturity thereof upon an Event of Default, such portion of the principal amount as may be specified in the terms of that series) of all of the Debt Securities of that series to be due and payable immediately. However, at any time after the Trustee or the holders, as the case may be, declare an acceleration with respect to Debt Securities of any series, but before the applicable person has obtained a judgment or decree based on such acceleration, the holders of a majority in principal amount of the outstanding Debt Securities of that series may, under certain conditions, cancel such acceleration if we have cured all Events of Default (other than the nonpayment of accelerated principal) with respect to Debt Securities of that series or all such Events of Default have been waived as provided in the Indenture, (*Section 502*) For information as to waiver of defaults, see “Modification and Waiver” The applicable prospectus supplement relating to any series of Debt Securities which provides for an amount less than the principal amount of such Debt Securities to be due and payable upon a declaration of maturity thereof upon an Event of Default will contain provisions relating to the terms regarding such declaration of maturity upon an Event of Default and the continuation thereof.

The Indenture provides that, subject to the duties of the Trustee to act with the required standard of care, if there is a continuing Event of Default, the Trustee need not exercise any of its rights or powers under the Indenture at the request or direction of any of the holders of Debt Securities, unless such holders have offered to the Trustee reasonable security or indemnity, (*Sections 601 and 603*) Subject to such provisions for security or indemnification of the Trustee and certain other conditions, the holders of a majority in principal amount of the outstanding Debt Securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power the Trustee holds with respect to the Debt Securities of that series, (*Section 512*)

No holder of any Debt Security of any series will have any right to institute any proceeding with respect to the Indenture or for any remedy under the Indenture unless:

- the Trustee has failed to institute such proceeding for 60 days after the holder has previously given to the Trustee written notice of a continuing Event of Default with respect to Debt Securities of that series;
- the holders of at least 25% in principal amount of the outstanding Debt Securities of that series have made written request, and offered reasonable security or indemnity, to the Trustee to institute such proceeding as Trustee; and
- the Trustee has not received from the holders of a majority in principal amount of the outstanding Debt Securities of that series a direction inconsistent with such request, (*Section 507*)

However, the holder of any Debt Security will have an absolute and unconditional right to receive payment of the principal of, and any premium or interest on, such Debt Security on or after the date or dates they are to be paid as expressed in such Debt Security and to institute suit for the enforcement of any such payment, *(Section 508)*

We are required to furnish to the Trustee annually a statement as to the absence of certain defaults under the Indenture, *(Section 1008)* The Indenture provides that the Trustee need not provide holders of Debt Securities of any series notice of any default (other than the nonpayment of principal, any premium or interest or sinking fund payments) if it considers it in the interest of the holders of Debt Securities of that series not to provide such notice, *(Section 602)*

Modification and Waiver

With respect to the Debt Securities, we and the Trustee may modify or amend the Indenture with the consent of the holders of a majority of the principal amount of the outstanding Debt Securities of each series affected by the modification or amendment. However, no such modification or amendment may, without the consent of the holders of all then outstanding Debt Securities of the affected series:

- change the due date of the principal of, or any installment of principal of or interest on, the Debt Securities of that series;

-

reduce the principal amount of, or any premium or interest rate on, the Debt Securities of that series;

- reduce the principal amount payable upon a declaration of maturity upon an Event of Default if the Debt Securities of that series provide for an amount less than the principal amount of such Debt Securities to be due and payable upon such declaration;
- change the place or currency of payment of principal of, or any premium or interest on, the Debt Securities of that series;
- impair the right to institute suit for the enforcement of any payment on or with respect to the Debt Securities of that series after the due date thereof; or
- reduce the percentage in principal amount of the Debt Securities of that series then outstanding, the consent of whose holders is required for modification or amendment of the Indenture, for waiver of compliance with certain provisions of the Indenture or for waiver of certain defaults. *(Section 902)*

The holders of a majority of the principal amount of the outstanding Debt Securities of any series may waive, insofar as that series is concerned, future compliance by us with certain restrictive covenants of the Indenture. *(Section 1009)* The holders of at least a majority in principal amount of the outstanding Debt Securities of any series may waive any past default under the Indenture with respect to that series, except a failure by us to pay the principal of, or any premium or interest on, any Debt Securities of that series or a provision that cannot be modified or amended without the consent of the holders of all outstanding Debt Securities of the affected series. *(Section 513)*

Defeasance

Defeasance and Discharge.

The Indenture provides that if the Debt Securities of any series so provide, we may be discharged from any and all obligations in respect of the Debt Securities of that series (except for certain obligations to register the transfer or exchange of Debt Securities of that series, to replace stolen, destroyed, lost or mutilated Debt Securities of that series, to maintain paying agencies, to compensate and indemnify the Trustee or to furnish the Trustee (if the Trustee is not the registrar) with the names and addresses of holders of Debt Securities of that series). We will be so discharged if we irrevocably deposit with the Trustee, in trust, money and/or securities of

the government which issues the currency in which the Debt Securities of that series are payable or securities of agencies backed by the full faith and credit of such government, which, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay each installment of principal of, and any premium and interest on, and any mandatory sinking fund payments in respect of, the Debt Securities of that series on the applicable due dates for those payments in accordance with the terms of those Debt Securities, (Sections 1302 and 1304)

This discharge may occur only if, among other things, we have delivered to the Trustee an opinion of counsel confirming that the holders of the Debt Securities of that series *will* not recognize income, gain or loss for United States federal income tax purposes as a result of such defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the discharge had not occurred. That opinion must state that we have received from, or there has been published by, the United States Internal Revenue Service a ruling or, since the date of execution of the Indenture, there has been a change in the applicable United States federal income tax law, in any case, in support of that opinion. (Section 1304)

In addition, we may also obtain a discharge of the Indenture with respect to all Debt Securities issued under the Indenture by depositing with the Trustee, in trust, money sufficient to pay all amounts due on the Debt Securities on the date such payments are due or upon redemption of all of such Debt Securities, so long as such Debt Securities are by their terms to become due and payable within one year or are to be called for redemption within one year. (Section 401)

Defeasance of Certain Covenants and Certain Events of Default. The Indenture provides that, if provided by the terms of the applicable series of Debt Securities, upon compliance with certain conditions:

- we may omit to comply with the covenants described under "Certain Covenants-Restrictions on Secured Debt," "-Restrictions on Sale and Lease-Back Transactions" and "Consolidation, Merger and Sale of Assets" (all other obligations under the Debt Securities of that series shall remain in full force and effect); and
- any omission to comply with those covenants will not constitute an Event of Default with respect to the Debt Securities of that series ("covenant defeasance"), (Sections 1303 and 1304)

The conditions include:

- depositing with the Trustee money and/or securities of the government which issues the currency in which the Debt Securities of that series are payable or securities of agencies backed by the full faith and credit of such government, which, through the payment of interest and principal in accordance with their terms, will provide money in an amount sufficient in the opinion of a nationally recognized firm of independent public accountants to pay each installment of principal of, any premium and interest on, and any mandatory sinking fund payments in respect of, the Debt Securities of that series on the due dates for those payments in accordance with the terms of those Debt Securities; and
- delivering to the Trustee an opinion of counsel to the effect that the holders of the Debt Securities of that series will not recognize income, gain or loss for United States federal income tax purposes as a result of the deposit and related covenant defeasance and will be subject to United States federal income tax on the same amounts and in the same manner and at the same times as would have been the case if the deposit and related covenant defeasance had not occurred. (Section 1304)

Covenant Defeasance and Certain Other Events of Default. If we exercise our option to effect a covenant defeasance with respect to the Debt Securities of any series as described above and the Debt Securities of that series are thereafter declared due and payable because of an Event of Default (other than an Event of Default caused

by failing to comply with the covenants that are defeased), the amount of money and securities we have deposited with the Trustee would be sufficient to pay amounts due on the Debt Securities of that series on their respective due dates but may not be sufficient to pay amounts due on the Debt Securities of that series at the time of acceleration resulting from such Event of Default, However, we would remain liable for such payments,

Consolidation, Merger and Sale of Assets

The Indenture provides that we may consolidate with or merge into any other corporation, or lease, sell or transfer all or substantially all of our property and assets if:

- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets is a corporation organized and existing under the laws of the United States, any state in the United States or the District of Columbia;
- the corporation formed by such consolidation or into which we are merged, or the party which acquires by lease, sale or transfer all or substantially all of our property and assets, agrees to pay the principal of, and any premium and interest on, all Debt Securities and perform and observe all covenants and conditions of the Indenture by executing and delivering to the Trustee a supplemental indenture; and
- immediately after giving effect to such transaction and treating indebtedness for borrowed money which becomes our obligation or an obligation of a Restricted Subsidiary as a result of such transaction as having been incurred by us or such Restricted Subsidiary at the time of such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing, *(Section 801)*

If, upon any such consolidation or merger, or upon any such lease, sale or transfer any of our Principal Property or any shares of capital stock or indebtedness of any Restricted Subsidiary, owned immediately prior to the transaction, would thereupon become subject to any mortgage, security interest, pledge or lien securing any indebtedness for borrowed money of, or guaranteed by, such other corporation or party (other than any mortgage, security interest, pledge or lien permitted as described under “Certain Covenants-Restrictions on Secured Debt” above), we, prior to such consolidation, merger, lease, sale or transfer, will, by executing and delivering to the Trustee a supplemental indenture, secure the due and punctual payment of the principal of, and any premium and interest on, the Debt Securities (together with, if we decide, any other indebtedness of, or guaranteed by, us or any Restricted Subsidiary and then existing or thereafter created) equally and proportionately with (or, at our option, prior to) the indebtedness secured by such mortgage, security interest, pledge or lien. *(Section 802)*

Book-Entry Debt Securities

All Debt Securities will be fully registered and will be in either book-entry form or in definitive form.

Debt Securities issued in book-entry form will be issued in the form of one or more fully registered global securities (each, a “Global Security”) that will be deposited with The Depository Trust Company, New York, New York (“DTC”) or its nominee. This means that we will not issue certificates to each holder. Each Global Security will be issued to DTC, who will keep a computerized record of its participants (for example, your broker) whose clients have purchased Debt Securities. The participant will then keep a record of its clients who purchased the Debt Securities. Unless it is exchanged in whole or in part for a certificate, a Global Security may not be transferred, except that DTC, its nominees, and their successors may transfer a Global Security as a whole to one another,

Beneficial interests in Global Securities will be shown on, and transfers of Global Securities will be made only through, records maintained by DTC and its participants. If you are not a participant in DTC you may beneficially own Debt Securities held by DTC only through a participant.

The laws of some states require that certain purchasers of securities take physical delivery of such securities in definitive form. Such limits and laws may impair the ability to transfer beneficial interests in a Global Security.

DTC has provided us the following information: DTC is a limited-purpose trust company organized under the New York Banking Law, a “banking organization” within the meaning of the New York Banking Law, a member of the United States Federal Reserve System, a “clearing corporation” within the meaning of the New York Uniform Commercial Code and a “clearing agency” registered under the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds securities that its participants deposit with DTC. DTC also records the settlement among participants of securities transactions, such as transfers and pledges, in deposited securities through computerized records for participants' accounts. This eliminates the need to exchange certificates. Participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations.

DTC's book-entry system is also used by other organizations such as securities brokers and dealers, banks and trust companies that work through a participant. The rules that apply to DTC and its participants are on file with the SEC.

DTC is owned by a number of its participants and by the New York Stock Exchange, Inc., The American Stock Exchange, Inc. and the National Association of Securities Dealers, Inc.

We will wire principal and interest payments to DTC's nominee. We and the Trustee will treat DTC's nominee as the owner of the Global Securities for all purposes. Accordingly, we, the Trustee and any paying agent will have no direct responsibility or liability to pay amounts due on the Global Securities to owners of beneficial interests in the Global Securities.

It is DTC's current practice, upon receipt of any payment of principal or interest, to credit participants' accounts on the payment date according to their respective holdings of beneficial interests in the Global Securities as shown on DTC's records. In addition, it is DTC's current practice to assign any consenting or voting rights to participants whose accounts are credited with Debt Securities on a record date, by using an omnibus proxy. Payments by participants to owners of beneficial interests in the Global Securities, and voting by participants, will be governed by the customary practices between the participants and owners of beneficial interests, as is the case with Debt Securities held for the account of customers registered in “Street Name.” However, payments will be the responsibility of the participants and not of DTC, the Trustee or us.

So long as DTC or its nominee is the registered owner of a Global Security, DTC or that nominee, as the case may be, will be considered the sole owner or holder of the Debt Securities represented by that Global Security for all purposes under the Indenture, Except as set forth in the next paragraph, owners of beneficial interests in a Global Security will not be entitled to have the Debt Securities represented by that Global Security registered in their names, will not receive or be entitled to receive physical delivery of the Debt Securities in definitive form and will not be considered the owners or holders of the Debt Securities under the Indenture.

We will issue Debt Securities of any series then represented by Global Securities in definitive form in exchange for those Global Securities if:

- DTC notifies us that it is unwilling or unable to continue as a clearing agency; or if DTC ceases to be a clearing agency registered under applicable law and a successor clearing agency is not appointed by us within 90 days; or
- we determine not to require all of the Debt Securities of a series to be represented by a Global Security.

If we issue Debt Securities in definitive form in exchange for a Global Security, an owner of a beneficial interest in the Global Security will be entitled to have Debt Securities equal in principal amount to the beneficial

interest registered in its name and will be entitled to physical delivery of those Debt Securities in definitive form. Debt Securities issued in definitive form will, except as set forth in the applicable prospectus supplement, be issued in denominations of \$1,000 and any multiple of \$1,000 in excess thereof and will be issued in registered form only, without coupons.

R.R. DONNELLEY & SONS COMPANY
DIRECTOR TIME VESTING PHANTOM STOCK AWARD
(2017 PIP)

This Time Vesting Phantom Stock Award (“Award”) is granted as of the ___ day of ___, 20___, (the “Grant Date”) by R.R. Donnelley & Sons Company, a Delaware corporation (the “Company”), to _____ (“Grantee”).

1. Grant of Award. The Company hereby credits to Grantee ___ stock units (the “Stock Units”), subject to the restrictions and on the terms and conditions set forth herein. This Award is made pursuant to the provisions of the Company’s 2017 Performance Incentive Plan (the “2017 PIP”). Capitalized terms not defined herein shall have the meanings specified in the 2017 PIP. Grantee shall indicate acceptance of this Award by signing and returning a copy hereof.
2. Vesting. The Company shall deliver to Grantee on the earlier of (1) the **first** anniversary of the Grant Date or (2) the date Grantee ceases to be a member of the Board or such other date as required by section 409A(a)(2)(A)(i) of the Internal Revenue Code of 1986, as amended (the “Code”), the number of Stock Units and cash in the amount of Dividend Equivalents (as defined below) earned with respect to such Stock Units pursuant to paragraph 4 below.
3. Settlement of Stock Units. As soon as practicable, but not more than 2½ months, following the date on which Stock Units become vested pursuant to Section 2 or Section 3 of this Agreement, or at such later time as provided in Section 9(i), the Company shall either (i) issue a share of common stock of the Company (“Common Stock”) with respect to each Stock Unit that became vested as of such vesting date or, alternatively, (ii) make a cash payment to Grantee, with respect to each Stock Unit that became vested on such vesting date, in an amount equal to the Fair Market Value of a share of Common Stock, determined as of such vesting date. Each Stock Unit shall be cancelled upon the payment with respect thereto.
4. Dividend Equivalents. An amount in cash equal to the amount of dividends and other distributions that are payable (other than dividends or distributions for which the record date is prior to the date hereof) during the period commencing on the date hereof and ending on the date on which no Stock Units shall remain outstanding on a like number of shares of Common Stock as are equal to the number of RSUs then outstanding shall be credited to a bookkeeping account for Grantee (the “Dividend Equivalents”). Such bookkeeping account shall be credited quarterly (beginning on the last day of the calendar quarter in which the first credit to the account was made) with an amount of interest on the balance (including interest previously credited) at an annual rate equal to the then current yield obtainable on United States government bonds having a maturity date of approximately five years.
5. Rights as a Shareholder. Grantee shall not have the right to vote, nor have any other rights of ownership in, any shares of Common Stock relating to the Stock Units unless and until shares of Common Stock are issued upon the settlement of such Stock Units.

6. Withholding Taxes.

(a) As a condition precedent to the issuance to Grantee of any shares of Common Stock or the payment of any cash pursuant to this Award, the Grantee shall, upon request by the Company, pay to the Company such amount of cash as the Company may be required, under all applicable federal, state, local or other laws or regulations, to withhold and pay over as income or other withholding taxes (the "Required Tax Payments") with respect to the Award. If Grantee shall fail to advance the Required Tax Payments after request by the Company, the Company may, in its discretion, deduct any Required Tax Payments from any amount then or thereafter payable by the Company to Grantee.

(b) With respect to the portion of the Award that is settled in shares of Common Stock, Grantee may elect to satisfy his obligation to advance the Required Tax Payments by any of the following means: (1) a cash payment to the Company, (2) delivery to the Company of previously owned whole shares of Common Stock for which Grantee has good title, free and clear of all liens and encumbrances, having a fair market value, determined as of the date the obligation to withhold or pay taxes first arises in connection with the Award (the "Tax Date"), equal to the Required Tax Payments, (3) directing the Company to withhold a number of shares of Common Stock otherwise issuable to Grantee pursuant to this Award having a fair market value, determined as of the Tax Date, equal to the Required Tax Payments or (4) any combination of (1)-(3). Any fraction of a share of Common Stock that would be required to satisfy such an obligation shall be disregarded and the remaining amount due shall be paid in cash by Grantee. No certificate representing a share of Common Stock shall be delivered until the Required Tax Payments have been satisfied in full. For purposes of this Award, the fair market value of a share of Common Stock on a specified date shall be determined by reference to the closing stock price in trading of the Common Stock on such date, or, if no such trading in the Common Stock occurred on such date, then on the next preceding date when such trading occurred.

7. Miscellaneous.

(a) The Company shall pay all original issue or transfer taxes with respect to the issuance or delivery of shares of Common Stock pursuant hereto and all other fees and expenses necessarily incurred by the Company in connection therewith, and will use reasonable efforts to comply with all laws and regulations which, in the opinion of counsel for the Company, shall be applicable thereto.

(b) This Award shall be governed in accordance with the laws of the state of Delaware.

(c) This Award shall be binding upon and inure to the benefit of any successor or successors to the Company.

(d) Neither this Award nor the Stock Units nor any rights hereunder or thereunder may be transferred or assigned by Grantee other than by will or the laws of descent and distribution or pursuant to beneficiary designation procedures approved by the

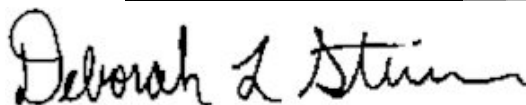
Company or other procedures approved by the Company. Any other transfer or attempted assignment, pledge or hypothecation, whether or not by operation of law, shall be void.

(e) The Human Resources Committee of the Board of Directors of the Company (the "Committee"), as from time to time constituted, shall have the right to determine any questions which arise in connection with this Agreement or the Stock Units. This Agreement and the Stock Units are subject to the provisions of the 2017 PIP and shall be interpreted in accordance therewith.

IN WITNESS WHEREOF, the Company has caused this Award to be duly executed by its duly authorized officer.

R.R. Donnelley & Sons Company

By:



Name: Deborah Steiner

Title: EVP, General Counsel

Accepted: _____

R.R. DONNELLEY & SONS COMPANY
DIRECTOR RESTRICTED STOCK UNIT AWARD

This Restricted Stock Unit Award (“Award”) is granted as of this ___ day of _____, 20___ (the “Grant Date”) by R.R. Donnelley & Sons Company, a Delaware corporation (the “Company”), to _____ (“Grantee”). This Award is made to Grantee pursuant to the provisions of the Company’s 2017 Performance Incentive Plan (the “2017 PIP”). Capitalized terms not defined herein shall have the meanings specified in the 2017 PIP.

1. Grant of Award. The Company hereby credits to Grantee _____ restricted stock units (the “RSUs”), subject to the restrictions and on the terms and conditions set forth herein. Grantee shall indicate acceptance of this Award by signing and returning a copy hereof.

2. Issuance of Common Stock in Satisfaction of Restricted Stock Units.

(a) Except to the extent otherwise provided in paragraph 2(c) below, the Company shall deliver to Grantee on the earlier of (1) the first anniversary of the Grant Date or (2) the date Grantee ceases to be a member of the Board or such other date as required by section 409A(a)(2)(A)(i) of the Internal Revenue Code of 1986, as amended (the “Code”), the number of shares of Common Stock equal to all of the RSUs and cash in the amount of Dividend Equivalents (as defined below) earned with respect to such RSUs pursuant to paragraph 4 below.

(b) Upon the Acceleration Date associated with a Change in Control, shares of Common Stock with respect to any remaining RSUs and cash in the amount of Dividend Equivalents earned with respect to such RSUs pursuant to paragraph 4 below shall be delivered to Grantee in accordance with the terms of the 2017 PIP.

(c) Each RSU shall be cancelled upon the issuance of a share of Common Stock (or cash with respect to fractional shares) with respect thereto.

3. Dividend Equivalents. An amount in cash equal to the amount of dividends and other distributions that are payable (other than dividends or distributions for which the record date is prior to the date hereof) during the period commencing on the date hereof and ending on the date on which no RSUs shall remain outstanding (due to issuance of shares of Common Stock (or cash) in satisfaction of RSUs pursuant to paragraphs 2 and 3) on a like number of shares of Common Stock as are equal to the number of RSUs then outstanding shall be credited to a bookkeeping account for Grantee (the “Dividend Equivalents”). Such bookkeeping account shall be credited quarterly (beginning on the last day of the calendar quarter in which the first credit to the account was made) with an amount of interest on the balance (including interest previously

credited) at an annual rate equal to the then current yield obtainable on United States government bonds having a maturity date of approximately five years.

4. Rights as a Shareholder. Prior to issuance, Grantee shall not have the right to vote, nor have any other rights of ownership in, the shares of Common Stock to be issued in satisfaction of the RSUs.

5. Withholding Taxes

(a) As a condition precedent to the issuance to Grantee of any shares of Common Stock pursuant to this Award, Grantee shall, upon request by the Company, pay to the Company such amount of cash as the Company may be required, under all applicable and allowable laws or regulations, to withhold and pay over as income or other withholding taxes (the "Required Tax Payments") with respect to the Award and any Dividend Equivalents. If Grantee shall fail to advance the Required Tax Payments after request by the Company, the Company may, in its discretion, deduct any Required Tax Payments from any amount then or thereafter payable by the Company to Grantee.

(b) Grantee may elect to satisfy his or her obligation to advance the Required Tax Payments by any of the following means: (1) a cash payment to the Company, (2) delivery to the Company of previously owned whole shares of Common Stock for which Grantee has good title, free and clear of all liens and encumbrances, having a fair market value, determined as of the date the obligation to withhold or pay taxes first arises in connection with the Award and any Dividend Equivalents (the "Tax Date"), equal to the Required Tax Payments, or (3) directing the Company to withhold a number of shares of Common Stock (or cash) otherwise issuable to Grantee pursuant to this Award and any Dividend Equivalents having a fair market value, determined as of the Tax Date, equal to the Required Tax Payments or any combination of (1)-(3). No certificate representing a share of Common Stock shall be delivered until the Required Tax Payments have been satisfied in full. For purposes of this Award and any Dividend Equivalents, the fair market value of a share of Common Stock on a specified date shall be determined by reference to the closing stock price in trading of the Common Stock or, if no such trading in the Common Stock occurred on such date, then on the next preceding date when such trading occurred.

6. Miscellaneous

(a) The Company shall pay all original issue or transfer taxes with respect to the issuance or delivery of shares of Common Stock pursuant hereto and all other fees and expenses necessarily incurred by the Company in connection therewith, and will use reasonable efforts to comply with all laws and regulations which, in the opinion of counsel for the Company, shall be applicable thereto.

(b) This Award shall be governed in accordance with the laws of the State of Illinois.

(c) This Award shall be binding upon and inure to the benefit of any successor or successors to the Company.

(d) Neither this Award nor the RSUs nor any rights hereunder or thereunder may be transferred or assigned by Grantee other than:

(1) by will or the laws of descent and distribution;

(2) in whole or in part to one or more transferees; provided that (i) any such transfer must be without consideration, (ii) each transferee must be a "family member" of Grantee, a trust established for the exclusive benefit of Grantee and/or one or more family member of Grantee or a partnership whose sole equity owners are Grantee and/or family members of Grantee, and (iii) such transfer is specifically approved by the Company's General Counsel or the Committee following the receipt of a completed Assignment of Restricted Stock Unit Award attached hereto as Exhibit A; or

(3) as otherwise set forth in an amendment to this

Award.

In the event the RSUs are transferred as contemplated in this Section 7(d), such transfer shall become effective when approved by the Company's General Counsel or the Committee (as evidenced by counter execution of the Assignment of Restricted Stock Unit Award on behalf of the Company), and such RSUs may not be subsequently transferred by the transferee other than by will or the laws of descent and distribution. Any transferred RSU shall continue to be governed by and subject to the terms and conditions of the 2017 PIP and this Agreement and the transferee shall be entitled to the same rights as Grantee as if no transfer had taken place. Except as permitted by the foregoing, the RSUs and this Award may not be sold, transferred, assigned, pledged, hypothecated, encumbered or otherwise disposed of (whether by operation of law or otherwise) or be subject to execution, attachment or similar process. Upon any attempt to so sell, transfer, assign, pledge, hypothecate, encumber or otherwise dispose of the RSUs, the RSUs and all rights hereunder shall immediately become null and void. As used in this Section, "family member" with respect to any person, includes any child, step-child, grandchild, parent, step-parent, grandparent, spouse, former spouse, sibling, niece, nephew, mother-in-law, father-in-law, son-in-law, daughter-in-law, brother-in-law and sister-in-law, including adoptive relationships, and any person sharing the transferor's household (other than a tenant or employee).

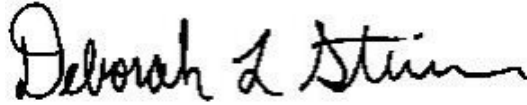
(e) The Committee, as from time to time constituted, shall have the right to determine any questions which arise in connection with this Award, the

RSUs or the Dividend Equivalents. This Award and the RSUs are subject to the provisions of the 2017 PIP and shall be interpreted in accordance therewith.

IN WITNESS WHEREOF, the Company has caused this Award to be duly executed by its duly authorized officer.

R.R. Donnelley & Sons Company

_____ By:



Name: Deborah Steiner

Title: EVP, General Counsel

Accepted: _____

**R.R. Donnelley & Sons Company
Subsidiaries**

<u>Entity Name</u>	<u>Jurisdiction</u>
American Lithographers, Inc.	California
Banta Corporation	Wisconsin
Banta Europe B.V.	Netherlands
Banta Global Turnkey (Shenzhen) Co., Ltd.	China
Banta Global Turnkey (Singapore) PTE LTD	Singapore
Banta Global Turnkey LLC	Texas
Banta Global Turnkey Ltd. [Ireland]	Ireland
Beijing Donnelley Commercial Co., Ltd.	Beijing
Bridgetown Printing Co.	Oregon
CGX Yamagata Japan GK	Japan
Consolidated Graphics B.V.	Netherlands
Consolidated Graphics International, Inc.	Delaware
Consolidated Graphics Properties II, Inc.	Texas
Consolidated Graphics Services, Inc.	Delaware
Consolidated Graphics, Inc.	Texas
Courier International Holdings, LLC	Delaware
Courier Printing Company	Tennessee
Courier Tecnologia em Serviços Gráficos Ltda.	Brazil
Data Entry Holdings Limited (Jersey)	Channel Islands
DDM-Digital Imaging, Data Processing and Mailing Services, L.C.	Florida
Digital Page Brazil LLC	Delaware
Dongguan Donnelley Printing Co., Ltd.	China
Donnelley Cochrane Grafica Editora Do Brasil Ltda.	Brazil
e-doc Group Pension Scheme Trustee Limited	England and Wales
EGT Printing Solutions, LLC	Michigan
Emerald City Graphics, Inc.	Washington
GSL Fine Lithographers	California
Hickory Printing Solutions, LLC	North Carolina
Impresora Donneco Internacional, S. de R.L. de C.V.	Mexico
Ironwood Lithographers, Inc.	Delaware
Kelmscott Communications LLC	Delaware
King Yip (Dongguan) Printing & Packaging Factory Ltd.	China
Mercury Printing Company, LLC	Tennessee
Moore (St.Lucia) Ltd	St. Lucia
Moore Canada Corporation	Nova Scotia
Moore Paragon (Caribbean) Limited	Barbados
Moore Paragon Limited	Grenada

Moore Trinidad Ltd	Trinidad
Nies/Artcraft, Inc.	Missouri
OfficeTiger BV	Netherlands
OfficeTiger Holdings Inc.	Delaware
OfficeTiger LLC	Delaware
PBM Graphics, Inc.	North Carolina
Precision Dialogue Direct, Inc.	Illinois
Precision Dialogue Marketing, LLC	Ohio
Precision Dialogue, Inc.	Delaware
Precision Litho, Inc.	California
R R Donnelley Outsource (Private) Limited	Sri Lanka
R. R. Donnelley & Sons Company	Delaware
R. R. Donnelley (Santiago) Holdings LLC	Delaware
R. R. Donnelley Argentina, S.A.	Argentina
R. R. Donnelley Chile Limitada	Chile
R. R. Donnelley de Costa Rica, S.A.	Costa Rica
R. R. Donnelley de El Salvador, S.A. de C.V.	El Salvador
R. R. Donnelley de Guatemala, S.A.	Guatemala
R. R. Donnelley de Honduras, S.A. de C.V.	Honduras
R. R. Donnelley Europe B.V.	Netherlands
R. R. Donnelley Global, Inc	Delaware
R. R. Donnelley Holdings C.V.	Netherlands
R. R. Donnelley Hungary Printing and Trading Limited Liability Company	Hungary
R. R. Donnelley Latin America L.L.C.	Delaware
R.R. Donnelley & Sons Company Good Government Fund	Illinois
R.R. Donnelley de Puerto Rico, Corp.	Puerto Rico
R.R. Donnelley GTS Poland Sp zo.o.	Poland
R.R. Donnelley Holdings B.V.	Netherlands
R.R. Donnelley UK Directory Limited	England and Wales
RR Donnelley (Chengdu) Printing Co., Ltd.	Chengdu
RR Donnelley (China) Holding Co., Ltd	China
RR Donnelley (Henan) P&P Industrial Company Limited	China
RR Donnelley (Kunshan) Packaging Technology Co., Ltd	China
RR Donnelley (Mauritius) Holdings Ltd	Mauritius
RR Donnelley (Shanghai) Commercial Co., Ltd Hangzhou Branch	China
RR Donnelley (Shanghai) Commercial Co., Ltd.	China
RR Donnelley (Shanghai) Information Technology Co., Ltd.	Shanghai
RR Donnelley (Thailand) Company Limited	Thailand
RR DONNELLEY (VIET NAM) PACKING TECHNOLOGY COMPANY LIMITED	Vietnam Law
RR Donnelley (Weifang) Packaging Technology Co., Ltd	China
RR Donnelley Asia Printing Solutions Limited	Hong Kong
RR Donnelley Czech s.r.o.	Czech Republic
RR Donnelley Editora e Grafica Ltda.	Brazil

RR Donnelley Electronics (Suzhou) Co., Ltd.	Jiangsu Province
RR Donnelley Global Turnkey Solutions Limited	Ireland
RR Donnelley Global Turnkey Solutions Mexico, S. de R.L. de C.V.	Mexico
RR Donnelley Guangdong Printing Solutions Limited	Guangdong
RR Donnelley Holdings (Australia) Pty Ltd	NSW
RR Donnelley Holdings Japan GK	Japan
RR Donnelley India Outsource Private Limited	Chennai
RR Donnelley Korea LLC	Korea
RR Donnelley Logistics Services Worldwide, Inc.	Delaware
RR Donnelley Philippines Inc.	Philippines
RR Donnelley Prague s.r.o	Czech Republic
RR Donnelley Solutions Singapore Pte. Ltd.	Singapore
RR DONNELLEY(MAURITIUS) HOLDINGS LTD	Mauritius
RRD Dutch Holdco, Inc.	Delaware
RRD Group Netherlands B.V	Netherlands
RRD Holdings C.V.	Netherlands
RRD Netherlands LLC	Delaware
Shanghai Donnelley PreMedia Technology Co., Ltd.	Shanghai
Shenzhen Donnelley Printing Co., Ltd.	China
Sierra Industrial S. de R.L. de C.V.	Mexico
The Jackson Group Corporation	Indiana
The Jarvis Press, Inc.	Texas
The McKay Press, Inc.	Michigan
Thousand Oaks Printing & Specialties, Inc.	California
Veritas Document Solutions, LLC	Delaware

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in Registration Statement Nos. 333-83414, 333-80995, 333-113258, 333-159393, 333-186881, 333-214398, 333-218092, 333-233022, and 333-258580 on Form S-8 and Registration Statement Nos. 333-192570, 333-202945 and 333-238490 on Form S-4 of our reports dated February 24, 2022, relating to the consolidated financial statements of R.R. Donnelley & Sons Company and subsidiaries (the “Company”) and the effectiveness of the Company’s internal control over financial reporting appearing in this Annual Report on Form 10-K of R.R. Donnelley & Sons Company for the year ended December 31, 2021.

/s/ DELOITTE & TOUCHE LLP

Chicago, Illinois

February 24, 2022

POWER OF ATTORNEY

KNOW ALL BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Deborah L. Steiner, Michael Sharp, and Terry Peterson, or any of them, his or her true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, in any and all capacities, to sign the Annual Report on Form 10-K of R. R. Donnelley & Sons Company for its fiscal year ended December 31, 2021 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 close of the transaction between RRD and Chatham.

Dated: February 16, 2022

/s/ Irene M. Esteves

Irene M. Esteves

/s/ James Ray

James Ray

/s/ John C. Pope

John C. Pope

/s/ Jamie Moldafsky

Jamie Moldafsky

/s/ Timothy R. McLevish

Timothy R. McLevish

/s/ Susan M. Gianinno

Susan M. Gianinno

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

I, Daniel L. Knotts, certify that:

1. I have reviewed this Annual Report on Form 10-K of R.R. Donnelley & Sons Company;
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 24, 2022

/s/ DANIEL L. KNOTTS

Daniel L. Knotts
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, Terry D. Peterson, certify that:

1. I have reviewed this Annual Report on Form 10-K of R.R. Donnelley & Sons Company;
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 24, 2022

/s/ TERRY D. PETERSON

Terry D. Peterson
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 R. R. Donnelley & Sons Company (the "Company") on Form 10-K for the period ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Daniel L. Knotts, 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 24, 2022

/s/ DANIEL L. KNOTTS

Daniel L. Knotts
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 R. R. Donnelley & Sons Company (the "Company") on Form 10-K for the period ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Terry D. Peterson, 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 24, 2022

/s/ TERRY D. PETERSON

Terry D. Peterson
Executive Vice President and Chief Financial Officer