Meeting the Moment

2021 Annual Report

180 years of helping clients manage risk and identify opportunities to shape a better tomorrow

dun & bradstreet

Dun & Bradstreet is the established global leader in business decisioning data and analytical insights. Our more than 6,000 employees are dedicated to this purpose, driving innovation and the delivery of new solutions to enable our clients to transform uncertainty into confidence, risk into opportunity and potential into prosperity.

$2.2B

In Revenue

~39%

Adjusted EBITDA Margin*

~200K

Global Clients

460+M

Total Organizations Included in Data Cloud

~28K

Proprietary and Public Data Sources

256

Countries and Territories Included in Data Cloud

>20 Years

With 21 of our Top 25 Clients

*See page 12

William P. Foley, II, Executive Chairman

Anthony M. Jabbour, Chief Executive Officer

To Our Valued Shareholders:

In this, Dun & Bradstreet's 180-year anniversary, we are proud to serve more than 200,000 businesses, ranging from some of the largest companies in the world to sole proprietors, who use our data and analytics to help inform their business decisions.

We take seriously our obligation to deliver vital data and analytical insights during all phases of an organization's lifecycle and in any economic environment. Supporting our clients by delivering actionable information and innovative solutions is what has sustained our leading market position and will continue to propel our business in the future.

Dun & Bradstreet was built on a solid foundation that has sustained our business for generations. We are proud of what we are achieving today and the future we are building. If you recall, in February 2019, we put in motion a plan to grow our business and to maximize the potential of this incredible asset and storied brand. In that time, we have made significant financial and operational improvements.

From a financial perspective, we have grown adjusted revenues nearly 30% and adjusted earnings before interest, taxes, depreciation and amortization (EBITDA) nearly 50%, or approximately $280 million. We reintroduced Dun & Bradstreet to the public markets in July 2020, raising approximately $2.2 billion. And we expanded adjusted EBITDA margin by nearly 600 basis points. The seeds of our success can be found in our strategy to transform our business, improve our operational efficiency, and deliver growth, which we implemented since 2019 and has served us well. Our strong results are a direct reflection of our effective execution of this strategy.

We continue to innovate the ways we source and deliver our data and analytics to enable our clients to remain competitive in an ever-changing digital landscape

Our operating metrics are equally impressive. An array of growth initiatives delivered positive results:

- We have increased our Vitality Index, which measures revenue generated from new products, to nearly 8%.
- We work to be a strategic partner for our clients as we identify and develop new solutions to help them grow their businesses. This approach has contributed to the doubling of our contribution from multi-year contracts, which now account for 50% of our sales.
- Fueled by technology investments, we have significantly increased the percentage of revenue from modern application programming interface (API)-based solutions so that our clients can easily integrate our Data Cloud directly into their workflows. API solutions now account for 10% of our revenues, and our recurring revenues have grown to over 90%, which provide us with a very defensible base from which to grow.
- Through our enhanced data supply chain, we continue to gather and incorporate additional new sources of data, including alternative data, and have grown our data coverage globally by nearly 50% since privatization. Our Data Cloud now contains comprehensive information on more than 460 million total organizations.
- We built upon our core strengths and our positions within key markets to grow both organically and through strategic acquisitions to ensure our leadership position. We have acquired nine companies since privatization, allowing us to expand our capabilities, and we have doubled the size of our International business.

Part of the success we are having is driven by our International business, including our successful acquisition and integration of Bisnode, now operating as D&B Europe. Through a tremendous amount of effort and teamwork, the business performance of D&B Europe has improved significantly with improvement to both top line growth and profitability. Our clients in Europe have responded well to the new and modern solutions that are supported by more local data, local knowledge and streamlined delivery channels.

In fiscal year 2021, Dun & Bradstreet's growth was broad-based, with full year adjusted revenues of $2.17 billion, an increase of 25% versus 2020, and adjusted EBITDA of $847 million, an increase of 19%, compared with 2020.

On the Finance & Risk side of our business, we continue to see heightened demand from both new and existing clients as enterprises cope with an ever-evolving supply chain risk management landscape. Throughout the year, our clients turned to us to support their third-party risk management strategies as they sought to expand and enhance controls around their global supply chain. Another focus for our team in 2021 was the rapid development of our AI-driven D&B Environmental, Social and Governance (ESG) Intelligence capability — built from our Data Cloud and utitilizing established sustainability standards — to help companies gain better visibility into both their own standing and the standing of the third-parties they interact with.

As more and more companies are integrating ESG targets and goals into their business strategies, procurement and compliance professionals are under pressure to implement ESG criteria into their third-party assessment policies and due diligence processes to meet regulatory requirements, stakeholder and contractual commitments and to minimize risk. We recognize the complexities of supply chain management and procurement, particularly when ensuring that third parties are adhering to rigorous ESG standards. Our solution offers relevant sustainability and ESG performance datasets and analytics, on a growing list of more than 20 million (as of Dec. 31, 2021) public and private companies. We believe our ESG data enables compliance and procurement teams to protect company reputation, benchmark against industry trends, identify ESG risks and goals and assess progress against them, monitor shifting ESG risks through automated approaches, and streamline ESG assessment processes.

On the Sales & Marketing side, we made significant investments to bolster our offerings. In May, we announced D&B Rev.Up, a solution that simplifies and automates marketing and sales workflows by providing data, targeting, activation and measurement in a single platform and that easily integrates into a customers' existing martech or salestech platform using open architecture integrations. Enhancing our digital marketing solutions was a focus for the team throughout the year and helped pave the way for the acquisitions of NetWise Data, LLC and Eyeota Holdings Pte. Ltd. in November, strengthening our rapidly expanding Audience Solutions offering. Through these acquisitions, we were able to accelerate our goal of helping marketers target B2B clients and prospects across every major online channel, individual device or marketing platform.

We are proud of our accomplishments and our team's dedication to our transformation and growth strategy. These results and our momentum reflect the underlying strength of our strategy and our organization. It is rewarding to see the positive and productive culture that has developed across our Dun & Bradstreet family.

In conjunction with this annual report, we will be releasing Dun & Bradstreet's Corporate Social Responsibility report. It will highlight strategic priorities in the areas of social responsibility, environmental sustainability and corporate governance, and align with the United Nations Sustainable Development Goals and the Sustainability Accounting Standards Board framework. Just as we are building on our commercial ESG capabilities, we also will be digging deeper into our ESG initiatives in 2022 to ensure transparency and deliver on the interests of our many stakeholders. You can read more about our efforts in the report and on our website.

As we enter 2022, we are enthusiastic about the opportunities that lie ahead for Dun & Bradstreet. Every day, we continue to be amazed by the outstanding talent, tremendous energy and innovative thinking our people bring to our organization. We are confident that Dun & Bradstreet is well-positioned to take advantage of new and compelling opportunities, and in doing so, will deliver enduring value for shareholders and other stakeholders for generations to come.

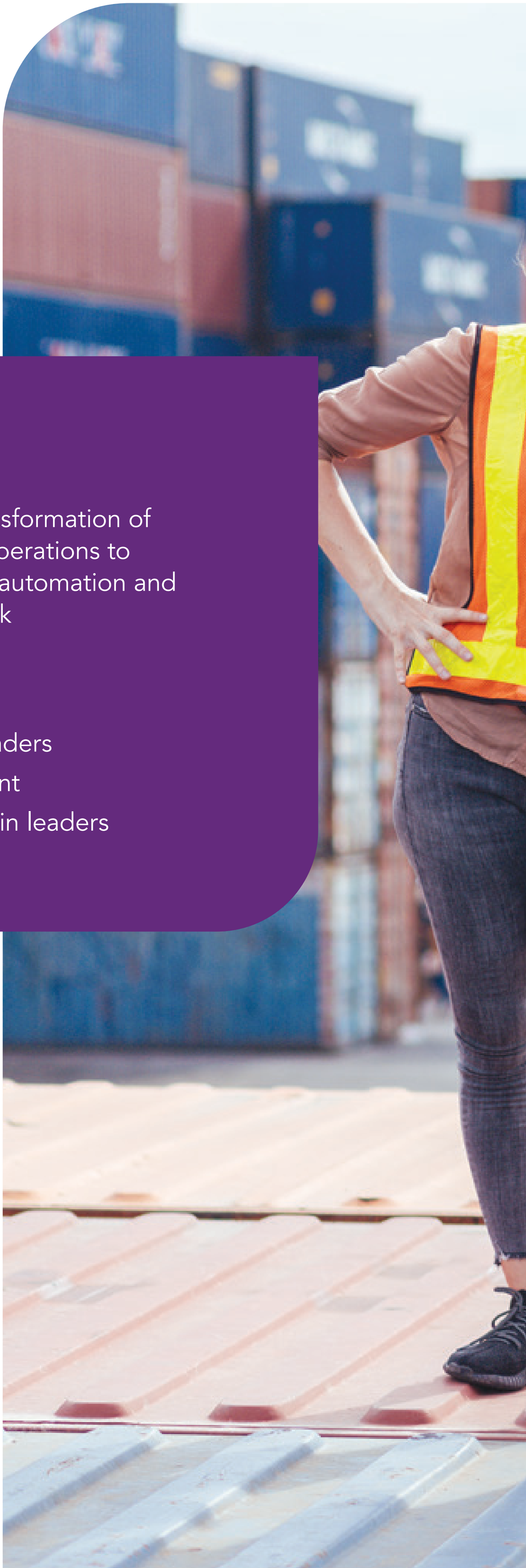
Sincerely,

William P. Foley, II
Executive Chairman

Anthony M. Jabbour
Chief Executive Officer

FINANCE & RISK

Managing Risk in an Ever-Changing World



MARKET DYNAMICS

- Evolving regulatory and compliance environment
- Data and operational fragmentation
- Increased financial and operational risk
- Weakened global supply chain

CLIENT NEED

- Digital transformation of business operations to accelerate automation and manage risk

AUDIENCE

- Finance leaders
- Procurement
- Supply chain leaders

The Industry Challenge

Following the initial crisis management efforts of 2020, businesses spent much of 2021 striving to further contain the fallout of the COVID-19 pandemic — a painful reminder of the impact of systemic risks. Not since the Great Recession of 2008 had the business community received such a strong message about the need for better operational visibility, oversight and resiliency.

In many cases, the past two years of unprecedented events have served as the catalyst for businesses to accelerate their digital transformation efforts. Developing effective risk management strategies depends in part on the ability to connect crucial information and processes to create agile operations that could quickly pivot to address new and unexpected challenges or threats.

98%

Of U.S. and UK supply chain and procurement leaders struggle with operational efficiency and data management*

How We Supported Clients

In 2021, we improved capabilities in our flagship finance and risk solutions to help support business recovery and continuity, allowing companies to gain transparency into their operations so that they could better manage vendor onboarding, credit risk and collections processes.

And when it came to managing risk, there was no bigger challenge than the supply chain delays that plagued every consumer-facing industry. As store shelves emptied and cars sat on production lines, it was clear that globalization had created an interconnected supply chain where regions depended on each other to manufacture and transport goods. Dun & Bradstreet worked with clients throughout the year to leverage a host of datasets — from shipping to financial health and business viability data — to illuminate supplier networks and enable traceability on the movement and sale of goods. In addition, our risk data helped top global retailers gain greater transparency into their supply chains by validating new suppliers, monitoring suppliers' performance and identifying alternative suppliers where necessary to prevent any impacts to a company's global supply chain operation.

The Future

Ongoing political, cultural, technological and environmental shifts are likely to inject new risks into the business landscape. Dun & Bradstreet is committed to offering data-driven solutions that help finance, procurement, compliance and risk management teams improve their abilities to assess and validate customers and third parties, streamline internal financial processes, build operational resilience, and preserve stability under any circumstance. We help clients manage risk and have made inroads to develop solutions that tackle the next generation of business challenges, including:

- Helping clients make smart investments and conduct business with ethical and sustainable third parties, using our ESG data.
- Identifying and managing fraudulent activity across client, supplier and partner networks.

*December 2020 Dun & Bradstreet survey among ~1,000 U.S. and UK supply chain and procurement leaders.

SALES & MARKETING

Enabling Marketers to Digitally Identify, Target and Reach Business Buyers Online

MARKET DYNAMICS

- Proliferation of data
- Consumerization of online B2B sales and marketing
- Demand for personalized outreach and experiences
- Increased privacy concerns

CLIENT NEED

- Consistent, trusted data foundation to enhance business performance and gain a competitive edge
- Digitization of the B2B buying journey

AUDIENCE

- Chief Marketing Officer
- Revenue-generating teams, including Sales, Marketing and Advertising
- Advertising agencies

The Industry Challenge

The global movement over the past two years to work from home accelerated the digitization of the B2B buying journey as decision makers turned from in-person conferences and print media, to online channels and social media in order to research products and inform their buying decisions. While the expansive digital world offers a lot of opportunity for marketers, they are often unsure about whether their advertising and media dollars are reaching the right target audiences online.

How We Supported Clients

In 2021, Dun & Bradstreet made several strategic investments to drive innovation that helps revenue-generating teams — including Sales, Marketing and Advertising — break down silos and modernize the way they approach their multi-channel digital outreach programs.

- We enhanced our D&B Master Data solutions so that clients can better connect and integrate their data across multiple systems and workflows to improve engagement and experiences with customers and prospects.

94%

Of Sales, Marketing, RevOps and data decision-makers agree that in the past 12 months, the need to align go-to-market teams grew in importance to deliver the best digital experience to prospects and customers*

- We launched D&B Rev.Up — the industry's first all-in-one, automated and open platform that allows marketers to bring together their own data, third-party data and a host of software applications to target potential buyers, buy digital advertising space and then deploy it. Powered by artificial intelligence, D&B Rev.Up learns from each campaign and helps marketers build smarter, better-performing campaigns so they can be assured that their marketing dollars have been spent wisely to target high-propensity buyers.

- A collaboration with **Bombora** enables businesses to unlock the buying power of decision makers through improved intent signals while our work with **Zeta Global** leverages technology solutions to create personalized, insight-driven marketing touchpoints informed by individual and business preferences.

- We also acquired **NetWise** and **Eyeota** to boost our Audience Solutions capabilities. NetWise joins the offline and online worlds to connect professional contact data and personal preference data, while Eyeota offers an audience technology platform that allows marketers and agencies to on-board their existing customer data, find new audiences from Eyeota's list of third-party data segments, and helps them build and execute multi-channel digital advertising campaigns.

Dun & Bradstreet's investments in marketing and advertising continue to pay off as our Audience Solutions business grew over 40% year-over-year in 2021.

The Future

Strategic global marketing is a fast-paced, growing market, and Dun & Bradstreet is seizing the opportunity to expand its role as the global provider of trusted data that fuels a more expansive set of B2B marketing and sales solutions. Just as our clients rely on the D-U-N-S® Number for precision in their offline data, our innovation and investments in sales and marketing tools in 2022 and beyond will provide them with the same level of confidence and consistency online as well.

*Q4 2021 Dun & Bradstreet survey among 605 Sales, Marketing, RevOps and data decision-makers in midsize and enterprise companies from the U.S., Canada, and the UK.

SMALL BUSINESS

Supporting the Rebound of the Small Business Community

MARKET DYNAMICS

- Expansion of the Gig Economy
- Employee and business operation fluctuations
- End of government relief programs
- Supply chain delays
- Credit inclusivity and access to capital

CLIENT NEED

- All-in-one data-driven resources to help small business owners plan, launch, build, manage and grow their businesses

AUDIENCE

- Small business owners and teams
- Entrepreneurs
- Financial lenders

The Industry Challenge

Small and midsize companies — accounting for more than 90% of the world's businesses — continued to be challenged by several factors in the "new normal" that engulfed the small business universe in 2020 and beyond. These included worker and inventory shortages, an ever-changing external market, and the rapid move towards e-commerce. As smaller, more nimble organizations, they moved with urgency, often leveraging their own consumer insights to plan, launch, build, manage and grow their businesses.

How We Support Clients

In a world where business and personal lives are far more closely intertwined, small business owners sought all-in-one digital tools to manage their business and create a frictionless experience for customers. Our long-term goal at Dun & Bradstreet is to be a one-stop provider for small businesses — offering them a host of digital, self-service solutions that help them to manage their financial health and business operations, and expand their footprint with new and existing customers.

59%

Of small businesses found opportunity amidst the pandemic by identifying new business opportunities and introducing new products*

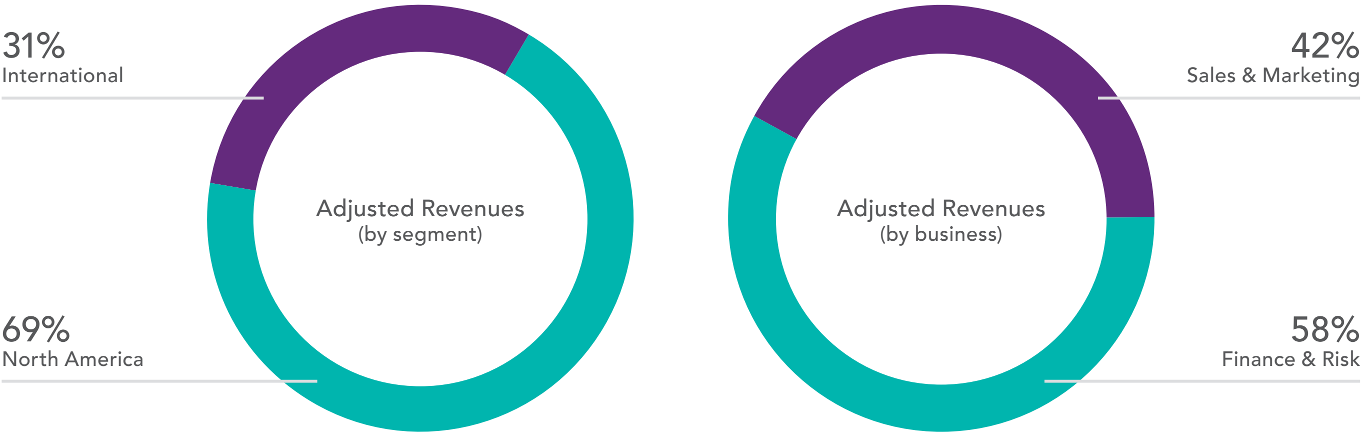
- We launched D&B Business Listings to help small business owners create their online company profiles and update pertinent business information such as business hours, locations, payment methods and more — in one place. This enables small businesses to distribute their updates across more than 60 online platforms, including Apple Maps, Bing, Yahoo and more.
- Our D&B Marketplace and e-commerce capabilities make it easier for small business owners to identify and purchase data and solutions from Dun & Bradstreet and its small business partners online.
- A new self-serve marketing and advertising platform, D&B Rev.Up Now, enables small businesses to create and deploy addressable marketing for targeted audiences of potential customers using technology from **Zeta Global**.
- Strategic partnerships were also created to help small businesses better manage their banking and credit profiles as they look to improve their financial intelligence and raise capital.

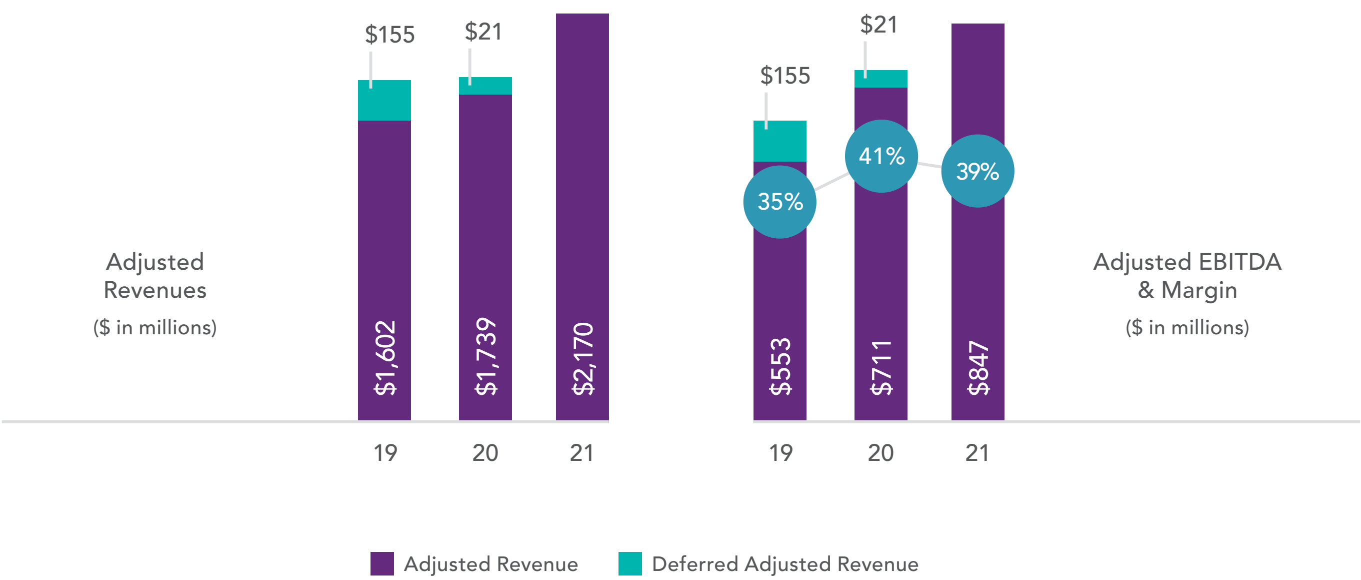
The Future

We are committed to driving innovation and delivering analytic insights and solutions that both enable organizations to better serve the small business community and empower them to turn their ideas into reality and expand their operations on a global scale.

*December 2020 Dun & Bradstreet survey among 758 managers/senior managers in companies with two to 250 employees in the U.S.

2021 Highlights





- Adjusted Revenue and Adjusted EBITDA are non-GAAP financial measures. Please refer to Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operations in Dun & Bradstreet's 2021 Form 10-K for a discussion of non-GAAP financial measures and a reconciliation to the GAAP results.
- 2019 represents pro-forma combined basis; Adjusted Revenue and Adjusted EBITDA include a $155 million deferred revenue adjustment.
- 2020 Adjusted Revenue and Adjusted EBITDA include a $21 million deferred revenue adjustment.
- EBITDA margins are based on Adjusted Revenue and Adjusted EBITDA which include the deferred revenue adjustments. Excluding these adjustments, the 2019 and 2020 margins would be six percentage points and one percentage point higher, respectively.

dun & bradstreet

Meeting the Moment

2021 Form 10-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

(Mark One)

☒ **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**

Commission file number 1-39361

Dun & Bradstreet Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	83-2008699
(State of incorporation)	(I.R.S. Employer Identification No.)
5335 Gate Parkway, Jacksonville, FL	32256
(Address of principal executive offices)	(Zip Code)

(904) 648-6350

(Registrant's telephone number, including area code)

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

Title of Each Class	Trading Symbol	Name of Each Exchange on Which Registered
Common Stock, $0.0001 par value	DNB	New York Stock Exchange

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

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 and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐	Non-accelerated filer	☐
Smaller reporting company	☐	Emerging growth company	☐		

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

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

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

The aggregate market value of the shares of Dun & Bradstreet Holdings, Inc. common stock held by non-affiliates of the registrant as of June 30, 2021 was $3,665,506,111 based on the closing price of $21.37 as reported by the New York Stock Exchange.

There were 431,165,887 shares outstanding of the Registrant's common stock as of February 18, 2022.

The information in Part III hereof is incorporated by reference to certain information from the registrant's definitive proxy statement for the 2022 annual meeting of shareholders. The registrant intends to file the proxy statement within 120 days after the close of the fiscal year that is the subject of this Report.

DUN & BRADSTREET HOLDINGS, INC.
FORM 10-K
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Forward-Looking Statements

Forward-looking statements included in this Annual Report on Form 10-K (this "Annual Report"), including, without limitation, statements concerning the conditions of our industry and our operations, performance and financial condition, including in particular, statements relating to our business, growth strategies, product development efforts and future expenses, can be identified by words such as “anticipates,” “intends,” “plans,” “seeks,” “believes,” “estimates,” “expects” and similar references to future periods, or by the inclusion of forecasts or projections. Examples of forward-looking statements include, but are not limited to, statements we make regarding the outlook for our future business and financial performance, such as those contained in “Management’s Discussion and Analysis of Financial Condition and Results of Operations.”

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy and other future conditions. Because forward-looking statements relate to the future, by their nature, they are subject to inherent uncertainties, risks and changes in circumstances that are difficult to predict. As a result, our actual results may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include the following:

- our ability to implement and execute our strategic plans to transform the business;
- our ability to develop or sell solutions in a timely manner or maintain client relationships;
- competition for our solutions;
- harm to our brand and reputation;
- unfavorable global economic conditions;
- risks associated with operating and expanding internationally;
- failure to prevent cybersecurity incidents or the perception that confidential information is not secure;
- failure in the integrity of our data or systems;
- system failures and personnel disruptions, which could delay the delivery of our solutions to our clients;
- loss of access to data sources or ability to transfer data across the data sources in markets we operate;
- failure of our software vendors and network and cloud providers to perform as expected or if our relationship is terminated;
- loss or diminution of one or more of our key clients, business partners or government contracts;
- dependence on strategic alliances, joint ventures and acquisitions to grow our business;
- our ability to protect our intellectual property adequately or cost-effectively;
- claims for intellectual property infringement;
- interruptions, delays or outages to subscription or payment processing platforms;
- risks related to acquiring and integrating businesses and divestitures of existing businesses;
- our ability to retain members of the senior leadership team and attract and retain skilled employees;
- compliance with governmental laws and regulations;
- risks related to the voting letter agreement among and registration and other rights held by certain of our largest shareholders;
- an outbreak of disease, global or localized health pandemic or epidemic, or the fear of such an event (such as the COVID-19 global pandemic), including the global economic uncertainty and measures taken in response; and
- the short- and long-term effects of the COVID-19 global pandemic, including the pace of recovery or any future resurgence.

See "Item 1A.—Risk Factors" for a further description of these and other factors. For the reasons described above, we caution you against relying on any forward-looking statements, which should also be read in conjunction with the other cautionary statements that are included elsewhere in this Annual Report on Form 10-K. Any forward-looking statement made by us in this Annual Report on Form 10-K speaks only as of the date on which we make it. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We are not under any obligation (and expressly disclaim any such obligation) to update or alter our forward-looking statements, whether as a result of new information, future events or otherwise. You should carefully consider the possibility that actual results may differ materially from our forward-looking statements.

Part I

Item 1. Business

Our Company

Dun & Bradstreet is a leading global provider of business decisioning data and analytics. Our mission is to deliver a global network of trust, enabling clients to transform uncertainty into confidence, risk into opportunity and potential into prosperity. Clients embed our trusted, end-to-end solutions into their daily workflows to inform commercial credit decisions, confirm suppliers and other third parties are financially viable and compliant with laws and regulations, enhance salesforce productivity and gain visibility into key markets. Our solutions support our clients' mission critical business operations by providing proprietary and curated data and analytics to help drive informed decisions and improved outcomes.

We are differentiated by the scale, depth, diversity and accuracy of our constantly expanding business database, known as our "Data Cloud," that contains comprehensive information on more than 460 million total organizations as of December 31, 2021. Access to longitudinal curated data is critical for global commerce, and with only a small percentage of the world's businesses filing public financial statements, our data is a trusted source for reliable information about both public and private businesses. By building such a set of data over time, we were able to establish a unique identifier that creates a single thread connecting related corporate entities allowing our clients to form a holistic view of an enterprise. This unique identifier, which we refer to as the D-U-N-S Number, is an organization's "fingerprint" or "Social Security Number" of businesses. We believe that we are the only scale provider to possess both worldwide commercial credit data and comprehensive public records data that are linked together by a unique identifier allowing for an accurate assessment of public and private businesses globally.

Leveraging our commercial credit data and analytics, our Finance & Risk solutions are used in the critical decisioning processes of finance, risk, compliance and procurement departments worldwide. We are a market leader in commercial credit decisioning, with many of the top businesses in the world utilizing our solutions to make informed decisions when considering extending business loans and trade credit. We are also a leading provider of data and analytics to businesses looking to analyze supplier relationships and more effectively collect outstanding receivables. We believe our proprietary Paydex score is widely relied upon as an important measure of credit health for businesses. We are well positioned to provide accessible and actionable insights and analytics that mitigate risk and uncertainty, and ultimately protect and drive increased profitability for our clients.

Our Sales & Marketing solutions combine firmographic, personal contact, intent and non-traditional, or alternative data, such as foot traffic, website usage, social media posts, online browsing activity and shipping trackers, to assist clients in optimizing their sales and marketing strategy by cleansing customer relationship management ("CRM") data and narrowing their focus and efforts on the highest probability prospects. As global competition continues to intensify, businesses need assistance with focusing their sales pipelines on the people most likely to buy so that they can have their best sellers target the highest probability return accounts. We provide invaluable insights into businesses that can help our clients grow their businesses in a more efficient and effective manner.

We leverage these differentiated capabilities to serve a broad set of clients across multiple industries and geographies. As of December 31, 2021, we have a global client base of more than 200,000, including some of the largest companies in the world. Our data and analytics support a wide range of use cases covering nearly all industry verticals, including financial services, technology, communications, government, retail, transportation and manufacturing. On January 8, 2021, we acquired Bisnode Business Information Group AB ("Bisnode") which has increased our client base across Europe, and expanded and enhanced our Data Cloud. In terms of our geographic footprint, we have an industry-leading presence in North America, an established presence in the United Kingdom, Ireland, Nordics (Sweden, Norway, Denmark and Finland), DACH (Germany, Austria and Switzerland), Central and Eastern Europe ("CEE"), Greater China and India through our majority or wholly-owned subsidiaries and a broader global presence through our Worldwide Network alliances ("WWN alliances").

We believe that we have an attractive business model that is underpinned by highly recurring, diversified revenues, significant operating leverage, low capital requirements and strong free cash flow. The proprietary and embedded nature of our data and analytics solutions and the integral role that we play in our clients' decision-making processes have translated into high client retention and revenue visibility. We also benefit from strong operating leverage given our centralized Data Cloud and solutions, which allow us to generate strong contribution margins and free cash flow.

Our Transformation

Over the course of our history, we have earned the privileged position of leadership and trust within the industries we serve. However, operational and execution issues led to stagnant revenue growth and declining profitability. Identifying an opportunity to unlock Dun & Bradstreet's potential, an investor consortium led by William P. Foley II at Bilcar, LLC ("Bilcar"), Thomas H. Lee Partners, L.P. ("THL"), Cannae Holdings, Inc. ("Cannae"), Black Knight, Inc. ("Black Knight") and CC Capital Partners, LLC ("CC Capital" and together with Bilcar, THL, Cannae and Black Knight, the "Investor Consortium"), acquired Dun & Bradstreet in the Take-Private Transaction (the "Take-Private Transaction"), as described below, in February 2019.

The Investor Consortium brought in a new senior leadership team with extensive experience and a proven track record of driving long-term shareholder value creation through transformation and growth initiatives. The senior leadership team immediately commenced a comprehensive transformation of our organization and platform with new business unit leaders, enhanced technology and data, solution innovation and a client-centric go-to-market strategy.

To capitalize on the opportunities identified, we have invested in and continue to invest in strategic initiatives that we believe will allow Dun & Bradstreet to achieve its fullest potential, including:

- *Realigning Management and Organization:* We immediately reorganized our management and operating infrastructure into vertically aligned business units to increase focus and accountability. Within each business unit, we then allocated shared corporate functions, such as analytics, data, finance, legal, marketing and communications, operations, people, sales, strategy and technology, to help better understand and drive accountability for the specific revenues and costs associated with each function.

- *Optimizing Go-to-Market and Client Service:* We reorganized our salesforce and go-to-market strategy. Our sales team separates clients into three primary tiers, Enterprise, National and small- and medium-sized businesses ("SMBs"). Enterprise clients are each managed by a designated team, many of whom work on clients' premises given the importance of strategic relationships, while National and SMB clients are managed by teams focused on specific solutions and geographies. Our sales commission plans are structured to incentivize sales of long-term contracts and the cross-selling of additional solutions rather than focusing on the annual renewal of existing contracts. From a client service perspective, we systematically track and monitor service metrics and key service performance indicators to more effectively assist our clients.

- *Simplifying and Scaling Technology:* We continue to make investments in modernizing our infrastructure and optimizing our architecture to increase control, create efficiencies and greatly enhance the ability of our platforms to scale. As part of our simplification initiative, we are rationalizing and reducing our overall physical data center footprint and are continuing to transition to a cloud-based solution. We also rationalize our legacy solutions and decommission those that are either not profitable or can be consolidated into our core solutions. We continue to re-architect our technology platform to enhance our ability to organize and process high volumes of disparate data, increase system availability and improve delivery, while lowering our overall cost structure and ensuring information security. As part of this effort, we are in the process of reorienting the delivery of all of our solutions via our centralized Prime platform, which collects the cleansed and curated data from our local and global data supply chains and is designed to feed all of our delivery mechanisms with consistent data.

- *Expanding and Enhancing Data:* We have significantly increased our investment in the breadth and depth of our data, with a focus on better utilization of available data, automation of business data research, improvement of identity resolution, expansion of our individual contact database and implementation of tools to monitor and streamline our data supply chain so that we can generate better, more actionable business insights and outcomes for our clients. We are also expanding our coverage of SMBs and incorporating new, alternative data sets to expand the breadth of companies covered and depth of information we are able to provide clients. We have implemented a data watch program to proactively monitor and repair issues before clients experience them.

- *Strengthening Analytics and Insights:* We have strengthened our analytics by leveraging our artificial intelligence ("AI") capabilities and expanded data sets and growing our analytics team. Enhanced analytics enable us to provide easy to implement end-to-end solutions that can be used by a wide range of clients, including SMBs that do not have the resources to support a full data analytics staff. By creating configurable, rather than customizable, analytics solutions, we believe that we can increase the adoption of solutions by our clients and expand the size of our client base.

On July 6, 2020, we completed an initial public offering ("IPO") of 90,047,612 shares of our common stock, par value $0.0001 per share at a public offering price of $22.00 per share. Immediately subsequent to the closing of the IPO, we also completed a private placement of 18,458,700 shares of common stock at a price per share equal to 98.5% of the IPO price, or $21.67 per share. See Note 1 to Consolidated Financial Statements in Item 8 for a more detailed discussion of the IPO and concurrent private placement.

Our Market Opportunity

Businesses rely on business-to-business ("B2B") data and analytics providers to extract data-driven insights and make better decisions. For example, in commercial lending and trade credit, the scarcity of readily available credit history makes the extension of credit a time-consuming and imprecise process. In procurement, and business development, businesses face increasingly complex and global supply chains, making the assessment of compliance, risk, and viability of all suppliers and third parties prohibitively difficult and expensive if not conducted effectively. In sales and marketing, businesses have benefited from the proliferation of CRM, Marketing Automation and Sales Acceleration tools designed to help identify, track and improve both customer management and prospecting growth activities. While these tools help to fill sales funnels and improve the progression of opportunities, key challenges remain in salesforce productivity, effective client segmentation and marketing campaign activation. Common stumbling blocks include incorrect, or outdated, contact information, duplicated or inaccurate firmographic data and a lack of synchronization between the various platforms in the marketing technology ecosystem.

We help our clients solve these mission critical business problems. We believe the total addressable market ("TAM") in which we operate is large, growing and significantly under penetrated. We participate in the big data and analytics software market, as defined by Interactive Data Corporation ("IDC"), which represents a collection of software markets that functionally address decision support and decision automation. This market includes business intelligence and analytics tools, analytic data management and integration platforms and analytics and performance management applications. Within the broader market of data and analytics solutions, we serve a number of different markets, including the commercial credit data, sales and marketing data and Governance, Risk and Compliance ("GRC") markets to provide clients with decisioning support and automation. As we continue to drive innovation in our solutions, we expect to address a greater portion of this TAM as new use cases for our data assets and analytical capabilities are introduced.

We believe there are several key trends in the global macroeconomic environment generating additional growth in our TAM and increasing the potential demand for our solutions:

- ***Growing Recognition of Analytics and Data-Informed Business Decisioning.*** Due to the pervasive digital transformation that nearly all industries are experiencing, businesses are increasingly recognizing the value of incorporating data-driven insights into their organizations. Businesses are leveraging the advancements of technology in data creation and interpretation to analyze business practices with the aim of improving efficiency, reducing risk and driving growth. We expect companies will continue to recognize the value in relying on insightful and accurate B2B data in their finance and credit decisioning, regulatory and compliance and sales and marketing workflows.

- ***Growth in Data Creation and Applications.*** As a result of the increasing recognition of data's value, the volume of data sets being collected and assembled continues to increase. Not only is the size of these data sets larger than ever, but the data being collected covers a wider range of topics and subjects. Driven in large part by the global trend of an "Internet of Things," the proliferation of mobile phones and connected devices has created a "digital exhaust" of data that can be captured and tracked. This alternative data can be incorporated in predictive models alongside traditional data to provide more sophisticated and accurate business insights. Businesses now have a massive amount of data at their fingertips but often have to rely on large scale providers to help them curate, match, append and create insights in order to convert that data into improved outcomes.

- ***Advances in Analytical Capabilities Unlocking the Value of Data.*** The combination of increasingly available data sets with effective artificial intelligence and machine learning capabilities allows for the generation of mission critical insights integrated into clients' workflows. Businesses that lack the resources for developing these complex tools and solutions internally turn to data and analytics providers, creating market demand. The availability of more insightful analytical tools, in turn, drives growing recognition of the power of analytics in everyday business processes.

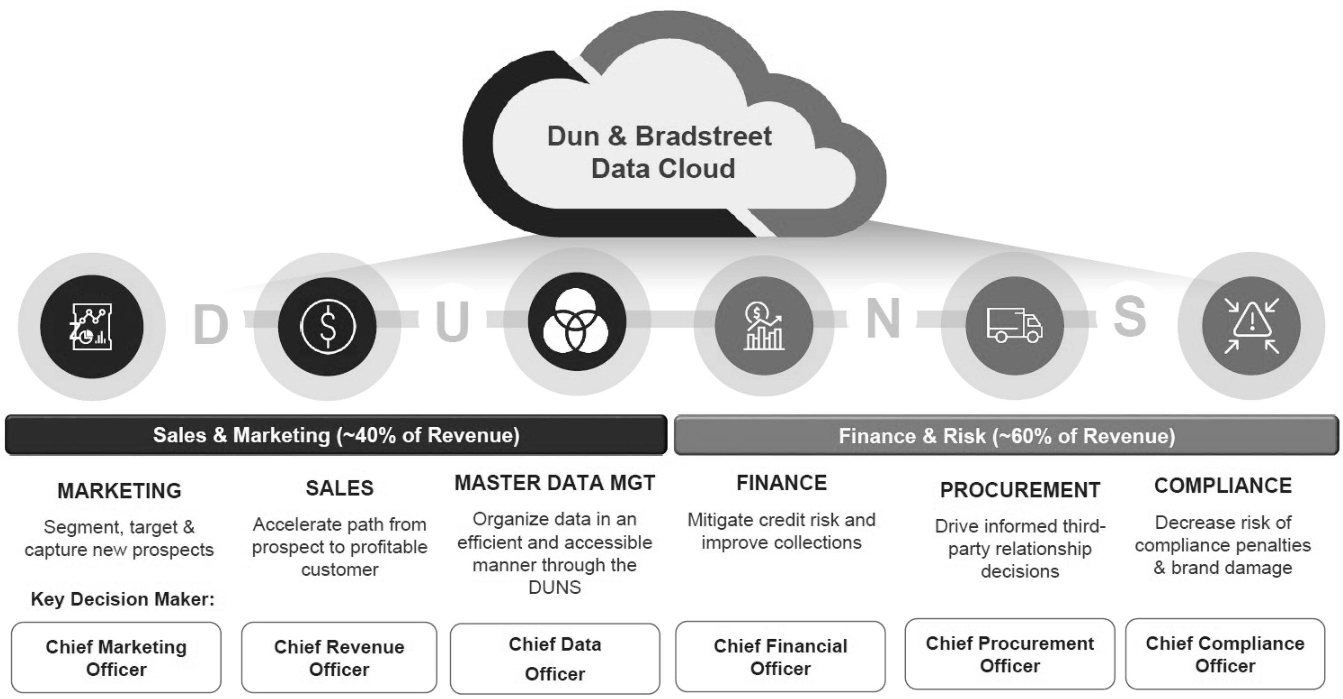
- ***Heightened Compliance Requirements in an Evolving Regulatory Environment for Business.*** Businesses today are under intense scrutiny to comply with an ever-expanding and evolving set of data regulatory requirements, which often vary by geography and industry served. Performing adequate diligence on clients and suppliers can be cumbersome and dampen the pace of business expansion, or worse, leave a business exposed to expensive fines and penalties. Regulations such as the U.S. Bank Secrecy Act and the recently announced Sixth EU Anti-Money Laundering Directive, the U.S. Department of the Treasury's Office of Foreign Assets Control's ("OFAC's") Specially Designated Nationals and Blocked Persons List and other export controls and economic sanctions requirements, the U.S. Foreign Corrupt Practices Act ("FCPA") the UK Bribery Act, and similar laws in other countries, evolving enforcement under competition and antitrust laws. as well as the U.S. Federal Sentencing Guidelines Elements of an Effective Ethics and Compliance Program and environmental, social, and governance ("ESG") disclosure rules, such as the Sustainable Finance Disclosure Regulation ("SFDR") require businesses to take the necessary steps to comply in an efficient manner. Recently, regulations such as the EU General Data Protection Regulation ("GDPR"), the California Consumer Privacy Act of 2018 ("CCPA") and the California Privacy Rights Act ("CPRA") and similar laws in other U.S. states such as Virginia and Colorado, the Brazil General Data Protection Act ("LGPD"), and the recently enacted China Personal Information Protection Law ("PIPL") and the China Data Security Law ("DSL"), and judicial decisions such as the European Court of Justice Case C-311/18 (Schrems II") have also introduced complexity into the collection, use, sharing, and transfer of data by businesses. Manual processes are burdensome and prone to human error, and therefore demand for data and analytics as a solution continues to increase.

We believe that due to our differentiated capabilities and our long-term client relationships, we are well positioned to capture this market opportunity and benefit from these long-term trends.

Our Solutions

The defining characteristic of our solutions is the breadth and depth of our combined proprietary and curated public data and actionable analytics that help drive informed decisions for our clients. As of December 31, 2021, our Data Cloud is compiled from approximately 28,000 sources, as well as from data collected by our 13 WWN alliances, resulting in data sourced from 256 countries and territories worldwide. We believe that we are uniquely able to match data to its corresponding entity, and have extensive related intellectual property dedicated to this function. Since 1963, we have tracked these businesses by assigning unique identifiers (known as a D-U-N-S Number) to all organizations in our data set. The D-U-N-S Number is recommended and, in many cases required, by over 240 commercial, trade and government organizations. This privileged position in the market has allowed us to commercialize the creation and monitoring of D-U-N-S Numbers by suppliers, which in turn feeds additional proprietary data into our platform.

Data is only valuable when it drives action that moves an organization towards its goals. Underpinned by an integrated technology platform, our solutions derive data-driven insights that help clients target, grow, collect, procure and comply. We provide clients with both curated bulk data to incorporate into their internal workflows and end-to-end solutions that generate insights from this data through configurable analytics. The chart below illustrates the comprehensive, end-to-end nature of our solutions, which are organized into two primary areas: Finance & Risk and Sales & Marketing.



Finance & Risk

Our Finance & Risk solutions are mission critical to our clients as they seek to leverage the data sets and analytics from our platform to manage risk, minimize fraud and monitor their supply chain. Top commercial enterprises across the globe utilize our configurable solutions to make better decisions when considering small business loans, extending trade credit, analyzing supplier relationships and collecting outstanding receivables. Our Finance & Risk solutions help clients increase cash flow and profitability while mitigating credit, operational and regulatory risks.

Our principal Finance & Risk solutions include:

D&B Finance Analytics, which includes D&B Credit Intelligence and D&B Receivables Intelligence, is a subscription-based online application that offers clients real time access to our most complete and up-to-date global information, comprehensive monitoring and portfolio analysis.

D&B Direct is an application programming interface ("API") that delivers risk and financial data directly into enterprise applications such as enterprise resource planning applications ("ERPs") and CRM for real-time credit decision making. The API format allows users to configure their own solutions for their organization’s needs.

D&B Small Business is a suite of powerful tools that allows SMBs to monitor and potentially build their business credit file. SMBs can review detailed reporting on all D&B scores and ratings as well as access triggered alerts for any changes in scores and custom reports with key scores and risk indicators.

D&B Enterprise Risk Assessment Manager ("eRAM") is a global solution for managing and automating credit decisioning and reporting for complex account portfolios, regardless of geography. This solution provides globally consistent data and integrates with in-house ERPs and CRMs. eRAM allows clients to access all of Dun & Bradstreet’s global scores and risk indicators for customized scoring, reporting and analytics.

InfoTorg is a subscription based online SaaS application that provides clients with detailed information on people, companies, vehicles, real estate, laws and regulations as well as court judgments. InfoTorg helps our clients solve their core everyday tasks based on verified and easy to find information. The versatility of the product enables many different use cases, e.g. Anti-Money Laundering ("AML")/Know Your Customer ("KYC") - controls in the financial industry, verification and control of individuals in the public sector as well as vehicle transactions for car dealers and workshops.

Within Finance & Risk, Risk & Compliance offers the tools and expertise to help certify, monitor, analyze and mitigate risk for clients. These solutions provide clients with supplier intelligence, enable ethical and responsible sourcing and facilitate anti-bribery, anti-corruption, and sanction management required by the FCPA, United Kingdom Bribery Act and the OFAC regulations. In addition, these solutions provide KYC and AML insights.

Our principal Risk & Compliance solutions include:

D&B Beneficial Ownership offers risk intelligence on Ultimate Beneficial Ownership from what we believe to be the world’s largest commercial database. Clients are able to view, update and monitor an organization’s hierarchy and beneficial ownership to provide clarity, efficiency and accuracy around beneficial owners. The database includes key shareholders, both individuals and corporate entities, globally.

D&B Supplier Risk Manager provides focused and predictive insights to help certify, monitor, analyze and mitigate risk across the supply chain to avoid costly disruptions. This solution offers predictive scores and government indicators to provide strategic advantage and visibility into risk management.

D&B Onboard leverages the Data Cloud to provide comprehensive insights into businesses to facilitate global KYC/AML compliance and to minimize financial, legal and reputational risk exposure. Onboard automates compliance and onboarding activities by validating identities of businesses against a global Data Cloud of over 460 million organizations to confirm accurate representation.

Sales & Marketing

Our Sales & Marketing solutions help businesses discover new revenue opportunities and accelerate growth by extending the use cases of our data and analytics platform. By adding our proprietary business data set to our personal contact, intent and non-traditional data, we are able to provide a single view of the prospective customer. Our Sales & Marketing solutions extend beyond simple contact data to enable modern marketers and sellers to automate data management and cleansing, leverage AI-powered models to build segments of high-propensity prospects, activate those segments across email, digital ads, paid media and sales plays, unmask and track website visitors and measure campaign performance. We help our clients optimize their sales and marketing functions and narrow their focus on the highest probability businesses.

Our principal Sales & Marketing solutions include:

D&B Connect is a self-service data management platform built using our proprietary AI-powered matching algorithm that provides an easy-to-use portal for managing sales and marketing data. Connect enables clients to reduce time spent on data management from weeks to hours and greatly reduces process complexity by integrating with existing workflows.

D&B Optimizer is an integrated data management solution that links clients’ first party business records in their CRMs, marketing automation and other marketing applications directly with the D&B Data Cloud and ensures continuous data hygiene and management to drive actionable commercial insights and a single client view across multiple systems and touchpoints.

D&B Direct is an API-enabled data management solutions that delivers valuable customer insights into CRMs, marketing automation and other marketing applications for on-demand business intelligence. This configurable format allows users to tailor their own solutions for their organization’s needs.

D&B Rev.Up ABX is an open and agnostic platform that aligns marketing and sales teams to deliver an optimal and coordinated buying journey for accelerated pipeline creation and progression. D&B Rev.Up ABX consolidates first and third party data, allows teams to build high-propensity targets from that data for account-based campaigns, activate target segments across leading email, advertising, and sales automation tools, engage prospects with personalized content, and measure resulting campaign performance.

D&B Audience Targeting helps clients reach the right audiences with the right messages by leveraging our digital IDs and curated pre-defined B2B audience targeting segments that span digital display, mobile, social and connected TV advertising channels. In November 2021, we acquired Eyeota Holdings Pte Ltd. (“Eyeota”), a global online and offline data onboarding and transformation company, and NetWise Data, LLC (“NetWise”), a provider of B2B and business-to-consumer identity graph and audience targeting data. We expect these acquisitions to extend our position in the B2B online marketing value chain and will build upon our Audience Solutions business by adding global scale and the online data to power omni-channel marketing around the world.

D&B Visitor Intelligence turns web visitors into leads by leveraging D&B's rich B2B data set and digital identity resolution capabilities to unmask anonymous web traffic and identify which companies and potential buyers are visiting client websites. This critical real-time visitor intelligence drives personalized web experiences, increased conversion rates with prefill web registrations and retargeting capabilities to quickly engage these new leads and accelerate the sales process.

D&B Hoovers is a sales intelligence solution that allows clients to research companies, quickly build pipelines, engage in informed conversations and enhance sales productivity. Clients are able to target companies and contacts through search filters that continually refresh based on developed criteria. Hoovers populates leading tools such as Salesforce, Microsoft Dynamics, HubSpot and Marketo records to allow clients to reduce time spent on administrative tasks and improve sales productivity.

Our Competitive Strengths

Market Leadership with the Most Comprehensive Business-to-Business Database

We are uniquely qualified to address the commercial data-driven decisioning needs of our clients due to the breadth and depth of our proprietary Data Cloud and the extensive intellectual property driving insights. Our Data Cloud includes more than 460 million organizations globally and extends far beyond those for which data is publicly available. The D-U-N-S Number is a widely recognized identifier and is a policy-driven requirement for the process of supplying trade credit for many businesses and governments. In addition to the data ingested, D&B has been awarded 243 patents, 140 of which are focused on the complex problem of mapping disparate data sources to a business entity. Our owned, proprietary data sets include commercial credit and firmographic data, professional contact data, third party regulatory compliance, receivables, payment history and other data. Our strategic relationships with our global WWN alliances provide us with international data in our global Data Cloud, which we view as a key competitive strength in serving both U.S. and international businesses. The contributory nature of our Data Cloud, where we typically obtain updated information at little or no cost and own most of the data, creates a strong network effect that we believe gives us an expanding competitive advantage over other market participants or potential entrants. Our Data Cloud is also differentiated in our ability to track corporate linkages of child-to-parent organization relationships and define universal beneficial ownership across entities to help clients better understand commercial relationships and make better informed decisions with a more holistic view of the business.

Innovative Analytics and Decisioning Capabilities Driving End-to-End Solutions

In a world of increasing data access, the value proposition for companies like ours is shifting from the provision of core data to the generation of analytical insights to inform decisioning processes and optimize workflows, across interrelated business activities. Our end-to-end solutions cover a comprehensive spectrum of use cases across the lifecycle of our clients' businesses. These use cases continue to evolve as we find additional ways to derive insights from our data. We believe our configurable solutions, in combination with our proprietary Data Cloud, are a key competitive advantage for us and allow us to effectively compete across the entire commercial data and analytics landscape.

Deep Relationships with Blue Chip Clients

With our leading data and analytical insights, we serve many of the largest enterprises in the world. Our client base is diversified across size, industry and geography and features minimal concentration. In 2021, 2020 and 2019, no client accounted for more than 5% of our revenue, and our top 50 clients accounted for approximately 25% of our revenue. We have held relationships with 21 of our top 25 clients by size of revenue for the year ended December 31, 2021, 2020 and 2019 for more than 20 years, which reflects how deeply embedded we are in their daily workflows and decisioning processes. For 2021, 2020 and 2019, our annual revenue retention rate was 96%.

Scalable and Highly Attractive Financial Profile

We have an attractive business model underpinned by stable and highly recurring revenues, significant operating leverage and low capital requirements that contribute to strong free cash flow. Our high levels of client retention and shift toward multi-year subscription contracts result in a high degree of revenue visibility. The vast majority of our revenues are either recurring or re-occurring in nature. Additionally, we benefit from natural operating leverage given the high contribution margins associated with incremental revenue generated from our centralized Data Cloud and solutions. Despite the investments being made to enhance our technology, analytics and data, our capital requirements remain minimal with capital expenditures (including capitalized software development costs) of approximately 8% of our revenues in 2021, excluding the one-time purchase of our new headquarters location in Jacksonville Florida. All of these factors contribute to strong free cash flow generation, allowing us the financial flexibility to invest in the business and pursue growth through acquisitions.

World Class Management Team with Depth of Experience and Track Record of Success

Our senior management team has a track record of strong performance and significant expertise in both the markets we serve and in transforming similar businesses by delivering consistent growth both organically and through acquiring and integrating businesses. Our management team operates under the leadership of Mr. Foley, who has a long, successful history of acquiring, reorganizing and transforming companies by rationalizing cost structures, investing in growth and onboarding and mentoring senior management. Beyond our senior management team, we are focused on attracting and retaining the strongest talent at all levels throughout the organization.

Our Growth Strategy

Enhance Existing Client Relationships

We believe our current client base presents a large opportunity for growth through enhanced cross selling in order to capture more of our clients' data and analytics spend. As an end-to-end provider of commercial data and analytics, we believe that there are significant opportunities to have clients buy from a consistent, single-source provider and to increase their interaction with our platform. Our go-to-market strategy enables us to increase the number of touchpoints with key decision makers within any given client and allows us to identify and sell the right solutions to each decision maker's respective department. By focusing on enhancing the quality of our data and analytics, we will be able to produce more valuable insights, increasing client engagement across our existing solutions and driving clients towards new, innovative solutions.

Win New Clients in Targeted Markets

We believe that there is substantial opportunity to grow our client base. While we have significant market share in the enterprise and mid-market, there continues to be opportunity to win new clients. There are several instances where we have built a successful long-term enterprise client relationship with a particular company, but its competitors are not our clients. Our focus is to leverage our best practices from serving one company and articulate the value to similar companies that may benefit from our solutions and experience.

We also believe there is significant opportunity to expand our presence in the SMB market. We currently serve approximately 90,000 SMB clients out of the millions of businesses within the global marketplace. In addition, we are servicing over 1,000 businesses a day on average that seek our solutions and D-U-N-S Number and have over 1,500,000 businesses leveraging our business credit and insights. We have existing relationships with many SMBs through solutions enabling the proactive monitoring of their D-U-N-S Number. However, we have not historically capitalized on the opportunity to cross-sell them into our solutions. In 2021 we launched our D&B Marketplace, an integrated web platform that provides businesses with an introduction to Dun & Bradstreet's capabilities and solutions for their potential use, and digital advertising solutions that enable enterprises to target their offers to our SMB audiences. By leveraging this go-to-market channel and offering more simplified solutions that are easily integrated into client workflows, we can continue to expand our reach among SMBs.

Develop Innovative Solutions

Given the depth and coverage of information contained in our proprietary Data Cloud, we believe we can continue to develop differentiated solutions to serve our clients in an increasing number of use cases. As we continue to gather and incorporate additional sources of data, we believe the resulting analytics and insights we are able to provide within our solutions will be increasingly impactful to our clients and their decisioning processes. By improving the quality and breadth of our Data Cloud, we will be able to expand into adjacent use cases and leverage our data insights in new functional areas such as collections, fraud and capital markets. We will also be able to identify and further penetrate attractive addressable markets, as demonstrated by the development of our Risk & Compliance solutions, a high growth area within our Finance & Risk solutions, in order to better address the GRC market. These additional solutions utilize existing data architecture to generate high contribution incremental revenue streams.

The most recent example of innovative application of the D&B Data Cloud was the rapid development of our AI-driven D&B ESG Intelligence capability using patent-pending technology. Our ESG scores are derived by applying established sustainability standards ("SASB") to companies using our Data Cloud. Given the breadth and depth of the Data Cloud, this deployment immediately moved D&B into a leader role within the ESG score provider industry, making available approximately 20 million ESG scores derived directly from an objective data set. This comprehensive source of ESG data enables compliance and procurement teams to protect company reputation, benchmark against industry trends, identify ESG risks and goals, monitor shifting ESG risks through automated approaches, and streamline ESG assessment processes.

Expand Our Presence in Attractive International Markets

Despite our global presence and industry leading position in the North American market, we remain relatively under-penetrated in international markets, with International revenue accounting for approximately a third of our business in 2021. We believe that expanding our presence in owned international markets can be a significant growth driver for us in the coming years. Our international growth strategy begins with localizing current solutions to meet global demand and, similar to our domestic strategy, includes a focus on cross-selling and upselling, winning new clients and developing innovative solutions. On January 8, 2021, we acquired Bisnode, a leading European data and analytics firm, which positioned us to rapidly expand our client base across the Nordics, DACH and CEE markets.

Selectively Pursue Strategic Acquisitions

While the core focus of our strategy is to grow organically, we believe there are strategic acquisition opportunities that may allow us to expand our footprint, broaden our client base, increase the breadth and depth of our data sets and further strengthen our solutions. We believe there are attractive synergies that result from acquiring small companies that provide innovative solutions and integrating these solutions into our existing offerings to generate cross-selling and upselling opportunities across our existing client base. Our leadership team has a proven track record of identifying, acquiring and integrating companies to drive long-term value creation, and we will continue to maintain a disciplined approach to pursuing acquisitions.

The most recent example of expanding our solution set inorganically is our simultaneous acquisitions of Eyeota and NetWise. D&B's Sales and Marketing Solutions have been providing off-line data to enrich and enable digital marketing campaigns for many years. Through these acquisitions D&B simplifies the process our clients execute to segment, target and activate ad campaigns. Importantly, these acquisitions position D&B for the post-cookie world as expanding privacy regulations impose greater restrictions on the use of third-party data as well as third-party data sharing.

Our Clients

We have a diversified client base with more than 200,000 clients worldwide during 2021.

Our client base is diversified across size, industry and geography, and features minimal concentration; with no client accounting for more than 5% of revenue and our top 50 clients accounting for approximately 25% of revenue. Our clients include enterprises across nearly all industry verticals, including financial services, technology, communications, retail, transportation and manufacturing, and our data and analytics support use cases of all types. A substantial portion of our revenue is derived from companies in the financial services industry. We have held relationships with 21 of our top 25 clients by size of revenue for the year ended December 31, 2021 for more than 20 years, which reflects how deeply embedded we are in their daily workflows and decisioning processes. For 2021, our annual revenue retention rate, reflecting the percentage of prior year revenue from clients who were retained in the current year, was 96%.

In addition to our blue chip corporate client base, we serve a number of government organizations. Through the development of our analytics, we continue to move into mission critical functions with higher applicability across federal, state and local government organizations.

We have a presence in 256 countries and territories, including the United States, Canada, the United Kingdom, Ireland, Nordics, DACH, CEE, Greater China and India as of December 31, 2021. Our international presence is organized through the WWN alliances and owned markets. The following table presents the contribution by geography to revenue, which excludes Corporate and other:

	Year Ended December 31,		
	2021	**2020**	**2019**
Revenue by geography			
North America	69 %	83 %	83 %
International	31 %	17 %	17 %

Go-to-Market Organization

Our sales and marketing efforts are focused on both generating new clients as well as cross-selling and upselling our end-to-end solutions to existing clients. Our salesforce is segmented into three distinct categories: strategic sales, field sales and inside sales. To more effectively align our salesforce with our clients, we have also organized these distribution channels into geographic territories supported by specialized sales support and centralized sales development teams.

Our strategic sales team covers our largest and most sophisticated clients who typically use multiple D&B solutions across a variety of use cases. These strategic clients are each independently managed by directors who own the client relationship and are equipped to sell all solutions. In many instances, we deploy our employees on-site to assist our clients in implementing and configuring our analytics for various use cases, acting as a "one-stop shop" for our clients' data and analytics needs.

Our field sales team is geographically distributed and promotes both our Finance & Risk solutions and Sales & Marketing solutions, largely targeting clients with revenues in excess of $250 million. Clients in this grouping typically buy only one of our solutions, and there is ample opportunity to expand the depth of our relationships as we continue to educate and train our sales professionals on selling our full suite of solutions.

Lastly, our inside sales team is focused on all other businesses that are not covered by our other direct sales channels in the emerging and micro business segments. Our specialized sales support and subject matter experts are consolidated in a shared services organization and support all channels as needed. In addition, we are building a sales development representative organization that supports lead generation of our sales teams.

In addition to our direct go-to-market efforts, we also sell through our network of strategic alliances to jointly deliver our data and analytics to our mutual clients. This indirect channel is centrally managed collaboratively within the sales organization and also has responsibility for coordinating all global WWN and owned markets to ensure consistency of approach and account management for our global clients.

Given the breadth of our end-to-end solutions and increased focus on cross-selling, we have spent considerable time training and upskilling our salesforce in a formal sales training program. We now require sales certifications from our salesforce and have instituted talent assessments and mid-year performance check-ins to ensure we continue to shape our culture to winning and accountability.

We have also redesigned our sales compensation plans to incentivize multi-year contracting and cross-selling rather than one-year deals that are renewed each year.

International Presence

We have operated internationally for over 160 years and benefit from an extensive network and strong global brand recognition. We have an operating framework of owned, majority-controlled and partnered markets that serve international clients and secure critical global data to support both our United States and international clients. Across all international markets, we leverage our unique data sets and solutions to serve our clients’ Finance & Risk and Sales & Marketing needs.

There are certain key international markets in which we operate independently or through joint ventures, including the United Kingdom, Ireland, Nordics, DACH, CEE, Greater China and India. As we continue to provide international companies with our best-in-class data on U.S. companies, suppliers and prospects, our solutions have also increasingly become localized in recent years to better serve foreign markets. Our local presence ensures the complete, timely and accurate collection of commercial information.

In addition, as of December 31, 2021, we also operated through 13 WWN alliances. Our partners license our data as well as our trademarks and brand, to serve local markets that Dun & Bradstreet does not have direct ownership. Our extensive international network enables millions of executives around the world to make confident business decisions with reliable and accessible information. Our strategic relationships with our global WWN alliances provide us with best-in-class breadth of international data in our Data Cloud, which we view as a key competitive strength in serving international enterprises. This approach has improved the applicability of our data to local clients, while enlarging and strengthening the data sets for clients in all geographies.

Competition

We primarily compete on the basis of differentiated data sets, analytical capabilities, solutions, client relationships, innovation and price. We believe that we compete favorably in each of these categories across both our Finance & Risk and Sales & Marketing solutions. Our competitors vary based on the client size and geographical market that our solutions cover.

For our Finance & Risk solutions, our competition generally varies by client size between enterprise, mid-market and SMBs. Dun & Bradstreet has a leading presence in the enterprise market as clients place a high degree of value on our best-in-class commercial credit database to inform their critical decisions around the extension of credit. Dun & Bradstreet’s main competitors in the enterprise and mid-market include Bureau van Dijk (owned by Moody’s Corporation), Experian and Creditsafe in Europe and Experian and Equifax in North America. In the SMB market, commercial credit health becomes increasingly tied to consumer credit health. Our competition in this market generally includes Equifax, Experian and other consumer credit providers that offer commercial data. Additionally, there is a fragmented tail of low cost, vertical and regionally focused point solutions in this market that may be attractive to certain clients but lack the scale and coverage breadth to compete holistically.

For our Sales & Marketing solutions, our competition has historically been very fragmented with many players offering varying levels of data quantity and quality, and with data being collected in ways that may cross ethical and privacy boundaries. Dun & Bradstreet strives to protect the data and privacy of clients and other constituents and to maintain high standards of integrity and accountability in the ethical acquisition, aggregation, curation and delivery of data. Our direct competitors vary depending on use cases, such as market segmentation, digital marketing lead generation, lead enrichment, sales effectiveness and data management. In the market for professional contact data, our competition generally includes ZoomInfo and a few consultancies building bespoke solutions. For other sales and marketing solutions such as customer data platform, visitor intelligence, audience targeting and intent data, we face a number of smaller competitors.

Overall, outside North America, the competitive environment varies by region and country, and can be significantly impacted by the legislative actions of local governments, availability of data and local business preferences.

In the United Kingdom and Ireland, our direct competition for our Finance & Risk solutions is primarily from Bureau van Dijk, Creditsafe and Experian. Additionally, the Sales & Marketing solutions landscape in these markets is both localized and fragmented, where numerous local players of varying sizes compete for business.

In the Nordics, we primarily compete with Enento and Experian and in Central and Eastern European markets we compete with several regional and local players.

In Asia Pacific, we face competition in our Finance & Risk solutions from a mix of local and global providers. In China we primarily compete with global providers such as Experian and Bureau van Dijk, as well as technology driven local players focusing on domestic data. In India we compete with local competitors. In addition, as in the United Kingdom, the Sales & Marketing solutions landscape throughout Asia is localized and fragmented.

We believe that the solutions we provide to our clients in all geographies reflect our deep understanding of our clients' businesses, the differentiated nature of our data and the quality of our analytics and decisioning capabilities. The integration of our solutions into our clients' mission critical workflows helps to ensure long-lasting relationships, efficiency and continuous improvement.

Technology

Technology is key to how we efficiently collect, curate and ultimately deliver our data, actionable analytics and business insights to make investments in modernizing our infrastructure and optimizing our architecture to increase control, create efficiencies and greatly enhance the ability of our platforms to scale. We make investments in the re-architecture of our technology platform to enhance our ability to organize and process high volumes of disparate data, increase system availability and improve delivery, while lowering our overall cost structure and ensuring information security. We continue to work towards evolving Dun & Bradstreet into a platform with the ability to seamlessly add and integrate new data sets and analytical capabilities into our simplified and scaled technology infrastructure.

Intellectual Property

We own and control various intellectual property rights, such as trade secrets, confidential information, trademarks, service marks, trade names, copyrights, patents and applications to the foregoing. These rights, in the aggregate, are of material importance to our business. We also believe that the Dun & Bradstreet name and related trade names, marks and logos are of material importance to our business. We are licensed to use certain technology and other intellectual property rights owned and controlled by others, and other companies are licensed to use certain technology and other intellectual property rights owned and controlled by us. We consider our trademarks, service marks, databases, software, analytics, algorithms, inventions and other intellectual property to be proprietary, and we rely on a combination of statutory (e.g., copyright, trademark, trade secret, patent, etc.) and contractual safeguards for protecting them throughout the world.

We own patents and have filed for patent applications both in the United States and in other selected countries of importance to us. The patents and patent applications include claims which pertain to certain technologies and inventions which we have determined are proprietary and warrant patent protection. We believe that the protection of our innovative technology and inventions, such as our proprietary methods for data curation and identity resolution, through the filing of patent applications, is a prudent business strategy. Filing of these patent applications may or may not provide us with a dominant position in the fields of technology. However, these patents and/or patent applications may provide us with legal defenses should subsequent patents in these fields be issued to third-parties and later asserted against us. An important aspect of our intellectual property strategy is to file for patents in innovative and modern technology spaces. For example, our application for a "System and Method for Identity Resolution across Disparate Distributed Immutable Ledger Networks" in the blockchain space was granted in December 2021 in Canada. In the United States, our patent detailing a "System and Method for Assessing and Optimizing Master Data Maturity" was granted in May 2021. Where appropriate, we may also consider asserting, or cross-licensing, our patents.

Corporate Social Responsibility

We firmly believe a defining quality of successful companies is that they demonstrate a consistent commitment to empowering the people and communities where they operate. We believe in having a positive impact through responsible engagement on environmental, social, and governance issues.

Our company culture provides a foundation that lets us commit to fostering social and economic development and contributing to the sustainability of the communities in which we all live and operate. We look at responsibility from several dimensions— how we support and empower our employees, the way we focus on helping our clients and the way we manage our corporation—all aligned with our core value of inherent generosity.

We are committed to fostering a workplace where everyone's voice is valuable and diversity in all its forms is welcomed. In 2021, Dun & Bradstreet received a 100% score on the Human Rights Campaign Corporate Equality Index for LGBTQ Equality, an award the company has earned consecutively since 2017. We also earned a 100% score on the Disability Equality Index Best Places to Work for Disability Inclusion in 2021.

We seek to be a steward of the global environment and actively shape sustainable futures in the communities where we work and live. We use our data and analytics to help companies grow their business and become better global corporate citizens.

Workforce and Human Capital Resources

As of December 31, 2021, we had 6,296 employees worldwide, of whom 2,731 were in our North America segment and Corporate, and 3,565 were in our International segment. Our workforce also engages third-party consultants as an ongoing part of our business where appropriate. There are no unions in our U.S. or Canadian operations, and work councils and trade unions represent a portion of our employees in a few European markets. We have not experienced any work stoppages and we believe we maintain strong relations with our employees.

We are committed to creating a passionate, outside-in, forward-leaning culture. We want Dun & Bradstreet to be the best place to work and one that attracts and retains the very best talent. We strive to make our company a diverse, inclusive and safe workplace that will drive personal growth for each of our employees. We design our human resources programs to support these critical objectives. We provide a comprehensive compensation and benefits package designed to support our employees, both at home and at work. We provide learning and development programs for our people to prepare them for their roles and facilitate internal career mobility aiming at creating a high-performing workforce. Our diversity and inclusion programs further enhance our culture with the goal of making our workplace more engaging and inclusive. Our "Corporate Citizenship / Do Good" program is designed to give back to our communities where we live and work, and to support worthy causes around the world. This program further enhances the interaction of our employees at all levels.

In our continued response to the COVID-19 pandemic, we implemented operational changes with the primary objective of safety for our employees, as well as the communities in which we operate, and to comply with government regulations. We have adopted a distributed workforce model, including a long-term, full-time work from home arrangement for some employees, while implementing additional safety measures for employees and contractors continuing essential and critical on-site work.

Financial Information by Segment

In addition to our two reportable segments, we have a corporate organization that consists primarily of general and administrative expenses that are not included in the other segments. For financial information by reporting segment, see Note 18 to the Consolidated Financial Statements.

Regulatory Matters

Compliance with legal and regulatory requirements is a top priority for us. This includes compliance, to the extent applicable, with national and local anti-bribery and anti-corruption laws, information privacy, communications privacy, and data protection laws and regulations, data security and cybersecurity laws, unfair and deceptive trade practices laws, export control and economic sanctions laws, antitrust/competition laws national laws regulating enterprise credit reporting agencies and, in a few cases internationally, consumer reporting agencies, and digital accessibility and advertising laws. These laws are enforced by national and local regulatory agencies, and in some instances also through private civil litigation.

We proactively manage our compliance with laws and regulations through a dedicated legal and compliance and ethics team situated in the United States, the United Kingdom, Nordics, Central Europe, Greater China and India all reporting to the Chief Legal Officer and Chief Compliance Officer in the United States. Through the legal and compliance and ethics functions, we operate a comprehensive compliance and ethics program aligned with the U.S. Federal Sentencing Guidelines Elements of an Effective Compliance and Ethics Program, the OECD Good Practices Guidance on Internal Controls, Ethics, and Compliance, the OECD Guidelines Governing the Protection of Privacy and Transborder Flows of Personal Data, and the accountability principle of the GDPR. Based on an holistic program model integrating these frameworks, we undertake compliance risk assessments, promulgate compliance policies and procedures, provide awareness and training to our teams and associates, maintain and strive to continually improve upon compliance program operations, monitor all material laws and regulations applicable to our business, oversee, monitor and audit the efficacy of our internal compliance-related controls, evaluate the compliance and regulatory risks of the suppliers and other third parties we engage, advise on and assist in the development of new products and services, and meet as necessary and appropriate with regulators and legislators to establish transparency of our operations and create a means to understand and respond should any issues arise.

Data and Privacy Protection and Regulation

Our operations are subject to applicable national and local laws that regulate privacy, data and cyber security, broader data collection, use and sharing, cross-border data transfers and/or business, and in certain cases internationally, consumer credit reporting. These laws impact, among other things. data collection, usage, storage, transparency, security and breach, dissemination (including transfer to third parties and cross-border), individual rights management, retention and destruction. Certain of these laws provide for civil and criminal penalties for violations. Expansion into new use cases for personal information and growth through acquisitions, such as Bisnode and Eyeota, adds a further layer of complexity to our overall obligations under these laws, including new obligations relating to certain categories of consumer data. The laws and regulations that affect our business include, but are not limited to:

- the GDPR, the ePrivacy Directive and implementing national legislation, and judicial and regulatory developments on the EU and national level, including the recent Schrems II decision and EDPB guidance;
- U.S. federal, state and local data protections laws such as the Federal Trade Commission Act ("FTC Act") and similar state laws, state data breach laws and state privacy laws, such as the CCPA, the recently adopted Virginia Consumer Data Protection Act ("CDPA") and the Colorado Privacy Act ("CPA");
- China's Cybersecurity Law and the newly passed China Personal Information Protection Law ("PIPL") and Data Security Law ("DSL"), as well as other civil and criminal laws relating to data protection;
- other international data protection, data localization, and state secret laws impacting us or our data suppliers;
- oversight by regulatory authorities for engaging in business credit reporting such as the U.K. Financial Conduct Authority and People's Bank of China; and
- Canadian Federal and provincial privacy laws, such as PIPEDA and CASL.

We are also subject to federal and state laws impacting marketing such as the Americans with Disabilities Act, the Telephone Consumer Protection Act of 1991 and state unfair or deceptive practices acts and telemarketing laws.

These laws and regulations, which generally are designed to protect the privacy of the public and to prevent the misuse of personal information available in the marketplace, are complex, change frequently and have consistently trended towards becoming more stringent over time. We already incur significant expenses in our attempt to ensure compliance with these laws. Currently, public concern is high with regard to the operation of credit reporting agencies in the United States, as well as the collection, use, accuracy, correction. sharing and cross border transfers of personal information, especially any personal information that may be deemed as sensitive, such as U.S. Social Security numbers, dates of birth, financial information, medical information, department of motor vehicle data, behavioral data, and data related to ethnicity, political, religious or philosophical beliefs, sexual orientation and genetic, biometric and health data. In addition, many consumer advocates, privacy advocates, legislatures and government regulators believe that existing laws and regulations do not adequately protect privacy and personal data in light of evolving technologies and data uses and have become increasingly concerned about the need for expanded oversight for the processing, generation, handling, and security of such data. As a result, they are lobbying and advocating for further restrictions, transparency, and accountability for the dissemination or commercial use of personal information to the public and private sectors. Additional legislative or regulatory efforts in the United States and other jurisdictions globally could further regulate the collection, use, communication, access, accuracy, obsolescence, sharing, cross border transfer, correction, security and rights of individuals and entities related to this personal information. In addition, any perception that our practices or products are an invasion of privacy, whether or not consistent with current or future regulations and industry practices, may subject us to public criticism, private class actions, reputational harm, or claims by regulators, which could disrupt our business and expose us to increased liability. Further developments in the area of data subject rights, including broad rights around data access, correction, deletion and erasure, portability, restriction, and objection may incur additional costs to the Company as we continue to refine operational and technical controls to meet our expanding legal obligations.

Additional Information

Our website address is www.dnb.com. We make available free of charge on or through our website our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act as soon as reasonably practicable after such material is electronically filed with or furnished to the Securities and Exchange Commission ("SEC"). Information regarding our ESG, corporate responsibility and sustainability initiatives is also available on our website at https://investor.dnb.com/governance/Corporate-Social-Sustainability-Report/default.aspx. However, the information found on our website is not part of this or any other report.

Item 1A. Risk Factors

You should carefully consider the following risk factors and all of the information contained in this Annual Report on Form 10-K. If any of the following risks occur, our business, financial condition and results of operations could be materially and adversely affected.

Our operations and financial results are subject to various risks and uncertainties, including but not limited to those described below, which could harm our business, reputation, financial condition, and operating results. Below is a summary of these risk factors followed by the detailed risk factors:

Operational Risks

- Our ability to implement and execute our strategic plans to transform the business may not be successful and, accordingly, we may not be successful in achieving our goals to transform our business, which could have a material adverse effect on our business, financial condition and results of operations.
- If we are unable to develop or sell solutions in a timely manner or maintain and enhance our existing client relationships, our ability to maintain or increase our revenue could be adversely affected.
- We face significant competition for our solutions, which may increase as we expand our business.
- Our brand and reputation are key assets and a competitive advantage, and our business may be affected by how we are perceived in the marketplace.
- Our international operations and our ability to expand our operations outside the United States are subject to economic, political and other inherent risks.
- Data security and integrity are critically important to our business, and cybersecurity incidents, including cyberattacks, breaches of security, unauthorized access to or disclosure of confidential information, business disruption, or the perception that confidential information is not secure, could result in a material loss of business, regulatory enforcement, substantial legal liability and/or significant harm to our reputation.
- A failure in the integrity of our data or the systems upon which we rely could harm our brand and result in a loss of sales and an increase in legal claims.
- If we experience system failures, personnel disruptions or capacity constraints, the delivery of our solutions to our clients could be delayed or interrupted, which could harm our business and reputation and result in the loss of revenues or clients.
- We could lose our access to data sources or ability to transfer data across the data sources in markets we operate, which could prevent us from providing our solutions.
- We use software vendors and network and cloud providers in our business and if they cannot deliver or perform as expected or if our relationships with them are terminated or otherwise change it could have a material adverse effect on our business, financial condition and results of operations.
- We rely on our relationships with key long-term clients, business partners and government contracts for a substantial part of our revenue, the diminution or termination of which could have a material adverse effect on our business, financial condition and results of operations.
- We depend, in part, on strategic alliances, joint ventures and acquisitions to grow our business. If we are unable to make strategic acquisitions and develop and maintain these strategic alliances and joint ventures, our growth may be adversely affected.
- We are subject to subscription and payment processing risk from our third-party vendors and any disruption to such processing systems could have a material adverse effect on our business, financial condition and results of operations.

Legal and Regulatory Risks

- We may be unable to protect our intellectual property adequately or cost-effectively, which may cause us to lose market share or force us to reduce our prices. We also rely on trade secrets and other forms of unpatented intellectual property that may be difficult to protect.
- We may face claims for intellectual property infringement, which could subject us to monetary damages or limit us in using some of our technologies or providing certain solutions.
- We are subject to various governmental regulations, laws and orders, compliance with which may cause us to incur significant expenses or reduce the availability or effectiveness of our solutions, and the failure to comply with which could subject us to civil or criminal penalties or other liabilities.
- Current and future litigation, investigations or other actions against us could be costly and time consuming to defend.
- If we experience changes in tax laws or adverse outcomes resulting from examination of our tax returns, it could have a material adverse effect on our business, financial condition and results of operations.

Financial Risks

- We have recorded a substantial amount of goodwill as a result of the Take-Private Transaction, and an economic downturn could cause the goodwill to become impaired, requiring write-downs that could have a material adverse effect on our business, financial condition and results of operations.

- Our pension plans are subject to financial market risks that could have a material adverse effect on our business, financial condition and results of operations.
- Our substantial indebtedness could have a material adverse effect on our financial condition and our ability to operate our business or react to changes in the economy or our industry, prevent us from fulfilling our obligations and could divert our cash flow from operations for debt payments.
- Despite our indebtedness levels, we and our subsidiaries may still be able to incur substantially more debt, which could further exacerbate the risks associated with our substantial leverage.
- We may be unable to service our indebtedness.
- The agreements governing our indebtedness impose significant operating and financial restrictions on us, which may restrict our ability to pursue our business strategies and capitalize on business opportunities.
- A decline in our operating results or available cash could cause us to experience difficulties in complying with covenants contained in more than one agreement, which could result in bankruptcy or liquidation.
- Change in credit ratings, increases in interest rates, or volatility in the U.S. and global financial markets could impede access to, or increase the cost of, financing our operations and investments.

Risks Related to Our Company Structure

- Certain of our executive officers and directors have or will have interests and positions that could present potential conflicts and demands on their time.
- Future sales of our common stock in the public market could cause the market price of our common stock to decrease significantly.
- We do not intend to pay dividends for the foreseeable future.
- Members of the Investor Consortium are party to a letter agreement pursuant to which they have agreed for a period of three years to vote all of their shares as a group in all matters related to the election of directors, including to elect five individuals to our board of directors, and it is possible the interests of the Investor Consortium may conflict with the interests of our other shareholders.
- Our Investor Consortium can significantly influence our business and affairs and may have conflicts of interest with us in the future.
- Anti-takeover protections in our amended and restated certificate of incorporation, our amended and restated bylaws or our contractual obligations may discourage or prevent a takeover of our company, even if an acquisition would be beneficial to our stockholders.
- Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees, agents or other stockholders.

General Risks

- Unfavorable global economic conditions could have a material adverse effect on our business, financial condition and results of operations.
- An outbreak of disease, global or localized health pandemic or epidemic or a similar public health threat, or the fear of such an event, could have a material adverse effect on our business, financial condition and results operations.
- When we engage in acquisitions, investments in new businesses or divestitures of existing businesses, we will face risks that could have a material adverse effect on our business, financial condition and results of operations.
- We are subject to losses from risks for which we do not insure.
- Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.
- We may not be able to attract and retain the skilled employees that we need to support our business.
- Our senior leadership team is critical to our continued success, and the loss of such personnel could have a material adverse effect on our business, financial condition and results of operations.
- Certain estimates of market opportunity, forecasts of market growth and our operating metrics included in this Form 10-K may prove to be inaccurate.
- The price of our common stock may be volatile and you could lose all or part of your investment.
- If securities or industry analysts do not publish research or reports about our business or publish inaccurate or negative reports, our stock price could decline.
- As a public company, we may expend additional time and resources to comply with rules and regulations, and failure to comply with such rules may lead investors to lose confidence in our financial data.

Operational Risks

Our ability to implement and execute our strategic plans to transform the business may not be successful and, accordingly, we may not be successful in achieving our goals to transform our business, which could have a material adverse effect on our business, financial condition and results of operations.

We may not be successful in developing and implementing our strategic plans to transform our businesses, including realigning management, simplifying and scaling technology, expanding and enhancing data and optimizing our client services.

If the development or implementation of our plans are not successful, we may not produce the revenue, margins, earnings or synergies that we expect, including offsetting the impact of adverse economic conditions that may exist currently or develop in the future. We may also face delays or difficulties in implementing technological, organizational and operational improvements, including our plans to leverage our data insights in new functional areas and utilize existing data architecture to generate high contribution incremental revenue streams, which could adversely affect our ability to successfully compete. In addition, the costs associated with implementing such plans may be more than anticipated and we may not have sufficient financial resources to fund all of the desired or necessary investments required in connection with our plans. The existing and future execution of our strategic and operating plans to transform our business will, to some extent, also be dependent on external factors that we cannot control. In addition, these strategic and operational plans need to be continually reassessed to meet the challenges and needs of our business in order for us to remain competitive. The failure to implement and execute our strategic and operating plans in a timely manner or at all, realize or maintain the cost savings or other benefits or improvements associated with such plans, have financial resources to fund the costs associated with such plans or incur costs in excess of anticipated amounts, or sufficiently assess and reassess these plans could have a material adverse effect on our business, financial condition and results of operations.

If we are unable to develop or sell solutions in a timely manner or maintain and enhance our existing client relationships, our ability to maintain or increase our revenue could be adversely affected.

In order to keep pace with client demands for increasingly sophisticated solutions, to sustain expansion into growth industries and new markets and to maintain and grow our revenue, we must continue to innovate and introduce new solutions. The process of developing new solutions is complex and uncertain. Our industry solutions require extensive experience and knowledge from within the relevant industry. We must commit significant resources before knowing whether clients will accept new solutions. We may not be successful because of a variety of challenges, including planning or timing, technical hurdles, difficulty in predicting market demand, changes in regulation or a lack of appropriate resources. Additionally, even if we successfully develop new solutions, our existing clients might not accept these new solutions or new clients might not adopt our solutions due to operational constraints, high switching costs or general lack of market readiness.

Furthermore, our ability to increase revenue will depend, in large part, on our ability to retain and enhance existing client relationships and increase the number of solutions our clients buy from us. Our ability to increase sales to existing clients depends on the quality of our data and solutions, clients' satisfaction with our solutions and their desire for additional solutions.

Failure to successfully develop and introduce new solutions or sell new or additional solutions to new or existing clients could have a material adverse effect on our business, financial condition and results of operations.

We face significant competition for our solutions, which may increase as we expand our business.

We face significant competition for our solutions. We compete on the basis of differentiated solutions, datasets, analytics capabilities, ease of integration with our clients' technology, stability of services, client relationships, innovation and price. Our global and regional competitors vary in size, financial and technical capability, and in the scope of the products and services they offer. Some of our competitors may be better positioned to develop, promote and sell their products and services. Larger competitors may benefit from greater cost efficiencies and may be able to win business simply based on pricing. Our competitors may also be able to respond to opportunities before we do, by taking advantage of new technologies, changes in client requirements or market trends. In addition, we face competition from non-traditional and free data sources.

Many of our competitors have extensive client relationships, including relationships with our current and potential clients. New competitors, or alliances among competitors, may emerge and gain significant market share. Existing or new competitors may develop products and services that are superior to our solutions or that achieve greater acceptance than our solutions. If we are unable to respond to changes in client requirements as quickly and effectively as our competition, our ability to expand our business and sell our solutions may be adversely affected.

Additionally, our competitors often sell services at lower prices than us, individually or as part of integrated suites of several related services. This may cause our clients to purchase from our competitors rather than from us, which could result in reduced prices for certain solutions or the loss of clients. Price reductions by our competitors could also negatively impact our operating margins or harm our ability to obtain new long-term contracts or renewals of existing contracts on favorable terms. Additionally, some of our clients may develop their own solutions that replace the solutions they currently purchase from us or look to new technologies, which could result in lower revenue.

We believe that our D-U-N-S Number and our ability to link our data together with this unique identifier provides us with a strategic advantage by allowing for a global, end-to-end assessment of businesses throughout the world. However, some of our competitors and clients utilize their own unique identifiers, and clients have and may continue to adopt alternative standards to our D-U-N-S Number and stop using our solutions. For example, the General Services Administration announced in 2019 that it plans to transition from the D-U-N-S Number to a government-owned entity number for federal contractors and grantees. In addition, public and commercial sources of free or relatively inexpensive business information have become increasingly available and this trend is expected to continue. To the extent the availability of free or relatively inexpensive business information increases, the demand for some of our solutions may decrease. If more clients adopt alternative standards to the D-

U-N-S Number or look to these other sources of data, it could have a material adverse effect on our business, financial condition and results of operations.

We also expect that there will be significant competition as we expand our business, and we may not be able to compete effectively against current and future competitors. If we are unable to compete successfully, it could have a material adverse effect on our business, financial condition and results of operations.

Our brand and reputation are key assets and a competitive advantage, and our business may be affected by how we are perceived in the marketplace.

Our brand and reputation are key assets of our business and a competitive advantage. Our ability to attract and retain clients is highly dependent upon the external perceptions of our level of data quality, effective provision of solutions, business practices, including the actions of our employees, third-party providers, members of the WWN and other brand licensees, some of which may not be consistent with our policies and standards. Negative perception or publicity regarding these matters could damage our reputation with clients and the public, which could make it difficult for us to attract and maintain clients. Adverse developments with respect to our industry may also, by association, negatively impact our reputation, or result in higher regulatory or legislative scrutiny. Negative perceptions or publicity could have a material adverse effect on our business, financial condition and results of operations.

Our international operations and our ability to expand our operations outside the United States are subject to economic, political and other inherent risks.

We derive a portion of our revenues from clients outside the United States, and it is our intent to continue to expand our international operations. We have sales and technical support personnel in numerous countries worldwide. Expansion in international markets will require significant resources and management attention and will subject us to increased regulatory, economic and political risks.

The solutions we offer in developed and emerging markets must match our clients' demand for those solutions. Due to price, limited purchasing power and differences in the development of our solutions, our solutions may not be accepted in any particular developed or emerging market, and our international expansion efforts may not be successful. Our business, financial condition and results of operations could be adversely affected by a variety of factors arising out of international commerce, some of which are beyond our control. These factors include:

- currency exchange rate fluctuations;
- foreign exchange controls that might prevent us from repatriating cash to the United States;
- difficulties in managing and staffing international offices;
- increased travel, infrastructure, legal and compliance costs of multiple international locations;
- terrorist activity, natural disasters and other catastrophic events;
- restrictions on the import and export of technologies or doing business with sanctioned countries, individuals and/or entities;
- difficulties in enforcing contracts and collecting accounts receivable;
- longer payment cycles;
- failure to meet quality standards for outsourced work;
- unfavorable tax rules;
- political and economic conditions in foreign countries, particularly in emerging markets;
- local regulations that could impact our data supply from foreign markets, including data localization and privacy and data protection laws such as the EU GDPR and new China DSL and PIPL;
- compliance with the "One China" policy;
- trade relations, including with China or that arise from the United Kingdom's exit from the European Union commonly referred to as "Brexit";
- varying business practices in foreign countries;
- reduced protection for, or increased difficulty in enforcing, intellectual property rights;
- the presence and acceptance of varying level of business corruption in international markets; and
- foreign laws and regulatory requirements, including the United Kingdom Bribery Act 2010 and the FCPA.

As we continue to expand internationally, our success will partially depend on our ability to anticipate and effectively manage these and other risks. Our failure to manage these risks could have material adverse effect on our business, financial condition and results of operations.

Data security and integrity are critically important to our business, and cybersecurity incidents, including cyberattacks, breaches of security, unauthorized access to or disclosure of confidential information, business disruption, or the perception that confidential information is not secure, could result in a material loss of business, regulatory enforcement, substantial legal liability and/or significant harm to our reputation.

We collect, store and transmit a large amount of confidential company information on over 460 million total businesses as of December 31, 2021, including financial information and personal information, as well as certain consumer information and credit information. We operate in an environment of significant risk of cybersecurity incidents resulting from unintentional events or deliberate attacks by third parties or insiders, which may involve exploiting highly obscure security vulnerabilities or sophisticated attack methods. These cyberattacks can take many forms, but they typically have one or more of the following objectives, among others:

- obtain unauthorized access to confidential information;
- manipulate or destroy data; or
- disrupt, sabotage or degrade service on our systems.

We have experienced and expect to continue to experience numerous attempts to access our computer systems, software, networks, data and other technology assets on a daily basis. The security and protection of our data is a top priority for us. We devote significant resources to maintain and regularly upgrade the wide array of physical, technical, operational, and contractual safeguards that we employ to provide security around the collection, storage, use, access and delivery of information we have in our possession. Despite our physical security, implementation of technical controls and contractual precautions to identify, detect and prevent the unauthorized access to and alteration and disclosure of our data, we cannot be certain that third party systems that have access to our systems will not be compromised or disrupted in the future, whether as a result of criminal conduct or other advanced, deliberate attacks by malicious actors, including hackers, nation states and criminals, breaches due to employee error or malfeasance, or other disruptions during the process of upgrading or replacing computer software or hardware, power outages, computer viruses, telecommunication or utility failures or natural disasters or other catastrophic events. Due to the sensitive nature of the information we collect, store and transmit, it is not unusual for efforts to occur (coordinated or otherwise) by unauthorized persons to attempt to obtain access to our systems or data, or to inhibit our ability to deliver products or services to a consumer or a business client.

We must continually monitor and develop our information technology networks and infrastructure to prevent, detect, address and mitigate the risk of unauthorized access, misuse, computer viruses and other events that could have a security impact. The preventive actions we take to address cybersecurity risk, including protection of our systems and networks, may be insufficient to repel or mitigate the effects of cyberattacks as it may not always be possible to anticipate, detect or recognize threats to our systems, or to implement effective preventive measures against all cybersecurity risks. This is because, among other things:

- the techniques used in cyberattacks change frequently and may not be recognized until after the attacks have succeeded;
- cyberattacks can originate from a wide variety of sources, including sophisticated threat actors involved in organized crime, sponsored by nation-states, or linked to terrorist or hacktivist organizations; and
- third parties may seek to gain access to our systems either directly or using equipment or security passwords belonging to employees, clients, third-party service providers or other users.

Although we have not incurred material losses or liabilities to date as a result of any breaches, unauthorized disclosure, loss or corruption of our data or inability of our clients to access our systems, such events could disrupt our operations, subject us to substantial regulatory and legal proceedings and potential liability and fines, result in a material loss of business and/or significantly harm our reputation.

We may not be able to immediately address the consequences of a cybersecurity incident because a successful breach of our computer systems, software, networks or other technology assets could occur and persist for an extended period of time before being detected due to, among other things:

- the breadth and complexity of our operations and the high volume of transactions that we process;
- the large number of clients, counterparties and third-party service providers with which we do business;
- the proliferation and increasing sophistication of cyberattacks; and
- the possibility that a third party, after establishing a foothold on an internal network without being detected, might obtain access to other networks and systems.

The extent of a particular cybersecurity incident and the steps that we may need to take to investigate it may not be immediately clear, and it may take a significant amount of time before such an investigation can be completed and full and reliable information about the incident is known. While such an investigation is ongoing, we may not necessarily know the extent of the harm or how best to remediate it, and certain errors or actions could be repeated or compounded before they are discovered and remediated, any or all of which could further increase the costs and consequences of a cybersecurity incident.

Due to concerns about data security and integrity, a growing number of legislative and regulatory bodies have adopted breach notification and other requirements in the event that information subject to such laws is accessed by unauthorized persons and additional regulations regarding the use, access, accuracy and security of such data are possible. In the United States, we are subject to laws that provide for at least 50 disparate notification regimes. In Europe, we are subject to reporting breaches across the EU and other European markets in which we operate. With the recent adoption of new data compliance laws in China and the acquisition of Eyeota, we also are subject to additional notification regimes. Complying with such numerous and complex regulations in the event of unauthorized access would be expensive and difficult, and failure to comply with these regulations could subject us to regulatory scrutiny and additional liability.

If we are unable to protect our computer systems, software, networks, data and other technology assets it could have a material adverse effect on our business, financial condition and results of operations.

A failure in the integrity of our data or the systems upon which we rely could harm our brand and result in a loss of sales and an increase in legal claims.

The reliability of our solutions is dependent upon the integrity of the data in our global databases. We utilize single source providers in certain countries to support the needs of our clients globally and rely on members of our WWN to provide local data in certain countries. A failure in the integrity of our databases, or an inability to ensure that our usage of data is consistent with any terms or restrictions on such use, whether inadvertently or through the actions of a third party, could harm us by exposing us to client or third-party claims or by causing a loss of client confidence in our solutions. For example, we license data from third parties for inclusion in the data solutions that we sell to our clients, and while we have guidelines and quality control requirements in place, we do not have absolute control over such third parties' data collection and compliance practices. We may experience an increase in risks to the integrity of our databases as we acquire content through the acquisition of companies with existing databases that may not be of the same quality or integrity as our existing databases.

In addition, there are continuous improvements in computer hardware, network operating systems, programming tools, programming languages, operating systems, data matching, data filtering and other database technologies and the use of the internet as well as emergence of new technologies. These improvements, as well as changes in client preferences or regulatory requirements or transitions to non-traditional or free data sources or new technologies, may require changes in the technology used to gather and process our data and deliver our solutions. Further, we rely on third-party technology contractors that have extensive knowledge of our systems and database technologies. The loss of these third-party contractors could negatively affect our ability to maintain and improve our systems. Our success will depend, in part, upon our ability to:

- internally develop and implement new and competitive technologies;
- use leading third-party technologies and contractors effectively;
- respond to changing client needs and regulatory requirements, including being able to bring our new solutions to the market quickly; and
- transition clients and data sources successfully to new interfaces or other technologies.

We may not successfully implement new technologies, cause clients or data suppliers to implement compatible technologies or adapt our technology to evolving client, regulatory and competitive requirements. If we fail to respond, or fail to cause our clients or data suppliers to respond, to changes in technology, regulatory requirements or client preferences, the demand for our solutions, the delivery of our solutions or our market reputation could be adversely affected. Additionally, our failure to implement important updates or the loss of key third-party technology consultants could affect our ability to successfully meet the timeline for us to generate cost savings resulting from our investments in improved technology. Failure to achieve any of these objectives would impede our ability to deliver strong financial results.

Although we are continually evolving the systems upon which we rely to sustain delivery of our solutions, meet client demands and support the development of new solutions and technologies, certain of our existing infrastructure is comprised of complex legacy technology that requires time and investment to upgrade without disruption to the business. We have in the past been subject to client and third-party complaints and lawsuits regarding our data, which have occasionally been resolved by the payment of monetary damages. We have also licensed, and we may license in the future, proprietary rights to third parties. While we attempt to ensure that the quality of our brand is maintained by the third parties to whom we grant such licenses and by clients, they may take actions that could materially adversely affect the value of our proprietary rights or our reputation, which could have a material adverse effect on our business, financial condition and results of operations.

If we experience system failures, personnel disruptions or capacity constraints, the delivery of our solutions to our clients could be delayed or interrupted, which could harm our business and reputation and result in the loss of revenues or clients.

Our ability to provide reliable service largely depends on our ability to maintain the efficient and uninterrupted operation of our computer network, systems and data centers, some of which have been outsourced to third-party providers who are increasingly reliant on cloud-based service providers to deliver their services. In addition, we generate a significant amount of our revenues through channels that are dependent on links to telecommunications providers. Our systems, personnel and operations could be exposed to damage or interruption from fire, natural disasters, power loss, war, terrorist acts, civil disobedience, telecommunication failures, computer viruses, DDoS attacks or human error. We may not have sufficient redundant operations to cover a loss or failure of our systems in a timely manner. Any significant interruption could have a material adverse effect on our business, financial condition and results of operations.

We could lose our access to data sources or ability to transfer data across the data sources in markets we operate, which could prevent us from providing our solutions.

Our solutions depend extensively upon continued access to and receipt of data from external sources, including data received from clients, strategic partners and various government and public records repositories. In some cases, we compete with our data providers. Our data providers could stop providing data, provide untimely data or increase the costs for their data for a variety of reasons, including a perception that our systems are unsecure as a result of a data security incidents, budgetary constraints, a desire to generate additional revenue or for regulatory or competitive reasons. For example, the ability of our data providers to process and analyze such data may be constrained by government mandates to work remotely. In 2021, following a 2020 ruling by the Court of Justice of the European Union in its Case 311/18 Data Protection Commission v Facebook Ireland and Maximillian Schrems (Schrems II), European regulators and the European Commission adopted prescriptive measures for assessing and demonstrating that all cross-border data transfers comply with the ruling. Additionally, in 2021, China adopted its own restrictions on cross-border data transfers under its new DSL and PIPL data compliance laws. As a result of these developments and related regulatory decisions, we have become and may become subject to further increased restrictions or mandates on the collection, disclosure or use or transfer of such data, in particular if such data is not collected by our providers in a way that allows us to legally use the data or cannot be transferred out of the country where it has been collected. We may not be successful in maintaining our relationships with these external data source providers or be able to continue to obtain data from them on acceptable terms or at all. Furthermore, we may not able to obtain data from alternative sources if our current sources become unavailable. If we were to lose access to this external data or if our access or use were restricted or were to become less economical or desirable, our ability to provide solutions could be negatively impacted, which could have a material adverse effect on our business, financial condition and results of operations.

We use software vendors and network and cloud providers in our business and if they cannot deliver or perform as expected or if our relationships with them are terminated or otherwise change it could have a material adverse effect on our business, financial condition and results of operations.

Our ability to provide solutions to our clients requires that we work with certain third party providers, including software vendors and network and cloud providers, and depends on such third parties meeting our expectations in both timeliness, quality, quantity and economics. Our third party suppliers may be unable to meet such expectations due to a number of factors, including due to factors attributable to the COVID-19 global pandemic. We might incur significant additional liabilities if the services provided by these third parties do not meet our expectations, if they terminate or refuse to renew their relationships with us or if they were to offer their services to us on less advantageous terms. In addition, while there are backup systems in many of our operating facilities, we may experience an extended outage of network services supplied by these vendors or providers that could impair our ability to deliver our solutions, which could have a material adverse effect on our business, financial condition and results of operations.

We rely on our relationships with key long-term clients, business partners and government contracts for a substantial part of our revenue, the diminution or termination of which could have a material adverse effect on our business, financial condition and results of operations.

We have long-standing relationships with a number of our clients, many of whom renew their contracts with us annually, which provides our clients with the opportunity to renegotiate their contracts with us, award more business to our competitors or utilize alternative data sources. We also provide our data and solutions to business partners who may combine them with their own and other brands and services and sell them to clients. Such business partners may terminate their agreements with us and compete with us by selling our data or solutions to our clients. We may not retain or renew existing agreements, maintain relationships with any of our clients or business partners on acceptable terms or at all, or collect amounts owed to us from insolvent clients or business partners.

Market competition, business requirements, financial condition and consolidation through mergers or acquisitions, could also adversely affect our ability to continue or expand our relationships with our clients and business partners. There has been, and we expect there will continue to be, merger, acquisition and consolidation activity among our clients. If our clients merge with, or are acquired by, other entities that are not our clients, or that use fewer of our solutions, our revenue may be adversely impacted. Industry consolidation could also affect the base of recurring transaction-based revenue if consolidated clients combine their operations under one contract, since most of our contracts provide for volume discounts. In addition, our existing clients might leave certain geographic markets, which would no longer require them to purchase certain solutions from us and, consequently, we would generate less revenue than we currently expect.

Further, we derive a portion of our revenue from direct and indirect sales to U.S., state, local and foreign governments and their respective agencies and our competitors are increasingly targeting such governmental agencies as potential clients. Such government contracts are subject to various procurement or other laws and regulations, as well as contractual provisions, and violations could result in the imposition of various civil and criminal penalties, termination of contracts, forfeiture of profits, suspension of payments, or suspension of future government contracting. In addition, these entities may require license terms that we are unwilling to agree to (e.g., open data rights). As such, we may lose government clients to our competitors, our government contracts may be terminated or not be renewed or we may be suspended from government work or the ability to compete for new contracts.

The loss or diminution of one or more of our key clients, business partners or government contracts could have a material adverse effect on our business, financial condition and results of operations.

We depend, in part, on strategic alliances, joint ventures and acquisitions to grow our business. If we are unable to make strategic acquisitions and develop and maintain these strategic alliances and joint ventures, our growth may be adversely affected.

An important focus of our business is to identify business partners who can enhance our solutions and enable us to develop solutions that differentiate us from our competitors. We have entered into several alliance agreements or license agreements with respect to certain aspects of our datasets and solutions and may enter into similar agreements in the future. These arrangements may require us to restrict our use of certain of our solutions among certain client industries, or to grant licenses on terms that ultimately may prove to be unfavorable to us, either of which could have a material adverse effect on our business, financial condition or results of operations. Relationships with our alliance agreement partners may include risks due to incomplete information regarding the marketplace and commercial strategies of our partners, and our alliance agreements or other licensing agreements may be the subject of contractual disputes. If we or our alliance agreements' partners are not successful in maintaining or commercializing the alliance agreements' solutions, such commercial failure could have a material adverse effect on our business, financial condition and results of operations.

In addition, a significant strategy for our international expansion is to establish operations through strategic alliances or joint ventures, including through our WWN. These arrangements may not be successful and our relationships with our partners may not be mutually beneficial. For example, some of our WWN alliances may limit our ability to expand our international operations if one of our WWN alliances already covers a particular geography. In addition, the terms of such relationships may restrict us from doing business in certain territories other than through such alliances or ventures, and we may be restricted in our ability to terminate such arrangements quickly if they no longer prove beneficial to us. Moreover, our ownership in and control of our foreign investments may be limited by local law. If these relationships cannot be established or maintained, it could have a material adverse effect on our business, financial condition and results of operations.

We are subject to subscription and payment processing risk from our third-party vendors and any disruption to such processing systems could have a material adverse effect on our business, financial condition and results of operations.

We rely on a third-party subscription management platform to process the subscription plans and billing frequencies of our clients. In addition, we rely primarily on third parties for credit card payment processing services. If these third-party vendors were to experience an interruption, delay or outages in service and availability, we may be unable to process new and renewing subscriptions or credit card payments. Furthermore, if these third-party vendors experience a cybersecurity breach affecting data related to services provided to us, we could experience reputational damage or incur liability. Although alternative providers may be available to us, we may incur significant expense and research and development efforts to deploy any alternative providers. To the extent there are disruptions in our or third-party subscription and payment processing systems, we could experience revenue loss, accounting issues and harm to our reputation and client relationships, which could have a material adverse effect on our business, financial condition and results of operations.

Legal and Regulatory Risks

We may be unable to protect our intellectual property adequately or cost-effectively, which may cause us to lose market share or force us to reduce our prices. We also rely on trade secrets and other forms of unpatented intellectual property that may be difficult to protect.

Our success depends, in part, on our ability to protect and preserve the proprietary aspects of our technology and solutions such as our proprietary software and databases. If we are unable to protect our intellectual property, including trade secrets and other unpatented intellectual property, our competitors could use our intellectual property to market and deliver similar solutions, decreasing the demand for our solutions. We rely on the patent, copyright, trademark, trade secret and other intellectual property laws of the United States and other countries, as well as contractual restrictions, such as nondisclosure agreements, to protect and control access to our proprietary intellectual property. These measures afford limited protection, however, in particular in regard to protection of databases, and may be inadequate. Moreover, much of the data contained in our databases is not proprietary to us. We may be unable to prevent third parties from using our proprietary assets without our authorization or from breaching any contractual restrictions with us. Enforcing our rights could be costly, time-consuming, distracting and harmful to significant business relationships. Claims that a third party illegally obtained and is using trade secrets can be difficult to prove, and courts outside the United States may be less willing to protect trade secrets or other intellectual property rights. Additionally, others may independently develop non-infringing technologies that are similar or superior to ours. Any significant failure or inability to adequately protect and control our proprietary assets may harm our business and reduce our ability to compete.

We may face claims for intellectual property infringement, which could subject us to monetary damages or limit us in using some of our technologies or providing certain solutions.

There has been substantial litigation in the United States regarding intellectual property rights in the information technology industry. We may face claims that we infringe on the intellectual property rights of third parties, including the intellectual property rights of third parties in other countries, which could result in a liability to us. Historically, patent applications in the United States and some foreign countries have not been publicly disclosed until 18 months following submission of the patent application, and we may not be aware of currently filed patent applications that relate to our solutions or processes. If patents are later issued on these applications, we may be liable for infringement. In the event that claims are asserted against us, we may be required to obtain licenses from third parties (if available on acceptable terms or at all). Any such claims, regardless of merit, could be time consuming and expensive to litigate or settle, divert the attention of management and materially disrupt the conduct of our business, and we may not prevail. Intellectual property infringement claims against us could subject us to liability for damages and restrict us from providing solutions or require changes to certain solutions. Although our policy is to obtain licenses or other rights where necessary, we may not have obtained all required licenses or rights. If a successful claim of infringement is brought against us and we fail to develop non-infringing solutions, or to obtain licenses on a timely and cost-effective basis, it could have a material adverse effect on our business, financial condition and results of operations.

We are subject to various governmental regulations, laws and orders, compliance with which may cause us to incur significant expenses or reduce the availability or effectiveness of our solutions, and the failure to comply with which could subject us to civil or criminal penalties or other liabilities.

We are subject to various government regulations, such as the FTC Act and the CCPA, as well as forthcoming laws in Virginia and Colorado, in the United States, the GDPR in the European Union, the Cyber Security Law, DSL, and PIPL in China and various other international, federal, state and local laws and regulations. See "Business—Regulatory Matters" for a description of select regulatory regimes to which we are subject. These laws and regulations, which generally are designed to protect the privacy of information relating to individuals and to prevent the unauthorized collection, access to and use of personal or confidential information available in the marketplace and prohibit certain deceptive and unfair acts, are complex and have tended to become more stringent over time. Further, these laws and regulations may change or be interpreted and applied differently over time and from jurisdiction to jurisdiction, and it is possible they will be interpreted and applied in ways that will materially and adversely affect our business. For example, several U.S. states have recently introduced and passed legislation to expand data security breach notification rules and to expand the scope of privacy protections provided. New privacy legislation that may impact Dun & Bradstreet has also been proposed both in the U.S. and internationally, including in Canada and India. We already incur significant expenses in our attempt to ensure compliance with these laws.

As a result of the Bisnode acquisition we are subject to additional national data protection and credit laws as well as constitutional requirements that impose additional legal requirements and continue to be evaluated in conjunction with our integration. There is pending GDPR-related litigation in Poland that may have an adverse impact on us. The effectiveness of Bisnode's compliance controls, including third party vendor reviews also needs to be further evaluated during integration.

Some of the new U.S. state laws are intended to provide consumers (including sole proprietors) with greater transparency and control over their personal data as well as to provide additional obligations and duties for businesses. For example, the California Privacy Rights Act ("CPRA"), which amends the CCPA, will become effective January 1, 2023, and expand upon the CCPA. Additionally, the Virginia Consumer Data Protection Act ("CDPA"), which will become effective on January 1, 2023 and the Colorado Privacy Act ("CPA"), which is expected to become effective on July 1, 2023, both are expected to affect our business. Each of these laws places requirements on a broad scope of data sales, which are likely to affect our business. Additionally, the duties and obligations for data handling, time sensitive privacy rights management, assessments, contracts, and similar requirements are expected to create more operational burdens on our business. We anticipate that additional state and/or federal legislation in the U.S. will continue to be enacted, and that our operations will need to continue to evolve to accommodate unique considerations across jurisdictions.

The following legal and regulatory developments also could have a material adverse effect on our business, financial condition or results of operations:

- changes in cultural and consumer attitudes in favor of further restrictions on information collection use and transfer, which may lead to regulations that prevent full utilization of our solutions and impair our ability to transfer data cross-borders;
- failure of data suppliers or clients to comply with laws or regulations, where mutual compliance is required;

- failure of our solutions to comply with current laws and regulations; and
- failure to adapt our solutions to changes in the regulatory environment in an efficient, cost-effective manner. This would include the failure to adapt modifications to existing solutions, or new solutions created internally or acquired through mergers, to existing or evolving legal requirements.

Changes in applicable legislation or regulations that restrict or dictate how we collect, maintain, combine and disseminate information could have a material adverse effect on our business, financial condition or results of operations. In the future, we may be subject to significant additional expense to ensure continued compliance with applicable laws and regulations and to investigate, defend or remedy actual or alleged violations. Moreover, our compliance with privacy laws and regulations and our reputation depend in part on our clients' and business partners' adherence to privacy laws and regulations and their use of our solutions in ways consistent with client expectations and regulatory requirements. Businesses today are under intense scrutiny to comply with an ever-expanding and evolving set of data regulatory requirements, which can vary by geography and industry served. As such, performing adequate diligence on clients and suppliers can be cumbersome and dampen the pace of their business expansion or leave a business exposed to fines and penalties. Further, certain of the laws and regulations governing our business are subject to interpretation by judges, juries and administrative entities, creating substantial uncertainty for our business. We cannot predict what effect the interpretation of existing or new laws or regulations may have on our business.

Current and future litigation, investigations or other actions against us could be costly and time consuming to defend.

We are from time to time subject to legal proceedings and claims that arise in the ordinary course of business, such as claims brought by our clients in connection with commercial disputes, defamation claims by subjects of our reporting, employment claims made by our current or former employees and regulatory investigations or other proceedings by state and federal regulators. We responded to a second civil investigative demand from the U.S. Federal Trade Commission ("FTC") that we received in September 2019 in relation to an investigation by the FTC into potential violations of Section 5 of the FTC Act, primarily concerning our credit managing and monitoring products, such as CreditBuilder. On February 23, 2021, the FTC staff provided us with a draft complaint and consent order outlining its allegations and the forms of relief sought, and advised that it had been given authority to engage in consent negotiations. Following consent negotiations, on September 21, 2021, we agreed to enter into an Agreement Containing Consent Order subject to acceptance by the FTC. This and other regulatory investigations may result in the assessment of fines for violations of laws or regulations or settlements resulting in a variety of remedies. On January 13, 2022, the FTC announced the proposed Order subject to a public comment period for 30 days from publication in the Federal Register. See Note 8 "Contingencies" to the Consolidated Financial Statements included in Item 8 of Part II of this Report.

We may incur material costs and expenses in connection with any investigations or claims, including but not limited to fines or penalties and legal costs, or be subject to other remedies, any of which could have a material adverse effect on our business, financial condition and results of operations. Insurance may not cover such investigations and claims, may not be sufficient for one or more such investigations and claims and may not continue to be available on terms acceptable to us. An investigation or claim brought against us that is uninsured or underinsured could result in unanticipated costs, management distraction or reputational harm, which could have a material adverse effect on our business, financial condition and results of operations.

If we experience changes in tax laws or adverse outcomes resulting from examination of our tax returns, it could have a material adverse effect on our business, financial condition and results of operations.

We are subject to federal, state and local income and other taxes in the United States and in foreign jurisdictions. From time to time U.S. federal, state, local and foreign governments make substantive changes to tax rules and the application thereof, which could result in materially different corporate taxes than would be incurred under existing tax law or interpretation and could adversely impact profitability. Governments have strengthened their efforts to increase revenues through changes in tax law, including laws regarding transfer pricing, economic presence and apportionment to determine the tax base.

Consequently, significant judgment is required in determining our worldwide provision for income taxes. Our future effective tax rates and the value of our deferred tax assets could be adversely affected by changes in tax laws. In addition, we are subject to the examination of our income tax returns and other tax authorities in the United States and in foreign jurisdictions. We regularly assess the likelihood of adverse outcomes resulting from such examinations to determine the adequacy of our provision for income taxes and reserves for other taxes. Although we believe we have made appropriate provisions for taxes in the jurisdictions in which we operate, changes in tax laws, or challenges from tax authorities under existing tax laws could have a material adverse effect on our business, financial condition and results of operations.

Financial Risks

We have recorded a substantial amount of goodwill as a result of the Take-Private Transaction, and an economic downturn could cause the goodwill to become impaired, requiring write-downs that could have a material adverse effect on our business, financial condition, results of operations.

Goodwill recorded on our balance sheet was $3,493.3 million, or approximately 35% of our total assets, as of December 31, 2021. We are required to test goodwill and any other intangible assets with an indefinite life for possible impairment on an annual basis and on an interim basis if there are indicators of a possible impairment. We are also required to evaluate amortizable intangible assets and property, plant and equipment for impairment if there are indicators of a possible impairment.

There is significant judgment required in the analysis of a potential impairment of goodwill, identified intangible assets and property, plant and equipment. If, as a result of a general economic slowdown, deterioration in one or more of the markets in which we operate or impairment in our financial performance and/or future outlook, the estimated fair value of our long-lived assets decreases, we may determine that one or more of our long-lived assets is impaired. An impairment charge would be determined based on the estimated fair value of the assets and any such impairment charge could have a material adverse effect on our business, financial condition and results of operations.

Our pension plans are subject to financial market risks that could have a material adverse effect on our business, financial condition and results of operations.

We have significant pension plan assets and funding obligations. The performance of the financial and capital markets impacts our plan expenses and funding obligations. Decreases in market interest rates, decreases in the fair value of plan assets and investment losses on plan assets will increase our funding obligations, and could have a material adverse effect on our business, financial condition and results of operations.

Our substantial indebtedness could have a material adverse effect on our financial condition and our ability to operate our business or react to changes in the economy or our industry, prevent us from fulfilling our obligations and could divert our cash flow from operations for debt payments.

We have a substantial amount of indebtedness, which requires significant interest and principal payments. As of December 31, 2021, we had $3,822.9 million in total indebtedness outstanding, consisting of borrowings from our revolving credit facility, term loan borrowings under our senior secured credit facilities ("Senior Secured Credit Facilities") and our senior secured and unsecured notes. In addition, subject to the limitations contained in the credit agreements governing our Senior Secured Credit Facilities and the indentures governing our senior secured and unsecured notes, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, investments or acquisitions or for other purposes. If we do so, the risks related to our high level of debt could increase. This substantial amount of indebtedness could have important consequences to us, including the following:

- it may be difficult for us to satisfy our obligations, including debt service requirements under our outstanding indebtedness;
- our ability to obtain additional financing for working capital, capital expenditures, debt service requirements, acquisitions or other general corporate purposes may be impaired;
- requiring a substantial portion of cash flow from operations to be dedicated to the payment of principal and interest on our indebtedness, thereby reducing our ability to use our cash flow to fund our operations, capital expenditures, future business opportunities and other purposes;
- we will be more vulnerable to economic downturns and adverse industry conditions and our flexibility to plan for, or react to, changes in our business or industry will be more limited;
- our ability to capitalize on business opportunities and to react to competitive pressures, as compared to our competitors, may be compromised due to our high level of indebtedness and the restrictive covenants in our credit agreements and indentures;
- our ability to borrow additional funds or to refinance indebtedness may be limited; and
- it may cause potential or existing clients or vendors to not contract with us due to concerns over our ability to meet our financial obligations.

For additional information on our indebtedness, see Note 6 to the Consolidated Financial Statements.

Despite our indebtedness levels, we and our subsidiaries may still be able to incur substantially more debt, which could further exacerbate the risks associated with our substantial leverage.

We and our subsidiaries may be able to incur substantial additional indebtedness. Although the agreements governing our indebtedness contain restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions, and the indebtedness that may be incurred in compliance with these restrictions could be substantial. Further, the restrictions in such agreements do not prevent us from incurring obligations, such as trade payables, that do not constitute indebtedness as defined in such debt instruments.

We may be unable to service our indebtedness.

Our ability to make scheduled payments on and to refinance our indebtedness, depends on and is subject to our financial and operating performance, which in turn is affected by general and regional economic, financial, competitive, business and other factors and reimbursement actions of governmental and commercial payors, all of which are beyond our control, including the availability of financing in the international banking and capital markets. Lower net revenues before provision for credit loss, or higher provision for uncollectibles, generally will reduce our cash flow. We may not generate sufficient cash flow from operations, realize anticipated cost savings and operating improvements or be able to borrow sufficient funds to service or refinance our indebtedness or fund our other liquidity needs.

If we are unable to meet our debt service obligations or to fund our other liquidity needs, we will need to restructure or refinance all or a portion of our indebtedness, which could cause us to default on our debt obligations and impair our liquidity. Our ability to restructure or refinance our indebtedness will depend on the condition of the capital markets and our financial condition at such time. Any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants that could further restrict our business operations.

Moreover, in the event of a default, the holders of our indebtedness could elect to declare all the funds borrowed to be due and payable, together with accrued and unpaid interest, if any. The lenders under the revolving facility could also elect to terminate their commitments thereunder, cease making further loans, and institute foreclosure proceedings against their collateral, and we could be forced into bankruptcy or liquidation. If we breach our covenants under the credit facilities, we would be in default thereunder. The lenders could exercise their rights, as described above, and we could be forced into bankruptcy or liquidation.

The agreements governing our indebtedness impose significant operating and financial restrictions on us, which may restrict our ability to pursue our business strategies and capitalize on business opportunities.

The agreements governing our indebtedness each impose significant operating and financial restrictions on us. These restrictions limit the ability of certain of our subsidiaries to, among other things:

- incur or guarantee additional debt or issue disqualified stock or preferred stock;
- pay dividends and make other distributions on, or redeem or repurchase, capital stock;
- make certain investments;
- incur certain liens;
- enter into transactions with affiliates;
- merge or consolidate;
- enter into agreements that restrict the ability of restricted subsidiaries to make dividends or other payments to the issuer or the guarantors;
- designate restricted subsidiaries as unrestricted subsidiaries; and
- transfer or sell assets.

As a result of these restrictions, we are limited as to how we conduct our business, and we may be unable to raise additional debt or equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants.

Our failure to comply with the restrictive covenants described above as well as other terms of our indebtedness and/or the terms of any future indebtedness from time to time could result in an event of default, which, if not cured or waived, could result in our being required to repay these borrowings before their due date. If we are forced to refinance these borrowings on less favorable terms or cannot refinance these borrowings, it could have a material adverse effect on our business, financial condition and results of operations. For additional information on our indebtedness, see Note 6 to Consolidated Financial Statements.

A decline in our operating results or available cash could cause us to experience difficulties in complying with covenants contained in more than one agreement, which could result in bankruptcy or liquidation.

If we were to sustain a decline in our operating results or available cash, we could experience difficulties in complying with the financial covenant contained in our credit agreements. The failure to comply with such covenants could result in an event of default and by reason of cross-acceleration or cross-default provisions, other indebtedness may then become immediately due and payable. In addition, should an event of default occur, the lenders of such debt could elect to terminate their commitments thereunder, cease making loans and institute foreclosure proceedings against our assets, and we could be forced into bankruptcy or liquidation. If our operating performance declines, we may need to obtain waivers from the required lenders under our credit facilities to avoid being in default. If we breach our covenants under our credit facilities and seek a waiver, we may not be able to obtain a waiver from the required lenders. If this occurs, we would be in default, the lenders could exercise their rights, as described above, and we could be forced into bankruptcy or liquidation.

Change in credit ratings, increases in interest rates, or volatility in the U.S. and global financial markets could impede access to, or increase the cost of, financing our operations and investments.

Our borrowing costs can be affected by short- and long-term debt ratings assigned by independent ratings agencies that are based, in part, on the Company's performance as measured by credit metrics such as leverage and interest coverage ratios. Any potential future downgrades could further increase, our cost of borrowing and/or make it more difficult for us to obtain financing. In addition, increases in interest rates or volatility in U.S. and global financial markets could impact our access to, or increase the cost of, financing. Past disruptions in the U.S. and global credit and equity markets made it more difficult for many businesses to obtain financing on acceptable terms. These conditions tended to increase the cost of borrowing and if they recur, our cost of borrowing could increase and it may be more difficult to obtain financing for our operations or investments.

Risks Related to Our Company Structure

Certain of our executive officers and directors have or will have interests and positions that could present potential conflicts and demands on their time.

We are party to a variety of related party agreements and relationships with our Investor Consortium or their affiliates. Our Chief Executive Officer, Anthony M. Jabbour, will serve until May 16, 2022 as the Chairman and Chief Executive Officer of Black Knight and then will transition to Executive Chairman of Black Knight. In these roles, Mr. Jabbour may be required to devote a significant amount of time to Black Knight. Mr. Jabbour also serves as a member of the board of directors of Paysafe Limited. Three of our nine directors, including Messrs. Jabbour, Hagerty and Rao also serve on the board of directors of Black Knight. Mr. Foley serves as Chairman of the board of directors of Cannae and our director Richard N. Massey serves as Chief Executive Officer and a director of Cannae.

As a result of the foregoing, there may be circumstances where Mr. Jabbour, Mr. Foley and certain of our other directors may be subject to conflicts of interest with respect to, among other things: (i) our ongoing or future relationships with members or affiliates of the Investor Consortium, including any related party agreements; (ii) the quality, pricing and other terms associated with services that we provide to members or affiliates of the Investor Consortium, or that they provide to us, under related party agreements that we may have now or in the future; (iii) business opportunities arising for any of us, members or affiliates of the Investor Consortium; and (iv) conflicts of time with respect to matters potentially or actually involving or affecting us.

We have in place a code of conduct prescribing procedures for managing conflicts of interest. Our Chief Compliance Officer and audit committee take responsibility for the review, approval or ratification of any potential conflicts of interest transactions. Additionally, we expect that interested directors will abstain from decisions with respect to conflicts of interest as a matter of practice. However, there can be no assurance that such measures will be effective, that we will be able to resolve all potential conflicts or that the resolution of any such conflicts will be no less favorable to us than if we were dealing with an unaffiliated third party. See Note 19 to the Consolidated Financial Statements for more information related to our related party relationships and transactions.

Future sales of our common stock in the public market could cause the market price of our common stock to decrease significantly.

Sales of substantial amounts of our common stock in the public may cause the market price of our common stock to decrease significantly.

As of February 18, 2022, our Investor Consortium collectively held 44.0% of our voting power of our common stock. We have entered into a registration rights agreement with our Investor Consortium. Under the registration rights agreement, our Investor Consortium has the right to demand that we register shares of common stock held by them under the Securities Act as well as piggyback registration rights that we include any such shares of common stock in any registration statement that we file with the SEC, subject to certain exceptions. If the shares of common stock held by our Investor Consortium are registered for resale pursuant to the registration rights agreement, they will be freely tradeable. In the event such registration rights are exercised and a large number of shares of our common stock are sold in the public market, such sales could reduce the trading price of our common stock.

Further, we have filed registration statements registering under the Securities Act 40,000,000 shares of common stock for issuance under our equity incentive plan and 3,000,000 shares of common stock for purchase under our employee stock purchase plan. As shares are registered, our share price could drop significantly if the holders of the newly registered shares sell them or are perceived by the market as intending to sell them. These sales, or the possibility that these sales may occur, might also make it more difficult for us to raise capital through the sale of equity securities at a time and at a price that we deem appropriate.

We do not intend to pay dividends for the foreseeable future.

We may retain future earnings, if any, for future operations, expansion and debt repayment and have no current plans to pay any cash dividends for the foreseeable future. As a result of our current dividend policy, you may not receive any return on an investment in our common stock unless you sell our common stock for a price greater than that which you paid for it. Any future determination to declare and pay cash dividends will be at the discretion of our board of directors and will depend on, among other things, our financial condition, results of operations, cash requirements, contractual restrictions and such other factors as our board of directors deems relevant. Our ability to pay dividends depends on our receipt of cash dividends from our operating subsidiaries, which may further restrict our ability to pay dividends as a result of the laws of their jurisdiction of organization or agreements of our subsidiaries, including agreements governing our indebtedness.

Members of the Investor Consortium are party to a letter agreement pursuant to which they have agreed for a period of three years to vote all of their shares as a group in all matters related to the election of directors, including to elect five individuals to our board of directors, and it is possible the interests of the Investor Consortium may conflict with the interests of our other shareholders.

Bilcar, THL, Cannae, Black Knight and CC Capital (or their applicable affiliates) collectively held 44.0% of the voting power of our common stock as of February 18, 2022. In connection with the IPO, this group entered into a letter agreement pursuant to which they (or their applicable affiliates) agreed to vote all of their shares as a group in all matters related to the election of directors, including to elect William P. Foley, II, Richard N. Massey, Thomas M. Hagerty, Ganesh B. Rao and Chinh E. Chu to our board of directors at each of the next shareholder meetings through the 2023 shareholder meeting at which such individuals are eligible for election. As a result, it is possible that the interests of the Investor Consortium may in some circumstances conflict with our interests and the interests of our other stockholders.

Our Investor Consortium can significantly influence our business and affairs and may have conflicts of interest with us in the future.

Our Investor Consortium collectively held 44.0% of the voting power of our common stock as of February 18, 2022. As a result, the members of the Investor Consortium have the ability to significantly influence any matter that requires the approval of stockholders, including the election of directors, mergers and takeover offers, regardless of whether others believe that approval of those matters is in our best interests.

In addition, the members of the Investor Consortium are in the business of making investments in companies and may from time to time acquire and hold interests in businesses that compete directly or indirectly with us. One or more of the members of the Investor Consortium may also pursue acquisition opportunities that may be complementary to our business and, as a result, those acquisition opportunities may not be available to us. So long as the Investor Consortium, or funds controlled by or associated with the Investor Consortium, continue to own a significant amount of the outstanding shares of our common stock, the Investor Consortium will continue to be able to strongly influence us. Our amended and restated certificate of incorporation provides that none of the members of the Investor Consortium or any of their affiliates will have any duty to refrain from (i) engaging in a corporate opportunity in the same or similar lines of business in which we or our affiliates now engage or propose to engage or (ii) otherwise competing with us or our affiliates.

Anti-takeover protections in our amended and restated certificate of incorporation, our amended and restated bylaws or our contractual obligations may discourage or prevent a takeover of our company, even if an acquisition would be beneficial to our stockholders.

Provisions contained in our amended and restated certificate of incorporation and amended and restated bylaws, as amended, as well as provisions of the Delaware General Corporation Law (the "DGCL"), could delay or make it more difficult to remove incumbent directors or could impede a merger, takeover or other business combination involving us or the replacement of our management, or discourage a potential investor from making a tender offer for our common stock, which, under certain circumstances, could reduce the market value of our common stock, even if it would benefit our stockholders.

In addition, our board of directors has the authority to cause us to issue, without any further vote or action by the stockholders, up to 25,000,000 shares of preferred stock, par value $0.001 per share, in one or more series, to designate the number of shares constituting any series, and to fix the rights, preferences, privileges and restrictions thereof, including dividend rights, voting rights, rights and terms of redemption, redemption price, or prices and liquidation preferences of such series. The issuance of shares of preferred stock or the adoption of a stockholder rights plan may have the effect of delaying, deferring or preventing a change in control of our company without further action by the stockholders, even where stockholders are offered a premium for their shares.

Our amended and restated certificate of incorporation designates the Court of Chancery of the State of Delaware as the sole and exclusive forum for certain types of actions and proceedings that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for disputes with us or our directors, officers, employees, agents or other stockholders.

Our amended and restated certificate of incorporation provides that, unless we consent in writing to an alternative forum, the Court of Chancery of the State of Delaware shall, to the fullest extent permitted by law, be the sole and exclusive forum for any (i) derivative action or proceeding brought on our behalf, (ii) action asserting a claim of breach of a fiduciary duty or other wrongdoing by any of our directors, officers, employees, agents or stockholders to us or our stockholders, (iii) action asserting a claim arising under any provision of the DGCL, our amended and restated certificate of incorporation, or our amended and restated bylaws or as to which the DGCL confers jurisdiction on the Court of Chancery of the State of Delaware, or (iv) action asserting a claim governed by the internal affairs doctrine of the law of the State of Delaware, except for, as to each of (i) through (iv) above, any action as to which the Court of Chancery of the State of Delaware determines that there is an indispensable party not subject to the personal jurisdiction of the Court of Chancery of the State of Delaware (and the indispensable party does not consent to the personal jurisdiction of the Court of Chancery of the State of Delaware within ten (10) days following such determination), in which case the United States District Court for the District of Delaware or other state courts of the State of Delaware, as applicable, shall, to the fullest extent permitted by law, be the sole and exclusive forum for any such claims. The federal district courts of the United States of America shall be the sole and exclusive forum for the resolution of any action asserting a claim arising under the Securities Act, the Exchange Act, or the rules and regulations promulgated thereunder. To the fullest extent permitted by law, any person or entity purchasing or otherwise acquiring or holding any interest in any shares of our capital stock shall be deemed to have notice of and consented to the forum provision in our amended and restated certificate of incorporation. This choice of forum provision may limit a stockholder's ability to bring a claim in a different judicial forum, including one that it may find favorable or convenient for a specified class of disputes with us or our directors, officers, other stockholders, or employees, which may discourage such lawsuits, make them more difficult or expensive to pursue, and result in outcomes that are less favorable to such stockholders than outcomes that may have been attainable in other jurisdictions. By agreeing to this provision, however, stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder. The enforceability of similar choice of forum provisions in other companies' certificates of incorporation has been challenged in legal proceedings, and it is possible that a court could find these types of provisions to be inapplicable or unenforceable. If a court were to find the choice of forum provisions in our amended and restated certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions, which could have a material adverse effect on our business, financial condition and results of operations.

General risks

Unfavorable global economic conditions could have a material adverse effect on our business, financial condition and results of operations.

Our business is impacted by general economic conditions and trends in the United States and abroad, including the COVID-19 global pandemic. Our largest clients, and therefore our business and revenues, depend on favorable macroeconomic conditions and are impacted by the availability of credit, the level and volatility of interest rates, inflation and employment levels. In addition, a significant amount of our revenues are concentrated among certain clients and in distinct geographic regions, particularly in the United States. Our solutions are also concentrated by varying degrees across different industries, particularly financial services, technology, communications, government, retail, transportation and manufacturing. Our client base suffers when financial markets experience volatility, illiquidity and disruption, which has occurred in the past and could reoccur in the future. Accordingly, we may have difficulty collecting payment from some clients on a timely basis or at all, and we may see higher rates of bankruptcies, restructurings, dissolutions and similar events among our client base. The potential for increased and continuing disruptions going forward, present considerable risks to our business and revenue. Changes in the economy have resulted, and may continue to result in, fluctuations in volumes, pricing and operating margins for our solutions. These types of disruptions could lead to a decline in client demand for our solutions and could have a material adverse effect on our business, financial condition and results of operations.

Economic conditions can also impair the ability of those with whom we do business to satisfy their obligations to us. In addition, an increase in price levels generally, such as with current inflation related to domestic and global supply chain issues, could adversely affect our revenues and, at the same time increase our costs.

An outbreak of disease, global or localized health pandemic or epidemic or a similar public health threat, or the fear of such an event, could have a material adverse effect on our business, financial condition and results operations.

A significant outbreak of contagious diseases in the human population, such as the COVID-19 global pandemic, could result in a widespread health crisis that could adversely affect the economies and financial markets of many countries, resulting in an economic downturn that could have an adverse effect on demand for our solutions and access to our data sources. Disruptions in the financial markets could limit the ability or willingness of our clients to extend credit to their customers or cause our clients to constrain budgets, which could adversely impact demand for our data and analytics solutions. The U.S. and other governments abroad have implemented enhanced screening, broad shelter-in-place orders and social distancing requirements, business closures, quarantine requirements and travel restrictions in connection with the COVID-19 global pandemic. In addition to governmental measures, companies, including Dun & Bradstreet, are imposing, or may impose, temporary precautionary measures intended to help minimize the risk of the virus to employees, customers and communities, including requiring that employees work remotely and restricting non-essential travel. Additionally, many businesses permanently reduced employee headcount and many others have permanently ceased operations as a result of the pandemic. Given the breadth of our data, the large number of countries the data is sourced from and system requirements necessary to process and analyze such data, many of our employees and employees of our partners have been and may continue to be limited or unable to effectively work remotely. Further, our employees travel frequently to maintain relationships with and sell our solutions to our clients. Continued mandates that employees work remotely, prolonged travel restrictions or general economic uncertainty could negatively impact our suppliers' ability to provide us with data and services, our ability to acquire new customers and expand our offerings within existing customers, our ability to deliver or market our solutions and client demand for our solutions. The extent of the impact of the COVID-19 global pandemic on our operational and financial performance will depend on future developments, including the duration and spread of the global pandemic, related travel advisories, business closures and quarantine or social distancing restrictions, the speed of recovery once the pandemic subsides, the impact of any resurgence of the pandemic once measures to slow the spread of the virus have been lifted and impacts to the global markets, all of which are highly uncertain and cannot be predicted. Preventing the effects from and responding to this market disruption or any other public health threat, related or otherwise, could further impact demand for our solutions and could have a material adverse effect on our business, financial condition and results of operations.

When we engage in acquisitions, investments in new businesses or divestitures of existing businesses, we will face risks that could have a material adverse effect on our business, financial condition and results of operations.

Acquisitions are part of our growth strategy. We may acquire or make investments in businesses that offer new or complementary solutions and technologies. Acquisitions may not be completed on favorable terms and acquired assets, data or businesses may not be successfully integrated into our operations. Any acquisitions or investments will include risks commonly encountered in acquisitions of businesses, including:

- failing to achieve the financial and strategic goals for the acquired business;
- paying more than fair market value for an acquired company or assets;
- failing to integrate the operations and personnel of the acquired businesses in an efficient and timely manner;
- disrupting our ongoing businesses;
- distracting management focus from our existing businesses;
- acquiring unanticipated liabilities;
- failing to retain key personnel;
- incurring the expense of an impairment of assets due to the failure to realize expected benefits;
- damaging relationships with employees, clients or strategic partners;
- diluting the share value of existing stockholders; and
- incurring additional debt or reducing available cash to service our existing debt.

Any divestitures will be accompanied by the risks commonly encountered in the sale of businesses, which may include:

- disrupting our ongoing businesses;
- reducing our revenues;
- losing key personnel;
- distracting management focus from our existing businesses;
- indemnification claims for breaches of representations and warranties in sale agreements;
- damaging relationships with employees and clients as a result of transferring a business to new owners; and
- failure to close a transaction due to conditions such as financing or regulatory approvals not being satisfied.

These risks could have a material adverse effect on our business, financial condition and results of operations, particularly if they occur in the context of a significant acquisition or divestiture. Acquisitions of businesses having a significant presence outside the United States will increase our exposure to the risks of conducting operations in international markets.

We are subject to losses from risks for which we do not insure.

For certain risks, we do not maintain insurance coverage because of cost and/or availability. Because we retain some portion of insurable risks, and in some cases retain our risk of loss completely, unforeseen or catastrophic losses in excess of insured limits could have a material adverse effect on our business, financial condition and results of operations.

Claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

Our amended and restated certificate of incorporation and amended and restated bylaws provide that we will indemnify our directors and officers, in each case, to the fullest extent permitted by Delaware law. Pursuant to our amended and restated certificate of incorporation, our directors will not be liable to us or any stockholders for monetary damages for any breach of fiduciary duty, except (i) for acts that breach his or her duty of loyalty to the company or its stockholders, (ii) for acts or omissions without good faith or involving intentional misconduct or knowing violation of the law, (iii) pursuant to Section 174 of DGCL or (iv) for any transaction from which the director derived an improper personal benefit. The bylaws also require us, if so requested, to advance expenses that such director or officer incurred in defending or investigating a threatened or pending action, suit or proceeding, provided that such person will return any such advance if it is ultimately determined that such person is not entitled to indemnification by us. Any claims for indemnification by our directors and officers may reduce our available funds to satisfy successful third-party claims against us and may reduce the amount of money available to us.

We may not be able to attract and retain the skilled employees that we need to support our business.

Our success depends on our ability to attract and retain experienced management, sales, research and development, analytics, software engineers, data scientists, marketing and technical support personnel. If any of our key personnel were unable or unwilling to continue in their present positions, it may be difficult to replace them and our business could be seriously harmed. If we are unable to find qualified successors to fill key positions as needed, our business could be seriously harmed. The complexity of our solutions requires trained client service and technical support personnel. We may not be able to hire and retain such qualified personnel at compensation levels consistent with our compensation structure. Some of our competitors may be able to offer more attractive terms of employment. In addition, we invest significant time and expense in training our employees, which increases their value to competitors who may seek to recruit them. If we fail to retain our employees, we could incur significant expense replacing employees and our ability to provide quality solutions could diminish, which could have a material adverse effect on our business, financial condition and results of operations.

Our senior leadership team is critical to our continued success, and the loss of such personnel could have a material adverse effect on our business, financial condition and results of operations.

Our future success substantially depends on the continued service and performance of the members of our senior leadership team. These personnel possess business and technical capabilities that are difficult to replace. If we lose key members of our senior management operating team or are unable to effect smooth transitions from one executive to another as part of our succession plan, we may not be able to effectively manage our current operations or meet ongoing and future business challenges, and this could have a material adverse effect on our business, financial condition and results of operations.

Certain estimates of market opportunity, forecasts of market growth and our operating metrics included in this Form 10-K may prove to be inaccurate.

Market opportunity estimates and growth forecasts are subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The estimates and forecasts in this Form 10-K relating to the size and expected growth of our target market may prove to be inaccurate. Even if the markets in which we compete meet the size estimates and growth forecasted in this prospectus, our business could fail to grow at similar rates, if at all. For more information regarding the estimates of market opportunity and the forecasts of market growth included in this 10-K, see "Business—Our Market Opportunity."

The price of our common stock may be volatile and you could lose all or part of your investment.

Securities markets worldwide have experienced in the past, and are likely to experience in the future, significant price and volume fluctuations. This market volatility, as well as general economic, market or political conditions could reduce the market price of our common stock, regardless of our results of operations. The trading price of our common stock is likely to be highly volatile and could be subject to wide price fluctuations in response to various factors, including, among other things, the risk factors described herein and other factors beyond our control. Factors affecting the trading price of our common stock could include:

- our operating performance and the performance of our competitors and fluctuations in our operating results;
- the public's reaction to our press releases, our other public announcements and our filings with the SEC;
- announcements by us or our competitors of new products, services, strategic investments or acquisitions;
- actual or anticipated variations in our or our competitors' operating results, and our and our competitors' growth rates;
- failure by us or our competitors to meet analysts' projections or guidance that we or our competitors may give the market;
- changes in laws or regulations, or new interpretations or applications of laws and regulations, that are applicable to our business;
- changes in accounting standards, policies, guidance, interpretations or principles;
- the arrival or departure of key personnel;

- the number of shares to be publicly traded;
- future sales or issuances of our common stock, including sales or issuances by us, our officers or directors and our significant stockholders;
- general economic, market and political conditions (such as the effects of the recent COVID-19 global pandemic); and
- other developments affecting us, our industry or our competitors.

These and other factors may cause the market price and demand for shares of our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, in the past, when the market price of a stock has been volatile, holders of that stock sometimes have instituted securities class action litigation against the company that issued the stock. Securities litigation against us, regardless of the merits or outcome, could result in substantial costs and divert the time and attention of our management from our business, which could have a material adverse effect on our business, financial condition and results of operations.

If securities or industry analysts do not publish research or reports about our business or publish inaccurate or negative reports, our stock price could decline.

The trading market for our common stock may be influenced in part by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. If one or more of these analysts initiate research with an unfavorable rating or downgrade our common stock, provide a more favorable recommendation about our competitors, publish inaccurate or unfavorable research about our business or cease coverage of our company, we could lose visibility in the financial markets, which in turn could cause our stock price and trading volume to decline.

As a public company, we may expend additional time and resources to comply with rules and regulations, and failure to comply with such rules may lead investors to lose confidence in our financial data.

We are subject to the reporting requirements of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), the Sarbanes-Oxley Act of 2002, as amended (the "Sarbanes-Oxley Act"), the Dodd-Frank Wall Street Reform and Consumer Protection Act and regulations of the NYSE. We have established and may establish in the future additional procedures and practices required as a public company. Establishing such procedures and practices may increase our legal, accounting and financial compliance costs, may make some activities more difficult, time-consuming and costly and could be burdensome on our personnel, systems and resources. We will devote significant resources to address these public company requirements, including compliance programs and investor relations, as well as our financial reporting obligations. As a result, we have and will continue to incur significant legal, accounting and other expenses that we did not previously incur to comply with these rules and regulations. Furthermore, the need to maintain the corporate infrastructure necessary for a public company may divert some of management’s attention from operating our business and implementing our strategy. However, the measures we take may not be sufficient to satisfy our obligations as a public company. In addition, we may incur significant costs in order to comply with these requirements.

In particular, as a public company, our management is required to conduct an annual evaluation of our internal controls over financial reporting and include a report of management on our internal controls in our annual reports on Form 10-K. In addition, commencing with this 10-K we are required to have our independent registered public accounting firm attest to the effectiveness of our internal controls over financial reporting. We have made, and will continue to make, changes to our internal controls and procedures for financial reporting and accounting systems to meet our reporting obligations. If we are unable to conclude that we have effective internal controls over financial reporting, or if our registered public accounting firm is unable to provide us with an attestation and an unqualified report as to the effectiveness of our internal controls over financial reporting, investors could lose confidence in the reliability of our financial statements, which could result in a decrease in the value of our common stock.

Item 2. Properties

Effective February 11, 2022, our Board of Directors designated 5335 Gate Parkway, Jacksonville, Florida 32256, a property we purchased on June 30, 2021, as our principal executive office. This property also serves as our executive offices. As of December 31, 2021, we lease space in 55 locations, including Center Valley, Pennsylvania, Austin, Texas, Paddington, England and Dublin, Ireland. These locations are geographically distributed worldwide to meet sales and operating needs.

Item 3. Legal Proceedings

General

In the ordinary course of business, we are involved in various pending and threatened litigation and regulatory matters related to our operations, some of which include claims brought by our clients in connection with commercial disputes, defamation claims by subjects of our reporting and employment claims made by our current or former employees. From time to time, we also receive requests for information from various state and federal regulatory authorities, some of which may result in the assessment of fines for violations of regulations or settlements with such authorities requiring a variety of remedies.

On a regular basis we accrue reserves for these claims based on our historical experience and our ability to reasonably estimate and ascertain the probability of any liability. See Note 8 "Contingencies", to the Consolidated Financial Statements included in Item 8 of Part II of this Report, which is incorporated by reference into this Part I, Item 3.

Environmental Matter

In March of 2011, we received a Request for Information from the Environmental Protection Agency ("EPA"), regarding our former printing facility located along the Gowanus Canal. The facility was operated by us as a printing plant between 1914 and 1966, at which time we sold it. In 2010, the adjacent Gowanus Canal was identified by the EPA as a Superfund site under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 ("CERCLA"), to be cleaned and restored. On September 30, 2013, the EPA issued its Record of Decision. The EPA's cost demand to all contributors seeks recovery in two phases, the Remedial Design phase and the implementation of the Remedial Action phase. On March 24, 2014, the EPA issued a Unilateral Administrative Order ("UAO") to 27 potentially responsible parties ("PRPs"), including us, directing the PRPs to perform work at the Gowanus Canal Superfund Site. D&B denied liability, reserved rights and indicated that we will cooperate with the EPA and comply with the UAO. Following an allocation proceeding for the Remedial Design portion of the work, in which certain PRPs participated, the allocator issued an allocation decision on February 28, 2019, in which we were allocated a 0.407% share of the cost of remediation. On April 11, 2019, the EPA issued another UAO to D&B and other PRPs for certain work. D&B again denied liability, reserved rights and indicated that we will cooperate with the EPA and comply with the UAO. On January 28, 2020, EPA issued a UAO to six PRPs ordering completion of Remedial Action for the upper portions of the Canal. D&B was not included in the UAO. On November 16, 2020, EPA issued a news release increasing the estimated cost of the overall cleanup plan for the Gowanus Canal to be over $1.5 billion. However, EPA did not provide information to support this cost estimate. We have accrued total liabilities of approximately $6.1 million in connection with the remediation through December 31, 2021, but the total cost or range of costs associated with this matter, including potential future costs related to natural resource damages, cannot be determined at this time.

Item 4. Mine Safety Disclosures
Not Applicable

Part II

Item 5. Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

Market Information for Common Stock

Shares of our common stock are listed on the New York Stock Exchange ("NYSE") and trade under the symbol "DNB" since the initial public offering of our common stock on July 1, 2020. Prior to that time, there was no public market for our shares.

Holders of Record

As of February 18, 2022, the closing price of our common stock on the NYSE was $18.23 per share and we had 176 holders of record of our common stock. The actual number of shareholders is greater than this number of record holders, and includes shareholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Use of Proceeds and Issuer Purchases of Equity Securities

Unregistered Sales of Equity Securities

None

Issuer Purchases of Equity Securities

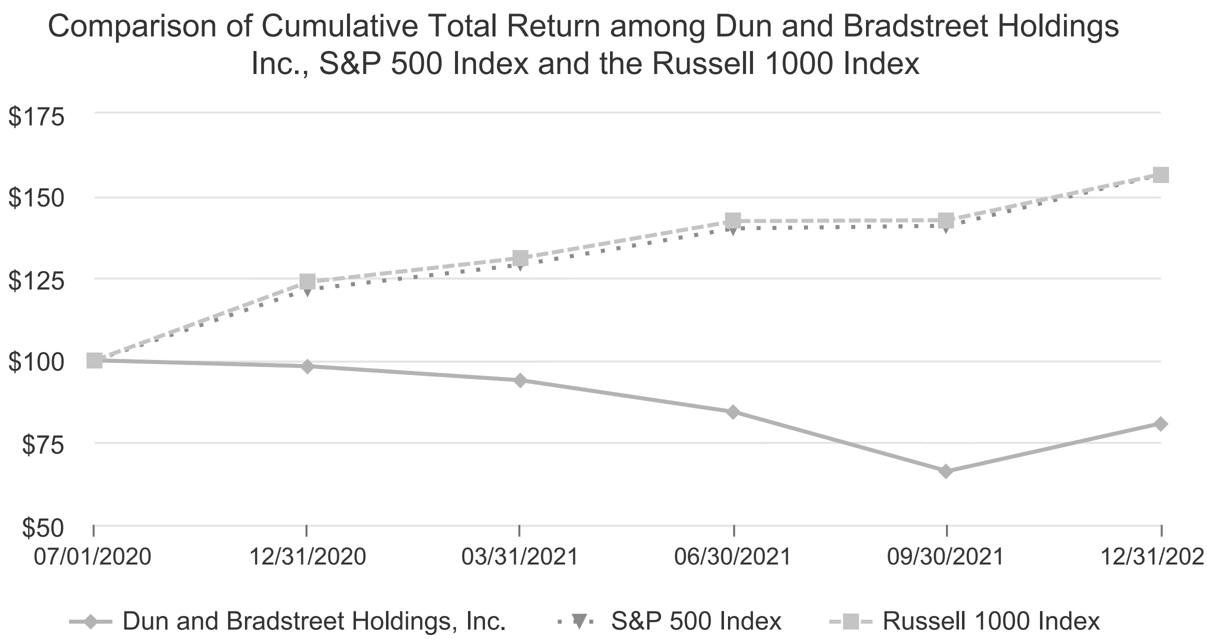
None

Within 120 days after the close of our fiscal year, we intend to file with the SEC a definitive proxy statement pursuant to Regulation 14A of the Exchange Act, which will include information concerning securities authorized for issuance under our equity compensation plans and other matters required by Items 10 through 14 of Part III of this Report.

Cumulative Stock Performance Graph

This performance graph shall not be deemed "soliciting material" or to be “filed” with the SEC for purposes of Section 18 of the Exchange Act or incorporated by reference into any filing of Dun and Bradstreet Holdings, Inc. under the Securities Act.

The graph below compares the cumulative total stockholder return on our common stock with the cumulative total return on the S&P 500 Index and the Russell 1000 Index. The graph assumes $100 was invested at the market close on July 1, 2020, which was the first day our common stock began trading on the NYSE. Data for the S&P 500 Index and the Russell 1000 Index assume reinvestment of dividends. The offering price of our common stock in our IPO, which had a closing stock price of $25.35 on July 1, 2020, was $22.00 per share. The comparisons in the graph below are based upon historical data and are not indicative of, nor intended to forecast, future performance of our common stock.



*$100 invested on July 1, 2020 in Dun & Bradstreet or each respective index, including reinvestment of dividends.

	07/01/2020	12/31/2020	03/31/2021	06/30/2021	09/30/2021	12/31/2021
Dun & Bradstreet Holdings, Inc.	$100	$98	$94	$84	$66	$81
S&P 500 Index	$100	$122	$129	$140	$141	$156
Russell 1000 Index	$100	$124	$131	$142	$143	$157

Item 6. Selected Financial Data

The following table presents our selected historical consolidated financial data and operating statistics. The consolidated statement of operations data for the Successor years ended December 31, 2021 and December 31, 2020, the Successor period from January 1 to December 31, 2019 and the Predecessor period from January 1 to February 7, 2019 and the consolidated balance sheet data as of December 31, 2021 and 2020 have been derived from our audited consolidated financial statements included elsewhere herein. The statement of operations data for the Predecessor years ended December 31, 2018 and 2017 and the consolidated balance sheet data as of December 31, 2019, 2018 and 2017 have been derived from our consolidated financial statements not included elsewhere herein.

Historically our consolidated financial statements which have a year-end of December 31, reflected results of subsidiaries outside of North America on a one-month lag with a year-end of November 30. Effective January 1, 2021, we eliminated the one-month reporting lag for our subsidiaries outside of North America and aligned the year-end for all subsidiaries to December

31. This change was applied retrospectively to all periods since February 8, 2019 ("Successor periods") after the Take-Private Transaction. As a result, financial statements for the Successor periods have been revised to reflect the elimination of the International lag reporting. See further discussion in Note 1 to the consolidated financial statements.

	Successor			Predecessor		
(In millions, except per share data)	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Statement of Operations Data:						
Revenue (1)	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7	$ 1,716.4	$ 1,742.5
Cost of services (exclusive of depreciation and amortization)	664.3	548.2	463.7	56.7	563.4	573.3
Selling and administrative expenses(2)	714.7	559.8	657.6	122.4	610.0	672.4
Depreciation and amortization(3)	615.9	537.8	487.1	11.1	88.7	79.7
Restructuring charge	25.1	37.3	52.3	0.1	25.4	32.1
Operating costs	2,020.0	1,683.1	1,660.7	190.3	1,287.5	1,357.5
Operating income (loss)	145.6	55.6	(221.7)	(11.6)	428.9	385.0
Interest income	0.7	0.7	2.5	0.3	1.9	1.6
Interest expense	(206.4)	(271.1)	(303.5)	(5.5)	(54.4)	(59.7)
Other income (expense) - net	14.9	(11.6)	(153.5)	(86.0)	(3.3)	(4.2)
Non-operating income (expense) - net	(190.8)	(282.0)	(454.5)	(91.2)	(55.8)	(62.3)
Income (loss) before provision (benefit) for income taxes and equity in net income of affiliates	(45.2)	(226.4)	(676.2)	(102.8)	373.1	322.7
Less: provision (benefit) for income taxes	23.4	(112.4)	(118.3)	(27.5)	81.6	179.7
Equity in net income of affiliates	2.7	2.4	4.2	0.5	2.8	2.8
Net income (loss)	(65.9)	(111.6)	(553.7)	(74.8)	294.3	145.8
Less: net (income) loss attributable to the non-controlling	(5.8)	(4.9)	(6.4)	(0.8)	(6.2)	(4.1)
Less: Dividends allocated to preferred stockholders	—	(64.1)	(114.0)	—	—	—
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)	$ 288.1	$ 141.7
Basic earnings (loss) per share of common stock:						
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)	$ 7.76	$ 3.84
Diluted earnings (loss) per share of common stock:						
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)	$ 7.72	$ 3.81
Weighted average number of shares outstanding-basic	428.7	367.1	314.5	37.2	37.1	36.9
Weighted average number of shares outstanding-diluted	428.7	367.1	314.5	37.2	37.3	37.2

(1) On January 1, 2018, we adopted ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("Topic 606") for revenue recognition accounting. Revenue prior to January 1, 2018 was accounted for based on ASU No. 2009-13, "Revenue Recognition (Topic 605)" ("Topic 605") accounting.

(2) Includes transaction costs of $147.4 million and $52.0 million directly attributable to the Take-Private Transaction for the Successor period from January 1, 2019 to December 31, 2019 and the Predecessor period from January 1, 2019 to February 7, 2019, respectively. In addition, for the Predecessor period from January 1, 2019 to February 7, 2019, we incurred $10.4 million to accelerate the vesting of equity-based grants as a result of the Take-Private Transaction.

(3) Higher amortization expenses for the Successor period from January 1, 2019 to December 31, 2019 was primarily due to the application of purchase accounting resulting in higher amortization associated with recognized intangible assets in connection with the Take-Private Transaction.

	Successor			Predecessor	
	December 31,			December 31,	
	2021	2020	2019	2018	2017
Balance Sheet Data(4)(5):					
Cash and cash equivalents	$ 177.1	$ 352.3	$ 84.4	$ 90.2	$ 442.4
Total assets	$ 9,997.2	$ 9,220.3	$ 9,099.9	$ 1,820.9	$ 2,480.9
Total debt (current and long-term)	$ 3,744.8	$ 3,281.1	$ 3,900.8	$ 1,136.6	$ 1,678.1

(4) A balance sheet is not presented as of February 7, 2019. See Note 15 to the consolidated financial statements for purchase price allocation in connection with the Take-Private Transaction.

(5) On January 1, 2019, we adopted Accounting Standard Codification ("ASC") Leases Topic 842 ("Topic 842"). As a result, we recognized all operating leases as right of use assets and lease liabilities on the balance sheet effective January 1, 2019. Leases were accounted for based on ASC Topic 840 ("Topic 840") prior to January 1, 2019.

	Successor			Predecessor		
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2018	Year ended December 31, 2017
Statement of Cash Flows Data:						
Net cash provided by (used in) operating activities	$ 503.7	$ 205.5	$ (70.5)	$ (65.4)	$ 325.4	$ 286.5
Net cash provided by (used in) investing activities	$ (1,078.7)	$ (133.8)	$ (6,156.7)	$ (5.3)	$ (65.3)	$ (206.6)
Net cash provided by (used in) financing activities	$ 400.1	$ 188.6	$ 6,321.7	$ 96.9	$ (609.7)	$ (18.8)

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to help the reader understand the results of operations, financial condition and cash flows of Dun & Bradstreet Holdings, Inc. MD&A is provided as a supplement to, and should be read in conjunction with our audited consolidated financial statements and accompanying notes thereto included elsewhere herein. Unless otherwise noted, all dollar amounts in tables are in millions. This Management's Discussion and Analysis of Financial Condition and Results of Operations contain forward-looking statements. See "Forward-Looking Statements" and "Item 1A.—Risk Factors" for a discussion of the uncertainties, risks and assumptions associated with these statements. Actual results may differ materially from those contained in any forward-looking statements.

Overview

Dun & Bradstreet is a leading global provider of business decisioning data and analytics. Our mission is to deliver a global network of trust, enabling clients to transform uncertainty into confidence, risk into opportunity and potential into prosperity. Clients embed our trusted, end-to-end solutions into their daily workflows to inform commercial credit decisions, confirm suppliers are financially viable and compliant with laws and regulations, enhance salesforce productivity and gain visibility into key markets. Our solutions support our clients' mission critical business operations by providing proprietary and curated data and analytics to help drive informed decisions and improved outcomes.

Leveraging our category-defining commercial credit data and analytics, our Finance & Risk solutions are used in the critical decisioning processes of finance, risk, compliance and procurement departments worldwide. We are a market leader in commercial credit decisioning, with many of the top businesses in the world utilizing our solutions to make informed decisions when considering extending business loans and trade credit. We are also a leading provider of data and analytics to businesses looking to analyze supplier relationships and more effectively collect outstanding receivables. We believe our proprietary Paydex score, a numerical indicator based on promptness of a business's payments to its suppliers and vendors, is widely relied upon as an important measure of credit health for businesses. We are well positioned to provide accessible and actionable insights and analytics that mitigate risk and uncertainty, and ultimately protect and drive increased profitability for our clients.

Our Sales & Marketing solutions combine firmographic, personal contact, intent and non-traditional, or "alternative," data to assist clients in optimizing their sales and marketing strategy by cleansing customer relationship management ("CRM") data and narrowing their focus and efforts on the highest probability prospects. As global competition continues to intensify, businesses need assistance with focusing their sales pipelines into a condensed list so that they can have their best sellers target the highest probability return accounts. We provide invaluable insights into businesses that can help our clients grow their businesses in a more efficient and effective manner.

We leverage these differentiated capabilities to serve a broad set of clients across multiple industries and geographies. As of December 31, 2021, we have a global client base of more than 200,000, including some of the largest companies in the world. Covering nearly all industry verticals, including financial services, technology, communications, government, retail, transportation and manufacturing, our data and analytics support a wide range of use cases. In terms of our geographic footprint, we have an industry-leading presence in North America, a growing presence in the United Kingdom and Ireland ("UK"), Nordics (Sweden, Norway, Denmark and Finland), DACH (Germany, Austria and Switzerland) and CEE (Central and Eastern Europe) regions ("Europe"), Greater China and India through our majority or wholly-owned subsidiaries and a broader global presence through our Worldwide Network alliances ("WWN alliances"). On January 8, 2021, we acquired Bisnode Business Information Group AB ("Bisnode") which expanded our presence in Northern and Central Europe. The acquisition increases our client base, and expands and enhances our constantly expanding business database, known as our "Data Cloud".

We believe that we have an attractive business model that is underpinned by highly recurring, diversified revenue, significant operating leverage, low capital requirements and strong free cash flow. The proprietary and embedded nature of our data and analytics solutions and the integral role that we play in our clients' decision-making processes have historically translated into high client retention and revenue visibility. We also benefit from strong operating leverage given our centralized database and solutions, which allow us to generate strong contribution margins and free cash flow.

Segments

Our segment disclosure is intended to provide the users of our consolidated financial statements with a view of the business that is consistent with management of the Company.

We manage our business and report our financial results through the following two segments:

- North America offers Finance & Risk and Sales & Marketing data, analytics and business insights in the United States and Canada; and

- International offers Finance & Risk and Sales & Marketing data, analytics and business insights directly in the U.K, Europe, Greater China, India and indirectly through our WWN alliances.

Historically our consolidated financial statements which have a year-end of December 31, reflected results of subsidiaries outside of North America on a one-month lag with a year-end of November 30. Effective January 1, 2021, we eliminated the one-month reporting lag for our subsidiaries outside of North America and aligned the year-end for all subsidiaries to December 31. The elimination of this reporting lag represented a change in accounting principle, which the Company believes to be preferable as it provides investors with the most current information. This change in accounting policy was applied retrospectively to all periods since February 8, 2019 ("Successor periods") after the Take-Private Transaction. The Consolidated Balance Sheet as of December 31, 2020, and the Consolidated Statement of Operations and Comprehensive Income (Loss), the Consolidated Statement of Cash Flows, and the Consolidated Statements of Stockholder Equity for the year ended December 31, 2020 and Period from January 1 to December 31, 2019 have been recast to reflect this change in accounting policy. See Note 1 to the consolidated financial statements for further discussion.

Factors Affecting our Results of Operations

Economic Conditions

Our business is impacted by general economic conditions. For example, in the event of a difficult economy, such as the one we are experiencing as a result of the global coronavirus ("COVID-19") pandemic, the probability of businesses, including the businesses of our clients, becoming insolvent increases. Disruptions in the financial markets could limit the ability or willingness of our clients to extend credit to their customers or cause our clients to constrain budgets, which could adversely impact demand for our data and analytics solutions. Further, continuing mandates that employees work remotely, prolonged travel restrictions or general economic uncertainty could negatively impact our suppliers' ability to provide us with data and services, our ability to deliver or market our solutions, our ability to acquire new customers or expand our services with existing customers and client demand for our solutions. In contrast, during such times the need for better insights related to the extension of credit is magnified, and we believe our Finance & Risk solutions become even more critical to our clients. The impacts of a weakened economy on our business, financial condition and results operations, especially as it relates to the COVID-19 global pandemic, is highly uncertain and cannot be predicted. See "Item 1A. Risk Factors".

Regulatory Requirements

In recent years, there has been an increased legislative and regulatory focus on data privacy practices. As a result, federal and state governments have enacted various new laws, rules and regulations. One example of such legislation is the

California Consumer Privacy Act of 2018 ("CCPA") and the California Privacy Rights Act ("CPRA") and similar laws in other U.S. states. The CCPA applies to certain businesses that collect personal information from California residents, and bestows broad rights on individuals, including a right to know what personal information is being collected about them and whether and to whom it is sold, a right to access their personal information and have it deleted, a right to opt out of the sale of their personal information and a right to equal service and price regardless of exercise of these rights. We are also subject to data protection and privacy laws and regulations in countries outside of U.S. where we conduct business. See "Business—Regulatory Matters" in Item 1.

Recent Developments

The following developments impact the comparability of our results of operations, balance sheet and cash flows between years:

Business Acquisitions

On November 15, 2021, we acquired 100% of the outstanding ownership interests in NetWise Data LLC ("NetWise"), a provider of business to business and business to consumer identity graph and audience targeting data. The results of NetWise have been included in our North America segment from the date of the acquisition.

On November 5, 2021, we acquired 100% of the outstanding ownership interests in Eyeota Holdings Pte Ltd ("Eyeota"), a global online and offline data onboarding and transformation company. The results of Eyeota have been included in our North America segment from the date of the acquisition.

On January 8, 2021, we acquired 100% ownership of Bisnode Information Group AB ("Bisnode"). Bisnode is a leading European data and analytics firm and long-standing member of the Dun & Bradstreet WWN alliances. The acquisition increases our client base, and expands and enhances our constantly expanding business database, known as our "Data Cloud". The results of Bisnode have been included in our International segment from the date of the acquisition.

On March 11, 2020, we acquired substantially all of the assets of coAction.com. coAction.com is a leader in revenue cycle management in the order-to-cash process, serving mid to large size companies across multiple industries. The results of coAction.com have been included in our North America segment from the date of the acquisition.

On January 7, 2020, we acquired a 100% ownership interest in Orb Intelligence ("Orb"). Orb is a prominent digital business identity and firmographic data provider, which allows us to better capture the digital footprint of businesses as well as the digital exhaust that businesses generate. The results of Orb have been included in our North America segment from the date of the acquisition.

On July 1, 2019, we acquired a 100% ownership interest in Lattice Engines, Inc. ("Lattice"). Lattice is a leading artificial intelligence powered customer data platform, enabling B2B organizations to scale their account-based marketing and sales programs across every channel. The results of Lattice have been included in our North America segment since the date of the acquisition.

Debt Refinancing

On December 20, 2021, we issued $460 million in aggregate principal amount of 5.000% Senior Unsecured Notes due December 15, 2029. The proceeds from the Senior Unsecured Notes and cash on hand were used to fund the full redemption of the $450 million in aggregate principal amount of our 10.250% Senior Unsecured Notes due 2027, inclusive of an early redemption premium of $29.5 million. As a result of the redemption, we recorded a total expense of $41.8 million related to the debt extinguishment within "Non-operating income (expense)-net" for the year ended December 31, 2021.

On September 26, 2020, we repaid $280 million in aggregate principal amount of our 6.875% Senior Secured Notes, inclusive of a premium of $19.3 million related to the repayment. We recorded a total expense of $25.0 million related to the repayment within “Non-operating income (expense)-net” for the year ended December 31, 2020.

On July 6, 2020, we completed an initial public offering ("IPO") and a concurrent private placement (see Note 1). Total gross proceeds from the transaction were $2,381.0 million. In connection with the IPO and the concurrent private placement, we repaid $300 million in aggregate principal amount of our 10.250% Senior Unsecured Notes on July 6, 2020, inclusive of a premium of $30.8 million related to the repayment. We recorded a total expense of $41.3 million related to the repayment within "Non-operating income (expense)-net" for the year ended December 31, 2020. Upon the closing of the IPO on July 6, 2020, we also redeemed all of the outstanding Series A Preferred Stock and made a total make-whole payment of $205.2 million.

Real Estate Acquisition

On June 30, 2021, we completed the purchase of an office building in Jacksonville, Florida for our new global headquarters office, with a purchase price of $76.6 million, paid in cash. The relocation of the headquarters is part of our strategic investment to grow the company.

COVID-19 Impact

Since early 2020, the COVID-19 pandemic has caused and continues to cause disruptions in supply chains, affecting workforce, production and sales across the world, leading to disruptions and volatility in the global financial markets and economy. Given the continuously evolving and unpredictable nature of the coronavirus, particularly in light of variant strains of the virus, there remains considerable continuing uncertainty regarding the extent of the impact and the duration of the pandemic.

In our continued response to the COVID-19 pandemic, we implemented operational changes to ensure the safety of our workforce and to ensure that we continue to serve our clients. We have adopted a distributed work workforce model which has been successful and has not significantly affected our operations. Further discussion regarding the impact of the pandemic to our operations for the years ended December 31, 2021 and 2020 is provided within this MD&A section.

Given the economic conditions, we continue to carefully monitor the COVID-19 pandemic and its impact on our business. While our productivity and financial performance for the years ended December 31, 2021 and 2020 have not been impacted materially by the pandemic, the ultimate impact will be difficult to predict and depends on, among many factors, the duration of the pandemic, the timing and availability of vaccines and treatments and the government mandates or guidance regarding COVID-19 restriction and its ultimate impact to our customers, vendors, and the financial markets. While near-term uncertainty caused by the COVID-19 pandemic remains, particularly in light of variant strains of the virus, we expect to see improvements in market conditions generally as vaccines and treatments become more widely available. However, we believe the pace of the recovery will vary by geography depending on vaccine distribution, availability of treatment and other macroeconomic factors. We will remain flexible so that we can adjust to events and uncertainties while we continue to move forward.

Coronavirus Aid, Relief, and Economic Security Act ("CARES Act" or "Act")

In response to liquidity issues that businesses are facing as a result of the COVID-19 pandemic, The CARES Act was signed into law on March 27, 2020 by the U.S. government. Among other reliefs, the Act provides assistance to businesses through the modification of rules related to net operating losses and interest expense deductions. Many of these modifications are designed to provide critical cash flow and liquidity to businesses during the COVID-19 pandemic, including allowing the amendment of prior tax returns to obtain tax refunds. The Act also allowed for the deferral of 2020 employer FICA payroll taxes to 2021 and 2022 as well as delaying any federal tax payments due April 15, 2020 and June 15, 2020 until July 15, 2020. The Company utilized the relief opportunities provided by the Act. The application of the Act will result in a net cash benefit of $98.4 million, of which $0.8 million and $57.8 million was reflected in our effective tax rate for the years ended December 31, 2021 and 2020, respectively. We had also deferred 2020 FICA payroll tax payments of approximately $9.5 million, which was fully paid in the third quarter of 2021.

Recently Issued Accounting Standards

See Note 3 to the Consolidated Financial Statements for disclosure of the impact that recent accounting pronouncements may have on the Consolidated Financial Statements.

Critical Accounting Policies and Estimates

In preparing our consolidated financial statements and accounting for the underlying transactions and balances reflected therein, we have applied the significant accounting policies described in Note 2 to the consolidated financial statements. Of those policies, we consider the policies described below to be critical because they are both most important to the portrayal of our financial condition and results, and they require management's subjective or complex judgments, often as a result of the need to make estimates about the effect of matters that are inherently uncertain. We base our estimates on historical experience and on various other factors that we believe to be reasonable under the circumstances. Actual results may differ from these estimates under different assumptions or conditions.

If actual results in a given period ultimately differ from previous estimates, the actual results could have a material impact on such period.

Revenue Recognition

We recognize revenues in accordance with Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 606, Revenue from Contracts with Customers ("ASC 606"). Application of the various accounting principles related to the measurement and recognition of revenue requires us to make judgments and estimates. Specifically, complex arrangements with non-standard terms and conditions may require significant contract interpretation to determine the appropriate accounting, including whether multiple goods and services in the contract are each separate performance obligations. Other judgments include determining whether we are acting as the principal in a transaction, primarily as it relates to transactions with alliances and partners, and whether separate contracts with the same client entered into at or about the same time should be combined into a single contract. We also use judgment to assess whether it is probable we will collect the consideration to which we will be entitled in exchange for the goods or services transferred. We base our judgment on the client’s ability and intention to pay that amount of consideration when it falls due which includes an assessment of their historical payment experience, credit risk indicators and the market and economic conditions affecting the client.

We allocate the transaction price to each performance obligation deliverable based on the relative standalone selling price basis. When the standalone selling price is not directly observable from actual standalone sales, we estimate a standalone selling price making maximum use of any observable data and estimates of what a client in the market would be willing to pay for those goods or services.

Pension and Postretirement Benefit Obligations

Our defined-benefit pension plans are accounted for on an actuarial basis, which requires the selection of various assumptions. For each plan, the most significant assumptions include an expected long-term rate of return on plan assets, a discount rate, mortality rates of participants and expectation of mortality improvement.

The expected long-term rate of return on the plan assets that is utilized in determining pension expense is derived based on target asset allocation as well as expected returns on asset categories of plan investments. For the U.S. Qualified Plan, our most significant pension obligation, the long-term rate of return assumption was 6.00%, 6.50% and 7.00% for 2021, 2020 and 2019, respectively. For 2022, we will use a long-term rate of return of 5.50%. The 5.50% assumption represents our best estimate of the expected long-term future investment performance of the U.S. Qualified Plan, after considering expectations for future capital market returns and the plan’s asset allocation. As of December 31, 2021, the U.S. Qualified Plan was 55% invested in return-seeking assets and 45% invested in liability-hedging assets.

Another key assumption is the discount rate, which is used to measure the present value of pension plan obligations and postretirement health care obligations. The discount rates are derived using a yield curve approach which matches projected plan benefit payment streams with bond portfolios, reflecting actual liability duration unique to our plans. We use the Spot Rate Approach to measure service and interest cost components of net periodic benefit costs by applying the specific spot rates along that yield curve to the plans’ liability cash flows. We believe this approach provides a more precise measurement of service and interest costs by improving the correlation between projected benefit cash flows and their corresponding spot rates on the yield curve.

Mortality assumptions are used to estimate life expectancy of plan participants, determining projected pension obligations and the period over which retirement plan benefits are expected to be paid. For our U.S. plans mortality assumptions, we used PRI 2012 mortality table (“PRI-2012”) at December 31, 2021 and 2020, together with mortality improvement projection scales MP-2021 and MP-2020, respectively. At December 31, 2021, the adoption of the updated mortality improvement scale MP-2021 resulted in a reduction of the projected benefit obligations for the U.S. plans of approximately $5 million. At December 31, 2020, the adoption of the updated mortality improvement scale MP-2020 resulted in a reduction of the projected benefit obligations for the U.S. plans of approximately $11 million.

Changes in the above key assumptions for our global pension plans would have the following effects to our pension obligations at December 31, 2021 (In millions):

	Long-Term Rate of Return		Discount Rate	
	25 Basis Points		25 Basis Points	
	Increase	Decrease	Increase	Decrease
Increase (decrease) in pension cost	$ (3.9)	$ 3.9	$ (2.6)	$ 2.9
Increase (decrease) in pension obligation	$ —	$ —	$ 56.4	$ (59.4)

We believe that the assumptions used are appropriate, though changes in these assumptions would affect our pension and other postretirement obligations and benefit costs.

See Note 10 to the consolidated financial statements for more information regarding costs of, and assumptions for, our pension and postretirement benefit obligations and costs.

Goodwill and Indefinite-Lived Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized and are tested for impairment at least annually at December 31 and more often if an event occurs or circumstances change which indicate it is more likely than not that fair value is less than carrying amount. If a qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit or an indefinite-lived intangible asset exceeds its estimated fair value, an additional quantitative evaluation is performed. The annual impairment tests of goodwill and indefinite-lived intangible assets may be completed through qualitative assessments. We may elect to bypass the qualitative assessment and proceed directly to a quantitative impairment test for goodwill or indefinite-lived intangible assets in any period. We may resume the qualitative assessment for any reporting unit or indefinite-lived intangible asset in any subsequent period.

Goodwill

As of December 31, 2021 and 2020, our consolidated balance sheet included goodwill of $3,493.3 million and $2,857.9 million, respectively. We assess recoverability of goodwill at the reporting unit level. A reporting unit is an operating segment or a component of an operating segment which is a business and for which discrete financial information is available and reviewed by a segment manager. Our reporting units are Finance & Risk and Sales & Marketing within the North America segment, and the U.K., Europe, Greater China, India and our WWN alliances within the International segment.

For the qualitative goodwill impairment test, we analyze actual and projected reporting unit growth trends for revenue and profits, as well as historical performance. We also assess critical factors that may have an impact on the reporting units, including macroeconomic conditions, market-related exposures, regulatory environment, cost factors, changes in the carrying amount of net assets, any plans to dispose of all or part of the reporting unit, and other reporting unit specific factors such as changes in key personnel, strategy, customers or competition. In addition we assess whether the market value of the Company compared to the book amounts are indicative of an impairment.

For quantitative goodwill impairment test, we determine the fair value of our reporting units based on the market approach and also in certain instances using the income approach to further validate our results. Under the market approach, we estimate the fair value based on market multiples of current year EBITDA, adjusted as necessary for non-recurring items, for each individual reporting unit. We use judgment in identifying the relevant comparable company market multiples (i.e., recent divestitures or acquisitions, facts and circumstances surrounding the market, dominance, growth rate, etc.). For the income approach, we use the discounted cash flow method to estimate the fair value of a reporting unit. The projected cash flows are based on management's most recent view of the long-term outlook for each reporting unit. Factors specific to each reporting unit could include revenue growth, profit margins, terminal value, capital expenditure projections, assumed tax rates, discount rates and other assumptions deemed reasonable by management. When applicable, as a reasonableness check, we reconcile the estimated fair values derived in the valuations for the total Company based on the individual reporting units to our total enterprise value (calculated by multiplying the closing price of our common stock by the number of shares outstanding at that time, adjusted for the value of our debt).

Our determination of EBITDA multiples and projected cash flows are sensitive to the risk of future variances due to market conditions as well as business unit execution risks. Management assesses the relevance and reliability of the multiples and projected cash flows by considering factors unique to its reporting units, including recent operating results, business plans, economic projections, anticipated future cash flows, recent market transactions involving comparable businesses and other data. EBITDA multiples and projected cash flows can also be significantly impacted by the future growth opportunities for the reporting unit as well as for the Company itself, general market and geographic sentiment and pending or recently completed merger transactions.

Consequently, if future results fall below our forward-looking projections for an extended period of time, the results of future impairment tests could indicate that impairment exists. Although we believe the multiples of EBITDA in our market approach and the projected cash flows in our income approach are reasonable assumptions about our business, a significant increase in competition or reduction in our competitive capabilities could have a significant adverse impact on our ability to retain market share and thus on the projected values for our reporting units.

An impairment charge is recorded if a reporting unit's carrying value exceeds its fair value. The impairment charge is also limited to the amount of goodwill allocated to the reporting unit. An impairment charge, if any, is recorded as an operating expense in the period that the impairment is identified.

For 2021, 2020 and 2019, we performed qualitative tests for each of our reporting units and the results of our tests indicated that it was not more likely than not that the goodwill in any reporting unit was impaired.

Indefinite-Lived Intangible Assets

Under the qualitative approach, we perform impairment tests for indefinite-lived intangible assets based on macroeconomic and market conditions, industry considerations, overall performance and other relevant factors. If we elect to bypass the qualitative assessment for any indefinite-lived intangible asset, or if a qualitative assessment indicates it is more likely than not that the estimated carrying amount of such asset exceeds its fair value, we proceed to a quantitative approach.

Under the quantitative approach, we estimate the fair value of the indefinite-lived intangible asset and compare it to its carrying value. An impairment loss is recognized if the carrying value exceeds the fair value. The estimated fair value is determined primarily using income approach based on the expected present value of the projected cash flows of the assets.

Our indefinite-lived intangible assets primarily include Dun & Bradstreet trade name which was recognized in connection with the Take-Private Transaction. As a result of the impairment tests performed using quantitative approach, no impairment charges for indefinite-lived intangible assets have been recognized for the years ended December 31, 2021 and 2020, the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor).

Stock-Based Compensation

Stock-based compensation expense is recognized over the award's vesting period on a straight-line basis. The compensation expense is determined based on the grant date fair value. For profit interests and stock option grants, we determine the grant date fair value using the Black Scholes valuation model. During the period subsequent to the Take-Private Transaction and prior to the IPO, our stock was not publicly traded. We did not have a history of market prices for our common stock. Thus, estimating grant date fair value for awards primarily granted in 2019 required us to make assumptions including stock price, expected time to liquidity, expected volatility and discount for lack of marketability. The fair value of the underlying shares and unit grants was determined contemporaneously with the grants.

For our 2019 grants, we determined stock price per unit equal to the closing price of our Class A equity unit price on February 8, 2019, also the closing date of the Take-Private Transaction. Approximately 94% of the units issued in 2019 were granted in February 2019 and March 2019 and almost all of the remaining units were granted by June 2019. As these grant dates were shortly after the Take-Private Transaction closed on February 8, 2019 and there was no indication that the value of our Company changed, we believe it was reasonable to assume the Take-Private Transaction date price approximated the fair value of the enterprise value on each of the grant dates.

For the expected time to liquidity assumption, management estimated, on the valuation date, the earliest expected change of control or liquidity event was approximately 3.5 years. The estimate was based on available facts and circumstances on the valuation date, such as our performance and outlook, investors' strategy and need for liquidity, market conditions, and our financing needs, among other considerations.

For the expected volatility assumption, we utilized the observable data of a group of similar public companies ("peer group") to develop our volatility assumption. The expected volatility of our stock was determined based on the range of the measure of the implied volatility and the historical volatility for our peer group of companies, re-levered to reflect our capital structure and debt, for a period which is commensurate with the expected holding period of the units. Based on this analysis, our weighted average expected volatility rate was 43.9% for the 2019 profit interest grants.

We recognize forfeitures and the corresponding reductions in expense as they occur.

Our stock-based compensation programs are described more fully in Note 11 to the consolidated financial statements.

Fair Value Measurements

Assets and liabilities are subject to fair value measurements in certain circumstances, including purchase accounting applied to assets and liabilities acquired in a business combination and long-lived assets that are written down to fair value when they are impaired. We use the acquisition method of accounting for all business combinations. This method requires us to allocate the cost of the acquisition to the assets acquired and the liabilities assumed based on the estimates of fair value for such items, including intangible assets and technology acquired. The excess of the purchase consideration over the fair value of assets acquired and liabilities assumed is recorded as goodwill. A fair value measurement is determined as the price we would receive to sell an asset or pay to transfer a liability in an orderly transaction between market participants at the measurement date. In the absence of active markets for the identical assets or liabilities, such measurements involve developing assumptions based on market observable data and, in the absence of such data, internal information that is consistent with what market participants would use in a hypothetical transaction that occurs at the measurement date. The determination of fair value often requires us to make significant estimates and assumptions such as determining an appropriate discount rate that factors in both risk and liquidity premiums, identifying the similarities and differences in market transactions, weighting those differences accordingly and then making the appropriate adjustments to those market transactions to reflect the risks specific to the asset or liability being valued. Other significant assumptions include projecting our future cash flows related to revenues and expenses based on our business plans and outlook which can be significantly impacted by our future growth opportunities, general market environment and geographic sentiment. We may use third-party valuation consultants to assist in the determination of such estimates. See Notes 10, 11, 13, 15 and 16 to the consolidated financial statements for further information on fair value measurements and acquisitions.

Income Taxes

As of December 31, 2021 and 2020, our consolidated balance sheet included non-current deferred tax liabilities of $1,207.2 million and $1,106.6 million, respectively. We are subject to income taxes in the United States and many foreign jurisdictions. In determining our consolidated provision for income taxes for financial statement purposes, we must make certain estimates and judgments. These estimates and judgments affect the determination of the recoverability of certain deferred tax assets and the calculation of certain tax liabilities, which arise from temporary differences between the tax and financial statement recognition of revenue and expense and net operating losses.

In evaluating our ability to recover our deferred tax assets, we consider all available positive and negative evidence including our past operating results, as applicable, the existence of cumulative losses in the most recent years and our forecast of future taxable income. In estimating future taxable income, we develop assumptions, including the amount of future pre-tax operating income, the reversal of temporary differences and the implementation of feasible and prudent tax planning strategies. These assumptions require judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

We currently have recorded valuation allowances in certain jurisdictions that we will maintain until it is more likely than not the deferred tax assets will be realized. Our income tax expense recorded in the future may be reduced to the extent of decreases in our valuation allowances. The realization of our remaining deferred tax assets is primarily dependent on future taxable income in the appropriate jurisdiction. Any reduction in future taxable income may require that we record an additional valuation allowance against our deferred tax assets. An increase in the valuation allowance could result in additional income tax expense in such period and could have a significant impact on our future earnings.

Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. Management records the effect of a tax rate or law change on our deferred tax assets and liabilities in the period of enactment. Future tax rate or law changes could have a material adverse effect on our financial condition, results of operations or cash flows.

Key Components of Results of Operations

Revenue

We generate our North America and International segment revenue primarily through subscription-based contractual arrangements that we enter into with clients to provide data, analytics and analytics-related services either individually, or as part of an integrated offering of multiple services. These arrangements occasionally include offerings from more than one business unit to the same client.

- We provide Finance & Risk solutions that offer clients access to our most complete and up-to-date global information, comprehensive monitoring and portfolio analysis. We also provide various business information reports that are consumed in a transactional manner across multiple platforms. Clients also use our services to manage supply chain risks and comply with anti-money laundering and global anti-bribery and corruption regulations.

- We generate our Sales & Marketing revenue by providing sophisticated analytics and solutions to help our clients increase revenue from new and existing businesses, enabling B2B sales and marketing professionals to accelerate sales, enhance go-to-market activity, engage clients in a meaningful way, close business faster and improve efficiency in advertising campaigns.

Expenses

Cost of Services (exclusive of depreciation and amortization)

Cost of services (exclusive of depreciation and amortization) primarily include data acquisition and royalty fees, costs related to our databases, service fulfillment costs, call center and technology support costs, hardware and software maintenance costs, telecommunication expenses, personnel-related costs associated with these functions and occupancy costs associated with the facilities where these functions are performed.

Selling and Administrative Expenses

Selling and administrative expenses primarily include personnel-related costs for sales, administrative and corporate management employees, costs for professional and consulting services, advertising and occupancy and facilities expense of these functions.

Depreciation and Amortization

Depreciation and amortization expenses consist of depreciation related to investments in property, plant and equipment, as well as amortization of purchased and developed software and other intangible assets, principally database and client relationships recognized in connection with the Take-Private Transaction and acquisitions, primarily the Bisnode acquisition completed on January 8, 2021.

Non-Operating Income and Expense

Non-operating income and expense includes interest expense, interest income, costs associated with early debt repayments, dividends from cost-method investments, gains and losses from divestitures, mark-to-market expense related to certain derivatives, and other non-operating income and expenses.

Provision for Income Tax Expense (Benefit)

Provision for income tax expenses (benefit) represents international, U.S. federal, state and local income taxes based on income in multiple jurisdictions for our corporate subsidiaries.

Key Metrics

In addition to reporting GAAP results, we evaluate performance and report our results on the non-GAAP financial measures discussed below. We believe that the presentation of these non-GAAP measures provides useful information to investors and rating agencies regarding our results, operating trends and performance between periods. These non-GAAP financial measures include adjusted revenue, organic revenue, adjusted earnings before interest, taxes, depreciation and amortization ("adjusted EBITDA"), adjusted EBITDA margin, adjusted net income and adjusted net earnings per diluted share. Adjusted results are non-GAAP measures that adjust for the impact due to certain acquisition and divestiture related revenue and expenses, such as costs for banker fees, legal fees, due diligence, retention payments and contingent consideration adjustments, restructuring charges, equity-based compensation, and other non-core gains and charges that are not in the normal course of our business, such as costs associated with early debt redemptions, gains and losses on sales of businesses, impairment charges, the effect of significant changes in tax laws and material tax and legal settlements. We exclude amortization of recognized intangible assets resulting from the application of purchase accounting because it is non-cash and not indicative of our ongoing and underlying operating performance. Recognized intangible assets arise from acquisitions, primarily the Take-Private Transaction. We believe that recognized intangible assets by their nature are fundamentally different from other depreciating assets that are replaced on a predictable operating cycle. Unlike other depreciating assets, such as developed and purchased software licenses or property and equipment, there is no replacement cost once these recognized intangible assets expire and the assets are not replaced. Additionally, our costs to operate, maintain and extend the life of acquired intangible assets and purchased intellectual property are reflected in our operating costs as personnel, data fee, facilities, overhead and similar items. Management believes it is important for investors to understand that such intangible assets were recorded as part of purchase accounting and contribute to revenue generation. Amortization of recognized intangible assets will recur in future periods until such assets have been fully amortized. In addition, we isolate the effects of changes in foreign exchange rates on our revenue growth because we believe it is useful for investors to be able to compare revenue from one period to another, both after and before the effects of foreign exchange rate changes. The change in revenue performance attributable to foreign currency rates is determined by converting both our prior and current periods' foreign currency revenue by a constant rate. As a result, we monitor our adjusted revenue growth both after and before the effects of foreign exchange rate changes. We believe that these supplemental non-GAAP financial measures provide management and other users with additional meaningful financial information that should be considered when assessing our ongoing performance and comparability of our operating results from period to period. Our management regularly uses our supplemental non-GAAP financial measures internally to understand, manage and evaluate our business and make operating decisions. These non-GAAP measures are among the factors management uses in planning for and forecasting future periods. Non-GAAP financial measures should be viewed in addition to, and not as an alternative to our reported results prepared in accordance with GAAP.

Our non-GAAP or adjusted financial measures reflect adjustments based on the following items, as well as the related income tax.

Adjusted Revenue

We define adjusted revenue as revenue to include a revenue adjustment due to the timing of the completion of the Bisnode acquisition. Management uses this measure to evaluate ongoing performance of the business period over period. In addition, we isolate the effects of changes in foreign exchange rates on our revenue growth because we believe it is useful for investors to be able to compare revenue from one period to another, both after and before the effects of foreign exchange rate changes. The change in revenue performance attributable to foreign currency rates is determined by converting both our prior and current periods' foreign currency revenue by a constant rate.

Organic Revenue

We define organic revenue as adjusted revenue before the effect of foreign exchange excluding the net revenue from the acquired businesses for the first twelve months. We believe the organic measure provides investors and analysts with useful supplemental information regarding the Company's underlying revenue trends by excluding the impact of acquisitions.

Adjusted EBITDA and Adjusted EBITDA Margin

We define adjusted EBITDA as net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor) excluding the following items:

- depreciation and amortization;
- interest expense and income;
- income tax benefit or provision;
- other non-operating expenses or income;
- equity in net income of affiliates;
- net income attributable to non-controlling interests;
- dividends allocated to preferred stockholders;
- other incremental or reduced expenses and revenue from the application of purchase accounting (e.g. commission asset amortization);
- equity-based compensation;
- restructuring charges;
- merger and acquisition-related operating costs;
- transition costs primarily consisting of non-recurring expenses associated with transformational and integration activities, as well as incentive expenses associated with our synergy program, primarily in 2020 and 2019;
- legal reserve and costs associated with significant legal and regulatory matters; and
- asset impairment.

We calculate adjusted EBITDA margin by dividing adjusted EBITDA by adjusted revenue.

Adjusted Net Income

We define adjusted net income as net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor) adjusted for the following items:

- incremental amortization resulting from the application of purchase accounting. We exclude amortization of recognized intangible assets resulting from the application of purchase accounting because it is non-cash and is not indicative of our ongoing and underlying operating performance. The Company believes that recognized intangible assets by their nature are fundamentally different from other depreciating assets that are replaced on a predictable operating cycle. Unlike other depreciating assets, such as developed and purchased software licenses or property and equipment, there is no replacement cost once these recognized intangible assets expire and the assets are not replaced. Additionally, the Company's costs to operate, maintain and extend the life of acquired intangible assets and purchased intellectual property are reflected in the Company's operating costs as personnel, data fee, facilities, overhead and similar items;

- other incremental or reduced expenses and revenue from the application of purchase accounting (e.g. commission asset amortization);
- equity-based compensation;
- restructuring charges;
- merger and acquisition-related operating costs;
- transition costs primarily consisting of non-recurring expenses associated with transformational and integration activities, as well as incentive expenses associated with our synergy program, primarily in 2020 and 2019;
- legal reserve and costs associated with significant legal and regulatory matters;
- change in fair value of the make-whole derivative liability associated with the Series A Preferred Stock;
- asset impairment;
- non-recurring pension charges, related to pension settlement charge and actuarial loss amortization eliminated as a result of the Take-Private Transaction;
- dividends allocated to preferred stockholders;
- merger, acquisition and divestiture-related non-operating costs;
- debt refinancing and extinguishment costs; and
- tax effect of the non-GAAP adjustments and the impact resulting from the enactment of the CARES Act. See Note 9 for further details.

Adjusted Net Earnings Per Diluted Share

We calculate adjusted net earnings per diluted share by dividing adjusted net income (loss) by the weighted average number of common shares outstanding for the period plus the dilutive effect of common shares potentially issuable in connection with awards outstanding under our stock incentive plan. For consistency purposes, we assume the stock split effected on June 23, 2020 to be the number of shares outstanding during the Predecessor periods.

Results of Operations

GAAP Results

As a result of the Take-Private Transaction on February 8, 2019, the historical financial statements and information are presented on a Successor and Predecessor basis. In the accompanying consolidated financial statements, references to Predecessor refer to the results of operations and cash flows of The Dun & Bradstreet Corporation and its subsidiaries prior to the closing of the Take-Private Transaction. References to Successor refer to the consolidated financial position of Dun & Bradstreet Holdings, Inc. and its subsidiaries as of December 31, 2021 and 2020, and the results of operations and cash flows of Dun & Bradstreet Holdings, Inc. and its subsidiaries after the Take-Private Transaction for the years ended December 31, 2021 and 2020 and the period from January 1, 2019 to December 31, 2019. During the period from January 1, 2019 to February 7, 2019, Dun & Bradstreet Holdings, Inc. had no significant operations and limited assets and had only incurred transaction related expenses prior to the Take-Private Transaction. The Predecessor and Successor consolidated financial information presented herein is not comparable primarily due to financing of the Take-Private Transaction and the application of acquisition accounting in the Successor financial statements as of February 8, 2019, as further described in Note 15, of which the most significant impacts are (i) transaction costs incurred and the pension settlement charge associated with the Take-Private Transaction; (ii) a shorter Successor period for our International operations for the period from January 1, 2019 to December 31, 2019; (iii) increased amortization expense for the intangible assets; and (iv) additional interest expense associated with debt financing arrangements entered into in connection with the Take-Private Transaction.

To facilitate comparability of the year ended December 31, 2020 to the year ended December 31, 2019, we present below the combination of consolidated results from January 1, 2019 to December 31, 2019, comprising the Successor consolidated results from January 1, 2019 to December 31, 2019, the Predecessor consolidated results for the period from January 1, 2019 to February 7, 2019 and certain pro forma adjustments that give effect to the Take-Private Transaction as if it had occurred on January 1, 2019 (combined pro forma results for the year ended December 31, 2019). These pro forma adjustments are prepared in accordance with Article 11 of Regulation S-X to include additional deferred revenue adjustment, additional amortization related to the recognized intangible assets and additional interest expenses associated with the Successor debt. In addition, non-recurring transaction costs directly attributable to the transaction, acceleration vesting costs related to the Predecessor's restricted stock units, non-recurring pension settlement charge and actuarial loss amortization are eliminated from the respective period. We compare results for the year ended December 31, 2020 (Successor) to the combined pro forma results for the year ended December 31, 2019. We present the information for the year ended December 31, 2019 in this format to assist readers in understanding and assessing the trends and significant changes in our results of operations on a comparable basis. We believe this presentation is appropriate because it provides a more meaningful comparison and more relevant analysis of our results of operations for the years ended December 31, 2021, 2020 and 2019. The following table sets forth our historical results of operations for the periods indicated below (In millions):

	Successor			Predecessor			
	Year ended December 31, 2021	**Year ended December 31, 2020**	**Period from January 1 to December 31, 2019 (1)**	**Period from January 1 to February 7, 2019 (2)**	**Pro Forma Adjustments for the year ended December 31, 2019 (a)**		**Combined Pro Forma for the year ended December 31, 2019**
Revenue (4)	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7	$ (16.0)	(b)	$ 1,601.7
Cost of services (exclusive of depreciation and amortization)	664.3	548.2	463.7	56.7	—		520.4
Selling and administrative expenses	714.7	559.8	657.6	122.4	(212.9)	(c)	567.1
Depreciation and amortization	615.9	537.8	487.1	11.1	45.1	(d)	543.3
Restructuring charge	25.1	37.3	52.3	0.1	—		52.4
Operating costs	2,020.0	1,683.1	1,660.7	190.3	(167.8)		1,683.2
Operating income (loss)	145.6	55.6	(221.7)	(11.6)	151.8		(81.5)
Interest income	0.7	0.7	2.5	0.3	—		2.8
Interest expense	(206.4)	(271.1)	(303.5)	(5.5)	(29.7)	(e)	(338.7)
Other income (expense) - net	14.9	(11.6)	(153.5)	(86.0)	89.5	(f)	(150.0)
Non-operating income (expense) - net	(190.8)	(282.0)	(454.5)	(91.2)	59.8		(485.9)
Income (loss) before provision (benefit) for income taxes and equity in net income of affiliates	(45.2)	(226.4)	(676.2)	(102.8)	211.6		(567.4)
Less: provision (benefit) provision for income taxes	23.4	(112.4)	(118.3)	(27.5)	47.2	(g)	(98.6)
Equity in net income of affiliates	2.7	2.4	4.2	0.5	—		4.7
Net income (loss)	(65.9)	(111.6)	(553.7)	(74.8)	164.4		(464.1)
Less: net (income) loss attributable to the non-controlling interest	(5.8)	(4.9)	(6.4)	(0.8)	—		(7.2)
Less: dividends allocated to preferred stockholders	—	(64.1)	(114.0)	—	(13.7)	(h)	(127.7)
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)	$ 150.7		$ (599.0)
Net income (loss) margin (3)	(3.3)%	(10.4)%	(46.8)%	(42.3)%	N/A		(37.4)%

(1) Successor financials reflect results for North America and International for the period from February 8, 2019 to December 31, 2019 for the period from January 1, 2019 to December 31, 2019. See Note 1 to the consolidated financial statements for further discussion regarding the elimination of International lag reporting applied to successor periods.

(2) Predecessor financials reflect results for North America for the period from January 1, 2019 through February 7, 2019, and for International for the period from December 1, 2018 through January 7, 2019, due to International's one-month lag reporting.

(3) Net income (loss) margin is defined as Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor) divided by Revenue.

(4) See Note 3 to the consolidated financial statements for further discussion regarding the adoption of ASU No. 2021-08, "Business Combinations (Topic 805) Accounting for Contract Assets and Contract Liabilities from Contracts with Customers."

Notes for the Pro Forma Adjustments for the Year Ended December 31, 2019

(a) Pro forma adjustments are prepared to give effect to the Take-Private Transaction as if it had occurred on January 1, 2019. The adjustments are prepared in accordance with Article 11 of Regulation S-X. No adjustment has been made for the "lag" month of International results due to the impact of the one-month lag described in footnote (2) to the above table.

(b) Represents deferred revenue purchase accounting adjustments as a result of the Take-Private Transaction. In accordance with ASC 805, deferred revenue is recognized at fair value representing direct costs to fulfill plus a reasonable margin. The pro forma adjustment reflects the purchase accounting associated with the Take-Private Transaction as if it had occurred on January 1, 2019.

(c) Consists of Successor transaction costs of $147.4 million included in the Successor period from January 1, 2019 to December 31, 2019, Predecessor transaction costs of $52.0 million included in the Predecessor period from January 1, 2019 to February 7, 2019, $3.1 million related to amortization expense associated with deferred commissions and $10.4 million expense associated with the acceleration of Predecessor's stock options and restricted stock units in connection with the Take-Private Transaction. The commission asset purchase accounting adjustment and one-time costs are directly attributable to the Take-Private Transaction.

(d) Represents incremental amortization expenses related to intangible assets recognized as a result of the Take-Private Transaction in accordance with ASC 805, giving effect to the purchase accounting associated with the Take-Private Transaction as if it had occurred on January 1, 2019. The pro forma incremental amortization expenses are calculated based on the fair value of the acquired assets.

(e) Represents incremental interest expenses resulting from the debt issuance in connection with the Take-Private Transaction, giving effect to the transaction as if it had occurred on January 1, 2019.

(f) Eliminates non-recurring pension settlement charge of $85.8 million related to Dun & Bradstreet's then-existing U.S. Non-Qualified Plan, eliminates $3.8 million of actuarial loss amortization as a result of unrecognized actuarial losses as of February 8, 2019 being set to zero in accordance with ASC 805 and records $0.1 million additional amortization expense related to deferred issuance costs associated with our revolving credit facility, giving effect to the Take-Private Transaction as if it had occurred on January 1, 2019.

(g) Represents net tax effect of the above pro forma adjustments. A blended statutory tax rate of 22.3% is applied to the pro forma adjustments.

(h) Provides for additional preferred dividends for the period from January 1, 2019 to February 7, 2019, giving effect to the Take-Private Transaction as if it had occurred on January 1, 2019.

Key Performance Measures

Management, including our Chief Operating Decision Makers, evaluates the financial performance of our businesses based on a variety of key indicators. These indicators include the non-GAAP measures adjusted revenue, organic revenue, adjusted EBITDA, adjusted EBITDA margin, adjusted net income, and adjusted net earnings per diluted share. Adjusted results are non-GAAP measures that adjust for the impact due to certain acquisition and divestiture related revenue and expenses, such as costs for banker fees, legal fees, due diligence, retention payments and contingent consideration adjustments, restructuring charges, equity-based compensation, and other non-core gains and charges that are not in the normal course of our business, such as costs associated with early debt redemptions, gains and losses on sales of businesses, impairment charges, the effect of significant changes in tax laws and material tax and legal settlements. In addition, we isolate the effects of changes in foreign exchange rates on our revenue growth because we believe it is useful for investors to be able to compare revenue from one period to another, both after and before the effects of foreign exchange rate changes. The change in revenue performance attributable to foreign currency rates is determined by converting both our prior and current periods' foreign currency by a constant rate. As a result, we monitor our adjusted revenue growth both after and before the effects of foreign exchange rate changes.

The table below sets forth our key performance measures for the periods indicated (In millions, except per share data):

	Successor			Predecessor		
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Pro Forma Adjustments for the year ended December 31, 2019 (a)	Combined Pro Forma for the year ended December 31, 2019
Non - GAAP Financial Measures						
Adjusted revenue (a)	$ 2,170.2	$ 1,738.7	$ 1,439.0	$ 178.7	$ (16.0)	$ 1,601.7
Organic revenue (a)	$ 1,822.6	$ 1,744.9	$ 1,446.6	$ 179.7	$ (16.0)	$ 1,610.3
Adjusted EBITDA (a)	$ 847.1	$ 711.4	$ 505.1	$ 63.6	$ (16.0)	$ 552.7
Adjusted EBITDA margin (a)	39.0 %	40.9 %	35.1 %	35.6 %	— %	34.5 %
Adjusted net income (a)	$ 471.1	$ 346.6	$ 143.5	$ 43.0	$ (12.4)	$ 174.1
Adjusted earnings per share (a)	$ 1.10	$ 0.94	$ 0.46	$ 0.14	$ (0.04)	$ 0.55
(a) Including impact of deferred revenue purchase accounting adjustments:						
Impact to adjusted revenue, organic revenue and adjusted EBITDA	$ (0.2)	$ (21.1)	$ (138.9)	$ —	$ (16.0)	$ (154.9)
Impact to adjusted EBITDA margin	— %	(0.7)%	(5.7)%	— %	N/A	(5.8)%
Net impact to adjusted net income	$ (0.2)	$ (15.7)	$ (103.0)	$ —	$ (12.4)	$ (115.4)
Net impact to adjusted earnings per share	$ —	$ (0.04)	$ (0.33)	$ —	N/A	$ (0.37)

(a) In the fourth quarter of 2021, we early adopted ASU No. 2021-08, "Business Combinations (Topic 805) Accounting for Contract Assets and Contract Liabilities from Contracts with Customers," retrospectively to all business combinations during 2021. As a result, acquired deferred revenue balances were measured based on the guidance of ASC 606.

Reconciliations of the above non-GAAP financial measures to the most directly comparable GAAP financial measures are presented in the tables below (In millions, except per share data):

	Successor			Predecessor		
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Pro Forma Adjustments for the year ended December 31, 2019	Combined Pro Forma for the year ended December 31, 2019
GAAP revenue	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7	$ (16.0)	$ 1,601.7
Revenue adjustment due to the Bisnode acquisition close timing	4.6	—	—	—	—	—
Adjusted revenue (a)	2,170.2	1,738.7	1,439.0	178.7	(16.0)	1,601.7
Foreign currency impact	3.1	6.2	7.6	1.0	—	8.6
Adjusted revenue before the effect of foreign currency	$ 2,173.3	$ 1,744.9	$ 1,446.6	$ 179.7	$ (16.0)	$ 1,610.3
Net revenue from acquisitions- before the effect of foreign currency	(350.7)	—	—	—	—	—
Organic revenue - before the effect of foreign currency (a)	$ 1,822.6	$ 1,744.9	$ 1,446.6	$ 179.7	$ (16.0)	$ 1,610.3
North America	$ 1,499.4	$ 1,460.0	$ 1,317.5	$ 148.2	$ —	$ 1,465.7
International	671.0	299.8	260.4	30.5	—	290.9
Segment revenue	2,170.4	1,759.8	1,577.9	178.7	—	1,756.6
Corporate and other	(0.2)	(21.1)	(138.9)	—	(16.0)	(154.9)
Foreign currency impact	3.1	6.2	7.6	1.0	—	8.6
Adjusted revenue before the effect of foreign currency	$ 2,173.3	$ 1,744.9	$ 1,446.6	$ 179.7	$ (16.0)	$ 1,610.3
Net revenue from acquisitions - before the effect of foreign currency	(350.7)	—	—	—	—	—
Organic revenue - before the effect of foreign currency (a)	$ 1,822.6	$ 1,744.9	$ 1,446.6	$ 179.7	$ (16.0)	$ 1,610.3
(a) Including impact of deferred revenue purchase accounting adjustments	$ (0.2)	$ (21.1)	$ (138.9)	$ —	$ (16.0)	$ (154.9)

	Successor			Predecessor		
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Pro Forma Adjustments for the year ended December 31, 2019	Combined Pro Forma for the year ended December 31, 2019
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)	$ 150.7	$ (599.0)
Depreciation and amortization	615.9	537.8	487.1	11.1	45.1	543.3
Interest expense - net	205.7	270.4	301.0	5.2	29.7	335.9
(Benefit) provision for income tax - net	23.4	(112.4)	(118.3)	(27.5)	47.2	(98.6)
EBITDA	773.3	515.2	(4.3)	(86.8)	272.7	181.6
Other income (expense) - net	(14.9)	11.6	153.5	86.0	(89.5)	150.0
Equity in net income of affiliates	(2.7)	(2.4)	(4.2)	(0.5)	—	(4.7)
Net income (loss) attributable to non-controlling interest	5.8	4.9	6.4	0.8	—	7.2
Dividends allocated to preferred stockholders	—	64.1	114.0	—	13.7	127.7
Other incremental or reduced expenses and revenue from the application of purchase accounting	(12.9)	(18.8)	(21.2)	—	(3.1)	(24.3)
Equity-based compensation	33.3	45.1	11.7	11.7	(10.4)	13.0
Restructuring charges	25.1	37.3	52.3	0.1	—	52.4
Merger and acquisition-related operating costs	14.1	14.1	161.1	52.0	(199.4)	13.7
Transition costs	11.6	31.9	32.3	0.3	—	32.6
Legal expense associated with significant legal and regulatory matters	12.8	3.9	(0.2)	—	—	(0.2)
Asset impairment	1.6	4.5	3.7	—	—	3.7
Adjusted EBITDA	$ 847.1	$ 711.4	$ 505.1	$ 63.6	$ (16.0)	$ 552.7
North America	$ 715.3	$ 696.2	$ 629.9	$ 60.4	$ —	$ 690.3
International	194.1	91.0	87.8	12.5	—	100.3
Corporate and other (a)	(62.3)	(75.8)	(212.6)	(9.3)	(16.0)	(237.9)
Adjusted EBITDA (a)	$ 847.1	$ 711.4	$ 505.1	$ 63.6	$ (16.0)	$ 552.7
(a) Including impact of deferred revenue purchase accounting adjustments:						
Impact to adjusted EBITDA	$ (0.2)	$ (21.1)	$ (138.9)	$ —	$ (16.0)	$ (154.9)

	Successor			Predecessor		
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Pro Forma Adjustments for the year ended December 31, 2019	Combined Pro Forma for the year ended December 31, 2019
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)	$ 150.7	$ (599.0)
Dividends allocated to preferred stockholders	—	64.1	114.0	—	13.7	127.7
Incremental amortization of intangible assets resulting from the application of purchase accounting	535.7	475.3	437.9	3.0	45.1	486.0
Other incremental or reduced expenses and revenue from the application of purchase accounting	(12.9)	(18.8)	(21.2)	—	(3.1)	(24.3)
Equity-based compensation	33.3	45.1	11.7	11.7	(10.4)	13.0
Restructuring charges	25.1	37.3	52.3	0.1	—	52.4
Merger and acquisition-related operating costs	14.1	14.1	161.1	52.0	(199.4)	13.7
Transition costs	11.6	31.9	32.3	0.3	—	32.6
Legal expense associated with significant legal and regulatory matters	12.8	3.9	(0.2)	—	—	(0.2)
Change in fair value of make-whole derivative liability	—	32.8	172.4	—	—	172.4
Asset impairment	1.6	4.5	3.7	—	—	3.7
Merger and acquisition-related non-operating (gain) costs	2.2	(23.5)	(0.8)	—	—	(0.8)
Non-recurring pension charges	—	0.6	—	89.4	(89.5)	(0.1)
Predecessor pro forma incremental interest expense	—	—	—	—	29.7	29.7
Debt refinancing and extinguishment costs	43.0	76.6	—	—	—	—
Tax impact of the CARES Act	(0.8)	(57.8)	—	—	—	—
Tax effect of the non-GAAP and pro forma adjustments	(122.9)	(158.9)	(145.6)	(37.9)	50.8	(132.7)
Adjusted net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor) (a)	$ 471.1	$ 346.6	$ 143.5	$ 43.0	$ (12.4)	$ 174.1
Adjusted diluted earnings (loss) per share of common stock	$ 1.10	$ 0.94	$ 0.46	$ 0.14	$ (0.04)	$ 0.55
Weighted average number of shares outstanding - diluted (b)	429.8	367.3	314.5	314.5	314.5	314.5
(a) Including impact of deferred revenue purchase accounting adjustments:						
Pre-tax impact	$ (0.2)	$ (21.1)	$ (138.9)	$ —	$ (16.0)	$ (154.9)
Tax impact	—	5.4	35.9	—	3.6	39.5
Net impact to adjusted net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (0.2)	$ (15.7)	$ (103.0)	$ —	$ (12.4)	$ (115.4)
Net impact to adjusted diluted earnings (loss) per share of common stock	$ —	$ (0.04)	$ (0.33)	$ —	N/A	$ (0.37)

(b) For consistency purposes, we assume the stock split effected on June 23, 2020 to be the number of shares outstanding during the Predecessor periods.

Revenue

Year Ended December 31, 2021 versus Year Ended December 31, 2020

Total revenue was $2,165.6 million for the year ended December 31, 2021, compared to $1,738.7 million for the year ended December 31, 2020, an increase of $426.9 million, or 24.5% (24.3% before the effect of foreign exchange). Excluding the positive impact of foreign exchange of $3.1 million, the increase in revenue of $423.8 million was largely due to the net impact of acquisitions of Bisnode, Eyeota and NetWise, which contributed net revenue of $350.7 million. Adjusted revenue increased $431.5 million, or 24.8% (24.6% before the effect of foreign exchange) for the year ended December 31, 2021, compared to the prior year.

Excluding the net impact of acquisitions, total organic revenue increased $77.7 million, or 4.5%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily reflecting growth in our business. Also contributing to the increase was the net impact of lower deferred revenue purchase accounting adjustments of $20.9 million. The changes in revenue are discussed further in the segment level discussion below.

Revenue by segment was as follows (In millions):

	Year ended December 31, 2021	Year ended December 31, 2020	$ Increase (Decrease)	% Increase (Decrease)
North America:				
Finance & Risk	$ 834.7	$ 811.2	$ 23.5	2.9 %
Sales & Marketing	664.7	648.8	15.9	2.4 %
Total North America	$ 1,499.4	$ 1,460.0	$ 39.4	2.7 %
International:				
Finance & Risk	$ 430.3	$ 244.0	$ 186.3	76.4 %
Sales & Marketing	240.7	55.8	184.9	330.9 %
Total International	$ 671.0	$ 299.8	$ 371.2	123.8 %
Corporate and other:				
Finance & Risk	$ (2.2)	$ (10.8)	$ 8.6	**
Sales & Marketing	(2.6)	(10.3)	7.7	**
Total Corporate and other (2)	$ (4.8)	$ (21.1)	$ 16.3	**
Total Revenue:				
Finance & Risk	$ 1,262.8	$ 1,044.4	$ 218.4	20.9 %
Sales & Marketing	902.8	694.3	208.5	30.0 %
Total Revenue	$ 2,165.6	$ 1,738.7	$ 426.9	24.5 %

** Not Meaningful

North America Segment

For the year ended December 31, 2021, North America revenue increased $39.4 million, or 2.7% (2.6% before the effect of foreign exchange), compared to the year ended December 31, 2020. Excluding the positive impact of foreign exchange of $2.1 million and the net impact of acquisitions which contributed revenue of $6.7 million, North America organic revenue increased $30.6 million, or 2.1%. See further discussion below on revenue by solutions.

Finance & Risk

For the year ended December 31, 2021, North America Finance & Risk revenue increased $23.5 million, or 2.9% (2.7% before the effect of foreign exchange), compared to the year ended December 31, 2020. Excluding the positive impact of foreign exchange of $1.6 million and the negative impact of $3.8 million primarily related to the Bisnode acquisition, North America Finance & Risk organic revenue increased $25.7 million, or 3.2%, primarily due to a net increase in revenue across our Finance solutions and Risk solutions of approximately $28 million, principally attributable to new business and higher customer spend, partially offset by lower revenue of approximately $3 million attributable to the impact of COVID-19.

Sales & Marketing

For the year ended December 31, 2021, North America Sales & Marketing revenue increased $15.9 million, or 2.4% (both after and before the effect of foreign exchange), compared to the year ended December 31, 2020. Excluding the positive impact of foreign exchange of $0.5 million and the net impact of acquisitions which contributed revenue of $10.5 million, North America Sales & Marketing organic revenue increased $4.9 million, or 0.7%, primarily driven by a net increase in revenue across our Sales & Marketing solutions of approximately $17 million largely attributable to higher data sales, partially offset by lower royalty revenue of approximately $12 million from the Data.com legacy partnership.

International Segment

For the year ended December 31, 2021, International revenue increased $371.2 million, or 123.8% (121.9% increase before the effect of foreign exchange) compared to the year ended December 31, 2020. Excluding the positive impact of foreign exchange of $1.0 million, increased revenue of $370.2 million was primarily due to the net impact of the Bisnode acquisition which contributed revenue of $344.0 million. Excluding the net impact of the Bisnode acquisition, International organic revenue increased $26.2 million, or 8.6%. See further discussion below on revenue by solutions.

Finance & Risk

For the year ended December 31, 2021, International Finance & Risk revenue increased $186.3 million, or 76.4% (74.2% increase before the effect of foreign exchange) compared to the year ended December 31, 2020. Excluding the positive impact of foreign exchange of $2.9 million, increased revenue of $183.4 million was primarily due to the net impact of the Bisnode acquisition which contributed revenue of $165.9 million. Excluding the net impact of the Bisnode acquisition, International Finance & Risk organic revenue increased $17.5 million, or 7.1%. The increase in organic revenue was a result of positive growth across all markets, including higher revenue of approximately $5 million from WWN alliances due to higher cross border data fees and product royalties, and higher revenue from our U.K. and Greater China markets of approximately $6 million attributable to growth from our Risk and Compliance offerings and approximately $3 million attributable to growth from D&B Credit.

Sales and Marketing

For the year ended December 31, 2021, International Sales & Marketing revenue increased $184.9 million, or 330.9% (329.7% increase before the effect of foreign exchange) compared to the year ended December 31, 2020. Excluding the negative impact of foreign exchange of $1.9 million, increased revenue of $186.8 million was primarily due to the net impact of the Bisnode acquisition which contributed revenue of $178.1 million. Excluding the net impact of the Bisnode acquisition, International Sales & Marketing organic revenue increased $8.7 million, or 15.4%. The increase in organic revenue was a result of positive growth across all markets, including approximately $5 million of growth across our U.K. and Greater China markets driven by newer API offerings as well as increased revenue from WWN product royalties of approximately $3 million.

Consolidated Operating Costs

Consolidated operating costs were as follows (In millions):

	Year ended December 31, 2021	Year ended December 31, 2020	$ Increase (Decrease)	% Increase (Decrease)
Cost of services (exclusive of depreciation and amortization)	$ 664.3	$ 548.2	$ 116.1	21.2 %
Selling and administrative expenses	714.7	559.8	154.9	27.7 %
Depreciation and amortization	615.9	537.8	78.1	14.5 %
Restructuring charges	25.1	37.3	(12.2)	(32.9)%
Operating costs	$ 2,020.0	$ 1,683.1	$ 336.9	20.0 %
Operating income (loss)	$ 145.6	$ 55.6	$ 90.0	161.8 %

Cost of Services (exclusive of depreciation and amortization)

Cost of services (exclusive of depreciation and amortization) increased $116.1 million, or 21.2%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to increased costs of $130.5 million from acquisitions that closed during 2021, largely attributable to the acquisition of Bisnode on January 8, 2021. Excluding the impact of the acquisitions, cost of services (exclusive of depreciation and amortization) decreased $14.4 million, or 2.6%, due to lower net personnel costs of approximately $13 million.

Selling and Administrative Expenses

Selling and administrative expenses increased $154.9 million, or 27.7%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to increased costs of $153.9 million from acquisitions that closed during 2021, largely attributable to the acquisition of Bisnode on January 8, 2021. Excluding the impact of the acquisitions, selling and administrative expenses increased $1.0 million, or less than 1%, due to higher professional fees of approximately $8 million attributable to legal costs related to an ongoing regulatory matter, higher costs of approximately $7 million related to enterprise management software services as we migrate to a modern technology platform, and higher public company costs of approximately $5 million. The above-mentioned higher costs were partially offset by lower costs of approximately $16 million resulting from our ongoing cost management efforts primarily related to facility management and travel related expenses.

Depreciation and Amortization

Depreciation and amortization increased $78.1 million, or 14.5%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to additional amortization related to the increase in the carrying values of amortizable intangible assets after the application of purchase accounting in connection with acquisitions that closed during 2021, largely attributable to the Bisnode acquisition on January 8, 2021.

Restructuring Charges

Restructuring charges decreased $12.2 million, or 32.9%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to higher exist costs in the prior year to consolidate or close facilities.

Operating Income (Loss)

Consolidated operating income increased $90.0 million, or 161.8%, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to acquisitions that closed during 2021 which contributed $22.7 million to the current year. Excluding the impact of the 2021 acquisitions, operating income improved $67.3 million, or 121.0% primarily due to higher revenue of approximately $44 million, which includes $20.9 million attributable to the net impact of lower deferred revenue adjustments.

Adjusted EBITDA and adjusted EBITDA margin by segment was as follows (In millions):

	Year ended December 31, 2021	Year ended December 31, 2020	$ Increase (Decrease)	% Increase (Decrease)
North America:				
Adjusted EBITDA	$ 715.3	$ 696.2	$ 19.1	2.8 %
Adjusted EBITDA margin	47.7 %	47.7 %		— bps
International:				
Adjusted EBITDA	$ 194.1	$ 91.0	$ 103.1	113.4 %
Adjusted EBITDA margin	28.9 %	30.3 %		(140)bps
Corporate and other:				
Adjusted EBITDA	$ (62.3)	$ (75.8)	$ 13.5	17.7 %
Consolidated total:				
Adjusted EBITDA	$ 847.1	$ 711.4	$ 135.7	19.1 %
Adjusted EBITDA margin	39.0 %	40.9 %		(190)bps
Net income (loss) margin	(3.3)%	(10.4)%		710 bps

Consolidated net loss margin was 3.3% and 10.4% for the years ended December 31, 2021 and 2020, respectively, an improvement of 710 basis points. Consolidated adjusted EBITDA was $847.1 million for the year ended December 31, 2021, compared to $711.4 million for the year ended December 31, 2020, an increase of $135.7 million, or 19.1%. Higher adjusted EBITDA for the year ended December 31, 2021 compared to the prior year was primarily due to the net impact of acquisitions that closed in 2021, largely attributable to the Bisnode acquisition completed on January 8, 2021, revenue growth from the underlying business and lower net purchase accounting deferred revenue adjustments of $20.9 million, which had a positive impact of 70 basis points on the year over year margin change. In addition, the improvement in adjusted EBITDA was attributable to lower costs related to facility management and travel related expenses resulting from ongoing cost management efforts, partially offset by higher net data and data processing fees and higher public company costs. Consolidated adjusted EBITDA margin was 39.0% for the year ended December 31, 2021 compared to 40.9% for the year ended December 31, 2020, a decline of 190 basis points.

North America Segment

North America adjusted EBITDA was $715.3 million for the year ended December 31, 2021, compared to $696.2 million for the year ended December 31, 2020, an increase of $19.1 million, or 2.8%. The improvement in adjusted EBITDA was primarily due to revenue growth from the underlying business, lower costs resulting from ongoing cost management efforts, partially offset by higher net data and data processing fees. Adjusted EBITDA margin was 47.7% for the year ended December 31, 2021, flat compared to the prior year.

International Segment

International adjusted EBITDA was $194.1 million for the year ended December 31, 2021, compared to $91.0 million for the year ended December 31, 2020, an increase of $103.1 million, or 113.4%. The improvement in adjusted EBITDA was primarily due to the net impact of the Bisnode acquisition completed on January 8, 2021, organic revenue growth across our International businesses and lower data costs, partially offset by higher net personnel costs. Adjusted EBITDA margin was 28.9% for the year ended December 31, 2021, a decrease of 140 basis points compared to the prior year.

Corporate and Other

Corporate adjusted EBITDA was a loss $62.3 million for the year ended December 31, 2021, compared to a loss of $75.8 million for the year ended December 31, 2020, an improvement of $13.5 million, or 17.7%. The improvement was primarily due to the net impact of lower purchase accounting deferred revenue adjustments of $20.9 million, partially offset by higher public company costs.

Interest Income (Expense) — Net

Interest income (expense) – net was as follows (In millions):

	Year ended December 31, 2021	Year ended December 31, 2020	$ Change	% Change
Interest income	$ 0.7	$ 0.7	$ —	— %
Interest expense	(206.4)	(271.1)	64.7	(24)%
Interest income (expense) – net	$ (205.7)	$ (270.4)	$ 64.7	(24)%

Interest expense decreased $64.7 million for the year ended December 31, 2021, compared to the prior year period. The decrease was primarily due to lower interest rates resulting from Term Loan repricing and lower LIBOR for the year ended December 31, 2021. In addition, during the year ended December 31, 2021 we had less debt outstanding and lower write off of debt issuance costs and discount in connection with early redemption of debt. See Note 6 for further discussion.

Other Income (Expense) — Net

Other income (expense) - net was as follows (In millions):

	Year ended December 31, 2021	Year ended December 31, 2020	$ Increase (Decrease)	% Increase (Decrease)
Non-operating pension income (expense)	$ 53.7	$ 46.2	$ 7.5	16 %
Change in fair value of make-whole derivative liability	—	(32.8)	32.8	(100)%
Debt redemption premium	(29.5)	(50.1)	20.6	(41)%
Miscellaneous other income (expense) – net	(9.3)	25.1	(34.4)	(137)%
Other income (expense) – net	$ 14.9	$ (11.6)	$ 26.5	(228)%

Non-operating pension income (expense) was an income of $53.7 million for the year ended December 31, 2021, compared to an income of $46.2 million for the year ended December 31, 2020, an increase of $7.5 million, primarily due to lower interest costs in the current year period.

The change in fair value of make-whole derivative liability relates to the valuation of a derivative bifurcated in accordance with GAAP from the Series A Preferred Stock that was issued in February 2019 to finance the Take-Private Transaction. Beginning in November 2019, we determined that there was a more than remote likelihood that the Series A Preferred Stock would become redeemable before November 8, 2021, which would trigger a make-whole payment. We recorded a loss of $32.8 million for the year ended December 31, 2020 to adjust the fair value of the make-whole derivative liability based on management’s estimate of probability and timing of the triggering event associated with the make-whole derivative liability. Upon the closing of the IPO on July 6, 2020 (see further discussion in Note 1), we redeemed all of the outstanding Series A Preferred Stock as required by the Certificate of Designation. In addition, we made the total make-whole payment of $205.2 million.

The change in miscellaneous other income (expense) - net of $34.4 million for the year ended December 31, 2021, compared to the year ended December 31, 2020, was primarily driven by a gain recorded in the prior year associated with the change in fair value related to the foreign currency collar we entered into in connection with the Bisnode acquisition and higher foreign currency exchange gains in the prior year related to the revaluation of our intercompany loans.

Provision for Income Taxes

Effective tax rate for the year ended December 31, 2019	17.5 %
Impact of uncertain tax positions	(0.4)
Impact of income earned in non U.S. jurisdictions	2.2
Impact of non-deductible charges	2.1
Impact of non-deductible change in fair value of make-whole derivative liability for the Series A Preferred Stock	2.3
Impact of tax credits and deductions	4.9
Impact of GILTI Inclusion	(3.9)
Impact of change in state tax	2.3
Impact of valuation allowance(4)	(4.2)
Impact of CARES Act	25.5
Other	1.3
Effective tax rate for the year ended December 31, 2020	49.6 %
Impact of uncertain tax positions	1.5
Impact of income earned in non-U.S. jurisdictions (1)	19.6
Impact of non-deductible charges	(12.7)
Impact of non-deductible change in fair value of make-whole derivative liability for the Series A Preferred Stock	3.0
Impact of tax credits and deductions (2)	23.7
Impact of GILTI Inclusion (2)	(43.4)
Impact of change in state tax (3)	(63.7)
Impact of valuation allowance (4)	(2.7)
Impact of CARES Act	(25.5)
Other	(1.2)
Effective tax rate for the year ended December 31, 2021	(51.8)%

(1) Primarily due to higher pre-tax income from our non-U.S. jurisdictions which have lower statutory tax rates.

(2) Primarily due to the impact of lower consolidated pre-tax loss for the year ended December 31, 2021 compared to the year ended December 31, 2020.

(3) Primarily related to higher state tax in the state of Florida.

(4) The impact was related to the release of valuation allowance for net operating losses.

Net Income (Loss)

Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. was a net loss of $71.7 million for the year ended December 31, 2021, compared to a net loss of $180.6 million for the year ended December 31, 2020. The improvement of $108.9 million for the year ended December 31, 2021, compared to the prior year, was primarily due to:

- improvement in operating income (loss) of $90.0 million in the current year largely due to higher revenue from our underlying businesses and lower deferred revenue purchase accounting adjustments, the impact of acquisitions that closed in 2021 and lower personnel, facility and travel costs discussed in more detail within the operating income (loss) section of the MD&A;
- preferred dividends of $64.1 million allocated to preferred stockholders in the prior year period related to the Series A Preferred Stock;
- loss of $32.8 million in the prior year related to the change in the fair value of the make-whole derivative liability recorded in connection with the make-whole provision for the Series A Preferred Stock;
- lower interest expense of $64.7 million in the current year; and
- lower debt early redemption premium of $20.6 million in the current year;

partially offset by

- higher income tax provision of $135.8 million for the year ended December 31, 2021. The prior year tax benefit was primarily a result of the CARES Act; and

- higher gain of $34.4 million in the prior year primarily resulting from fair value change related to the foreign currency collar we entered into in connection with the Bisnode acquisition and foreign currency exchange gains related to the revaluation of our intercompany loans.

Adjusted Net Income and Adjusted Diluted Earnings Per Share

Adjusted net income was $471.1 million for the year ended December 31, 2021 compared to $346.6 million for the year ended December 31, 2020, an increase of $124.5 million, or 35.9%. Adjusted net earnings per share was $1.10 in the year ended December 31, 2021 compared to $0.94 for the year ended December 31, 2020, an increase of $0.16, or 17.0%. The increase was primarily driven by higher revenue from our underlying businesses, the net impact of lower deferred revenue adjustment in the current year, lower facility and travel costs primarily driven by ongoing cost management and lower interest expense, partially offset by higher tax provision, higher net data and data processing costs discussed within the adjusted EBITDA and adjusted EBITDA margin section of the MD&A.

Year Ended December 31, 2020 versus Year Ended December 31, 2019

Total revenue was $1,738.7 million for the year ended December 31, 2020 (Successor), $1,439.0 million for the period from January 1, 2019 to December 31, 2019 (Successor), and $178.7 million for the period from January 1, 2019 to February 7, 2019 (Predecessor). Total revenue increased $299.7 million, or 21%, and $1,560.0 million, or 873%, for the year ended December 31, 2020 (Successor), compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction. In addition, revenue was reduced by $21.1 million and $138.9 million for the year ended December 31, 2020 (Successor) and for the period from January 1, 2019 to December 31, 2019 (Successor), respectively, as a result of deferred revenue adjustments arising from the Take-Private Transaction.

Total revenue for the year ended December 31, 2020 (Successor) increased $137.0 million, or 9% (8% before the effect of foreign exchange), compared to the year ended December 31, 2019 on a combined pro forma basis. The increase was primarily due to the net impact of lower purchase accounting deferred revenue adjustments of $133.8 million (inclusive of pro forma deferred revenue adjustment), which had an impact of approximately eight percentage points on the year over year increase. Total segment revenue for the year ended December 31, 2020 (Successor) increased 3.2 million, or less than 1% (both after and before the effect of foreign exchange), compared to the year ended December 31, 2019 on a combined pro forma basis, driven by a decrease in North America total revenue of $5.7 million, or less than 1% (both after and before the effect of foreign exchange) and an increase in International total revenue of $8.9 million, or 3% (2% increase before the effect of foreign exchange).

Revenue by segment was as follows (In millions):

	Successor		Predecessor		
	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Pro Forma Adjustments for the year ended December 31, 2019	Combined Pro Forma for the year ended December 31, 2019 (1)
North America:					
Finance & Risk	$ 811.2	$ 729.1	$ 80.4	$ —	$ 809.5
Sales & Marketing	648.8	588.4	67.8	—	656.2
Total North America	$ 1,460.0	$ 1,317.5	$ 148.2	$ —	$ 1,465.7
International:					
Finance & Risk	$ 244.0	$ 210.4	$ 24.2	$ —	$ 234.6
Sales & Marketing	55.8	50.0	6.3	—	56.3
Total International	$ 299.8	$ 260.4	$ 30.5	$ —	$ 290.9
Corporate and other:					
Finance & Risk	$ (10.8)	$ (82.9)	$ —	$ (9.7)	$ (92.6)
Sales & Marketing	(10.3)	(56.0)	—	(6.3)	(62.3)
Total Corporate and other (2)	$ (21.1)	$ (138.9)	$ —	$ (16.0)	$ (154.9)
Total Revenue:					
Finance & Risk	$ 1,044.4	$ 856.6	$ 104.6	$ (9.7)	$ 951.5
Sales & Marketing	694.3	582.4	74.1	(6.3)	650.2
Total Revenue	$ 1,738.7	$ 1,439.0	$ 178.7	$ (16.0)	$ 1,601.7

(1) See further details discussed in notes to "GAAP Results," for the Pro Forma Adjustments for the year ended December 31, 2019 included elsewhere within Item 7.

(2) Revenue for Corporate and other represents deferred revenue purchase accounting adjustments recorded in accordance with GAAP related to the Take-Private Transaction.

North America Segment

For the year ended December 31, 2020 (Successor), North America revenue increased $142.5 million, or 11%, and $1,311.8 million, or 886%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, North America revenue decreased $5.7 million, or less than 1% (both after and before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. See further discussion below on revenue by solutions.

Finance & Risk

For the year ended December 31, 2020 (Successor), North America Finance & Risk revenue increased $82.1 million, or 11%, and $730.8 million, or 910%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, North America Finance & Risk revenue increased $1.7 million, or less than 1% (both after and before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. The increase was primarily due to higher subscription-based revenue of approximately $30 million, partially offset by lower revenue of approximately $17 million of lower usage, primarily attributable to the impact of COVID-19 and lower revenue of approximately $11 million primarily due to structural changes we made within our legacy Credibility solutions and lower usage.

Sales & Marketing

For the year ended December 31, 2020 (Successor), North America Sales & Marketing revenue increased $60.4 million, or 10%, and $581.0 million, or 857%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, North America Sales & Marketing revenue decreased $7.4 million, or 1% (both after and before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. The decrease was primarily due to lower royalty revenue of approximately $20 million from Data.com legacy partnership along with lower usage revenue across our Sales & Marketing solutions partially due to the impact of COVID-19. The aforementioned decreases were partially offset by a net increase in revenue across our Sales & Marketing solutions of approximately $6 million largely attributable to our D&B Direct solution. In addition, revenue increased by $6.5 million from the acquisition of Lattice, which was acquired at the beginning of the third quarter of 2019.

International Segment

For the year ended December 31, 2020 (Successor), International revenue increased $39.4 million, or 15%, and $269.3 million, or 882%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, International revenue increased $8.9 million, or 3% (2% increase before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. Excluding the positive impact of foreign exchange of $2.7 million, revenue increased $6.2 million. See further discussion below on revenue by solutions.

Finance & Risk

For the year ended December 31, 2020 (Successor), International Finance & Risk revenue increased $33.6 million, or 16%, and $219.8 million, or 908%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, International Finance & Risk revenue increased $9.4 million, or 4% (3% increase before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. Excluding the positive impact of foreign exchange of $2.3 million, increased revenue of $7.1 million was driven primarily by higher revenue of approximately $8 million from WWN alliances largely due to higher cross border data sales and approximately $2 million from higher sales of small business solutions in our Greater China market, partially offset by lower usage volume in our Asia markets of approximately $2 million primarily due to the impact of COVID-19.

Sales and Marketing

For the year ended December 31, 2020 (Successor) International Sales & Marketing revenue increased $5.8 million, or 12%, and $49.5 million, or 781%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The increase was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

For the year ended December 31, 2020, International Sales & Marketing revenue decreased $0.5 million, or 1% (2% decrease before the effect of foreign exchange) compared to the year ended December 31, 2019 on a combined pro forma basis. Excluding the positive impact of foreign exchange of $0.4 million, the $0.9 million decrease in revenue was driven primarily by lower usage volume in our Asia market of approximately $1 million primarily due to the impact of COVID-19.

Consolidated Operating Costs

Consolidated operating costs were as follows (In millions):

	Successor		Predecessor	
	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Combined Pro Forma for the year ended December 31, 2019 (1)
Cost of services (exclusive of depreciation and amortization)	$ 548.2	$ 463.7	$ 56.7	$ 520.4
Selling and administrative expenses	559.8	657.6	122.4	567.1
Depreciation and amortization	537.8	487.1	11.1	543.3
Restructuring charges	37.3	52.3	0.1	52.4
Operating costs	$ 1,683.1	$ 1,660.7	$ 190.3	$ 1,683.2
Operating income (loss)	$ 55.6	$ (221.7)	$ (11.6)	$ (81.5)

(1) See further details discussed in notes to "GAAP Results," for the Pro Forma Adjustments for the year ended December 31, 2019 included elsewhere within Item 7.

Cost of Services (exclusive of depreciation and amortization)

Cost of services (exclusive of depreciation and amortization) were $548.2 million for the year ended December 31, 2020 (Successor), an increase of $84.5 million, or 18%, compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) and an increase of $491.5 million, or 864%, compared to the period from January 1, 2019 to February 7, 2019 (Predecessor), primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

Cost of services (exclusive of depreciation and amortization) increased $27.8 million, or 5%, for the year ended December 31, 2020 compared to the year ended December 31, 2019 on a combined pro forma basis, primarily due to additional costs of $11.6 million from the acquisition of Lattice, which was acquired at the beginning of the third quarter of 2019, higher data processing costs of approximately $25 million, increased fulfillment and data acquisition costs of approximately $17 million and a technology transition cost of approximately $10 million. The aforementioned increases were partially offset by lower costs of approximately $9 million resulting from ongoing cost management efforts, and lower net personnel expenses of approximately $27 million.

Selling and Administrative Expenses

Selling and administrative expenses were $559.8 million for the year ended December 31, 2020 (Successor), a decrease of $97.8 million, or 15%, compared to the period from January 1, 2019 to December 31, 2019 (Successor), and an increase of $437.4 million, or 358%, compared to the period from January 1, 2019 to February 7, 2020 (Predecessor). The decrease compared to the prior year Successor period was primarily due to the Successor transaction costs of $147.4 million included in the prior year period, partially offset by the impact of the partial period results reflected in the prior year period resulting from the Take-Private Transaction. The increase compared to the prior year Predecessor period was primarily due to the impact of partial period results reflected in the prior year period as a result of the Take-Private Transaction, partially offset by the Predecessor transaction costs of $52.0 million included in the prior year period.

Selling and administrative expenses decreased $7.3 million, or 1%, for the year ended December 31, 2020, compared to the year ended December 31, 2019 on a combined pro forma basis. Selling and administrative expenses were $567.1 million for the year ended December 31, 2019 on a combined pro forma basis, excluding non-recurring transaction costs directly attributable to the Take-Private Transaction. The decrease was primarily due to lower personnel, travel and marketing costs of approximately $35 million primarily resulting from ongoing cost management efforts and lower transition related bonus of approximately $19 million, substantially offset by higher equity-based compensation of approximately $32 million in the current year primarily related to options granted in connection with the IPO, higher costs of approximately $6 million related to the effort to modernize our financial systems, and additional costs of approximately $5 million incurred in connection with the acquisition of Bisnode. In addition, increased costs of $3.0 million were related to the acquisition of Lattice, which was acquired at the beginning of the third quarter of 2019.

Depreciation and Amortization

Depreciation and amortization expenses were $537.8 million, $487.1 million and $11.1 million for the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor), and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. Higher depreciation and amortization for the year ended December 31, 2020 (Successor) compared to each of the prior year periods was primarily due to the impact of the partial period results reflected in each of the prior year periods as a result of the Take-Private Transaction. In addition, higher depreciation and amortization in each of the Successor periods was related to recognized intangible assets arising from the Take-Private Transaction.

Depreciation and amortization decreased $5.5 million, or 1%, for the year ended December 31, 2020, compared to depreciation and amortization for the year ended December 31, 2019 on a combined pro forma basis, primarily due to the accelerating amortization method applied to the customer relationship and database intangible assets recognized in connection with the Take-Private Transaction, largely offset by higher amortization due to higher amortizable internally developed software during 2020 compared to the prior year period.

Restructuring Charges

We recorded restructuring charges of $37.3 million for the year ended December 31, 2020 (Successor), $52.3 million for the Successor period from January 1, 2019 to December 31, 2019 (Successor), and $0.1 million for the Predecessor period from January 1, 2019 to February 7, 2019, respectively. Higher restructuring charges in the period from January 1, 2019 to December 31, 2019 was as a result of the restructuring plan management implemented after the Take-Private Transaction to remove duplicate headcount, reduce future operating costs, and to improve operational performance and profitability. See Note 5 to the consolidated financial statements for further detail of restructuring charges.

Operating Income (Loss)

Consolidated operating income was $55.6 million for the year ended December 31, 2020 (Successor), compared to operating loss of $221.7 million and $11.6 million for the Successor period from January 1, 2019 to December 31, 2019, and the Predecessor period from January 1, 2019 to February 7, 2019, respectively. Higher operating income for the year ended December 31, 2020 compared to the period from January 1, 2019 to December 31, 2019 (Successor) was primarily due to Successor transaction costs of $147.4 million included in the prior year Successor period, the net impact of lower deferred revenue adjustments of $117.8 million and the net impact of partial period results reflected in the prior year period resulting from the Take-Private Transaction. Higher operating income for the Successor year ended December 31, 2020 compared to the Predecessor period from January 1, 2019 to February 7, 2019 was primarily due to the net impact of partial period results and the Predecessor transaction costs of $52.0 million reflected in the prior year Predecessor period.

Consolidated operating income for the year ended December 31, 2020 was $55.6 million compared to consolidated operating loss of $81.5 million for the year ended December 31, 2019 on a combined pro forma basis, an improvement of $137.1 million, or 168%. The increase was primarily due to increased revenue of $137.0 million during the year ended December 31, 2020, largely as a result of the net impact of lower deferred revenue adjustments of $133.8 million (inclusive of pro forma deferred revenue adjustment), lower personnel, travel and marketing costs of approximately $62 million in 2020 primarily resulting from ongoing cost management efforts, lower transition related bonus of approximately $19 million and lower restructuring charge of approximately $15 million, partially offset by increased costs of approximately $48 million related to data processing and data acquisition costs, higher equity-based compensation of approximately $32 million primarily related to stock options granted on June 30, 2020 in connection with the IPO, a technology related transition cost of approximately $10 million in the current year period and higher operating loss of $5.3 million attributable to the acquisition of Lattice, which was acquired at the beginning of the third quarter of 2019.

Adjusted EBITDA and adjusted EBITDA margin by segment was as follows (In millions):

	Successor		Predecessor	
	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Combined Pro Forma for the year ended December 31, 2019 (1)
North America:				
Adjusted EBITDA	$ 696.2	$ 629.9	$ 60.4	$ 690.3
Adjusted EBITDA margin	47.7 %	47.8 %	40.8 %	47.1 %
International:				
Adjusted EBITDA	$ 91.0	$ 87.8	$ 12.5	$ 100.3
Adjusted EBITDA margin	30.3 %	33.7 %	40.6 %	34.4 %
Corporate and other:				
Adjusted EBITDA	$ (75.8)	$ (212.6)	$ (9.3)	$ (237.9)
Consolidated total:				
Adjusted EBITDA	$ 711.4	$ 505.1	$ 63.6	$ 552.7
Adjusted EBITDA margin	40.9 %	35.1 %	35.6 %	34.5 %
Net income (loss) margin	(10.4)%	(46.8)%	(42.3)%	(37.4)%

(1) See further details discussed in notes to “GAAP Results,” for the Pro Forma Adjustments for the year ended December 31, 2019 included elsewhere within Item 7.

Consolidated

Net loss margin was 10.4%, 46.8% and 42.3% for the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor), and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. Consolidated adjusted EBITDA was $711.4 million, $505.1 million and $63.6 million for the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor), and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. Higher adjusted EBITDA for the year ended December 31, 2020 (Successor) compared to each of the prior year periods was primarily due to the impact of the partial period results reflected in each of the prior year periods resulting from the Take-Private Transaction.

Consolidated adjusted EBITDA was $711.4 million for the year ended December 31, 2020 (Successor), compared to $552.7 million for the year ended December 31, 2019 on a combined pro forma basis, an increase of $158.7 million, or 29%. Consolidated net income (loss) margin was (10.4)% for the year ended December 31, 2020 compared to (37.4)% for the year ended December 31, 2019 on a combined pro forma basis, an improvement of 2700 basis points. Consolidated adjusted EBITDA margin was 40.9% for the year ended December 31, 2020 compared to 34.5% for the year ended December 31, 2019 on a combined pro forma basis, an improvement of 640 basis points. The improvement in adjusted EBITDA was primarily due to higher revenue of $137.0 million mainly due to the net impact of lower purchase accounting deferred revenue adjustments of $133.8 million (inclusive of pro forma deferred revenue adjustment), which had an impact of five percentage points on the year over year margin improvement. Also contributing to the improvement of the adjusted EBITDA for the year ended December 31, 2020 is lower personnel, travel and marketing costs of approximately $62 million in the current year period primarily resulting from ongoing cost management efforts, partially offset by increased technology costs of approximately $48 million related to data processing and data acquisition costs.

North America Segment

North America adjusted EBITDA increased $5.9 million, or 1%, for the year ended December 31, 2020 (Successor), compared to the year ended December 31, 2019 on a combined pro forma basis. Adjusted EBITDA margin increased 60 basis points for the year ended December 31, 2020 compared to the prior year on a combined pro forma basis. The improvement in both adjusted EBITDA and adjusted EBITDA margin was due to lower operating costs primarily resulting from ongoing cost management, driven by lower net personnel expenses.

International Segment

International adjusted EBITDA decreased $9.3 million, or 9%, for the year ended December 31, 2020 (Successor), compared to the year ended December 31, 2019 on a combined pro forma basis. Adjusted EBITDA margin decreased 410 basis points for the year ended December 31, 2020 (Successor) compared to the year ended December 31, 2019 on a combined pro forma basis. The decrease in both adjusted EBITDA and adjusted EBITDA margin was primarily due to higher WWN alliances data expense.

Corporate and Other

Corporate adjusted EBITDA for the year ended December 31, 2020 (Successor) improved by $162.1 million, or 68%, compared to the prior year on a combined pro forma basis. The improvement was primarily due to the net impact of lower purchase accounting deferred revenue adjustments of $133.8 million (inclusive of pro forma deferred revenue adjustment), which had an impact of 34 percentage points on the year over year increase. Also contributing to the improvement in adjusted EBITDA was lower net personnel costs.

Interest Income (Expense) — Net

Interest income (expense) – net was as follows (In millions):

	Successor		Predecessor	
	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Combined Pro Forma for the year ended December 31, 2019 (1)
Interest income	$ 0.7	$ 2.5	$ 0.3	$ 2.8
Interest expense	(271.1)	(303.5)	(5.5)	(338.7)
Interest income (expense) – net	$ (270.4)	$ (301.0)	$ (5.2)	$ (335.9)

(1) See further details discussed in notes to "GAAP Results," for the Pro Forma Adjustments for the year ended December 31, 2019 included elsewhere within Item 7.

Interest income decreased $1.7 million for the year ended December 31, 2020 (Successor) compared to the period from January 1, 2019 to December 31, 2019 (Successor), primarily attributable to lower average interest rates on invested cash and non-recurring interest income related to the settlement fund in connection with the Take-Private Transaction recorded in the prior year Successor period.

Interest expense increased for the year ended December 31, 2020 (Successor) and for the period from January 1, 2019 to December 31, 2019 (Successor), compared to the Predecessor period from January 1, 2019 to February 7, 2019. The increase was attributable to higher average amounts of debt outstanding, the write off of debt issuance costs and discount, and the impact of the partial period results reflected in the Predecessor period resulting from the Take-Private Transaction.

Interest expense decreased $67.6 million for the year ended December 31, 2020 (Successor), compared to the prior year on a combined pro forma basis, primarily due to lower interest rates in the year ended December 31, 2020 and lower debt outstanding subsequent to the IPO transaction, partially offset by the write off of debt issuance costs and discount. See Note 6 for further discussion.

Other Income (Expense) — Net

Other income (expense) - net was as follows (In millions):

	Successor		Predecessor	
	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Combined Pro Forma for the year ended December 31, 2019 (1)
Non-operating pension income (expense)	$ 46.2	$ 36.5	$ (85.7)	$ 40.4
Change in fair value of make-whole derivative liability (2)	(32.8)	(172.4)	—	(172.4)
Partial debt redemption premium	(50.1)	—	—	—
Miscellaneous other income (expense) – net	25.1	(17.6)	(0.3)	(18.0)
Other income (expense) – net	$ (11.6)	$ (153.5)	$ (86.0)	$ (150.0)

(1) See further details discussed in notes to "GAAP Results," for the Pro Forma Adjustments for the year ended December 31, 2019 included elsewhere within Item 7.

(2) Related to the make-whole provision associated with the Series A Preferred Stock. See Note 1 to the consolidated financial statements.

Non-operating pension income (expense) was an income of $46.2 million for the year ended December 31, 2020 (Successor), an income of $36.5 million for the period from January 1, 2019 to December 31, 2019 (Successor), and an expense of $85.7 million for the Predecessor period from January 1, 2019 to February 7, 2019 (Predecessor). A non-recurring settlement charge of $85.8 million related to our U.S. Non-Qualified plan was included in the period from January 1, 2019 to February 8, 2019 (Predecessor). Higher income for the year ended December 31, 2020 (Successor) and the period from January 1, 2019 to December 31, 2019 (Successor) was also due to the elimination of actuarial loss amortization as a result of the application of purchase accounting in connection with the Take-Private Transaction. Excluding the impact of the non-recurring settlement charge and the actuarial loss amortization included in the period from January 1, 2019 to February 7, 2019 (Predecessor), both attributable to the Take-Private Transaction, non-operating pension income was $40.4 million for the year ended December 31, 2019 on a combined pro forma basis.

The change in fair value of make-whole derivative liability relates to the valuation of a derivative bifurcated in accordance with GAAP from the Series A Preferred Stock that was issued in February 2019 to finance the Take-Private Transaction. Beginning in November 2019, we determined that there was a more than remote likelihood that the Series A Preferred Stock would become redeemable before November 8, 2021, which would trigger a make-whole payment. We recorded a loss of $32.8 million and $172.4 million for the year ended December 31, 2020 (Successor) and for the period from January 1, 2020 to December 31, 2019 (Successor), respectively, to adjust the fair value of the make-whole derivative liability based on management's estimate of probability and timing of the triggering event associated with the make-whole derivative liability. Upon the closing of the IPO on July 6, 2020 (see further discussion in Note 1), we redeemed all of the outstanding Series A Preferred Stock as required by the Certificate of Designation. In addition, we made the total make-whole payment of $205.2 million.

The changes in miscellaneous other income (expense) - net of $42.7 million and $25.4 million for the year ended December 31, 2020 (Successor), compared to the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively, were primarily driven by a gain associated with the change in fair value related to the foreign currency collar we entered into in connection with the Bisnode acquisition and foreign currency exchange gains related to the revaluation of our intercompany loans.

Provision for Income Taxes

Effective tax rate for the year ended December 31, 2018 (Predecessor)	21.9 %
Impact of uncertain tax positions(1)	(8.0)
Impact of income earned in non U.S. jurisdictions	2.3
Impact of non-deductible charges(2)	(3.2)
Impact of legacy transaction costs(3)	6.7
Impact of tax credits and deductions	3.2
Impact of prior year non-recurring tax on deemed earnings repatriation	(3.8)
Impact of change in state tax	4.2
Impact of prior year tax accounting method change	3.6
Impact of valuation allowance	0.1
Other	(0.3)
Effective tax rate for the period ended February 7, 2019 (Predecessor)	26.7 %
Impact of uncertain tax positions taken in the 2019 Predecessor period	7.8
Impact of income earned in non U.S. jurisdictions	0.2
Impact of non-deductible charges(2)	(2.6)
Impact of legacy transaction costs	(6.7)
Impact of non-deductible change in fair value of make-whole derivative liability for the Series A Preferred Stock	(5.4)
Impact of tax credits and deductions	1.2
Impact of GILTI Inclusion	(4.4)
Impact of change in state tax	(3.6)
Impact of valuation allowance(4)	4.0
Other	0.3
Effective tax rate for the year ended December 31, 2019 (Successor)	17.5 %
Impact of uncertain tax positions	(0.4)
Impact of income earned in non U.S. jurisdictions	2.2
Impact of non-deductible charges	2.1
Impact of non-deductible change in fair value of make-whole derivative liability for the Series A Preferred Stock	2.3
Impact of tax credits and deductions	4.9
Impact of GILTI Inclusion	(3.9)
Impact of change in state tax	2.3
Impact of valuation allowance(4)	(4.2)
Impact of CARES Act	25.5
Other	1.3
Effective tax rate for the year ended December 31, 2020 (Successor)	49.6 %

(1) The impact was due to the establishment of a reserve for uncertain tax positions in our U.S. jurisdiction.

(2) The impact was related to non-deductible transaction costs associated with the Take-Private Transaction.

(3) The impact was related to deductible legacy transaction costs incurred in predecessor historical periods.

(4) The impact was related to the release of valuation allowance for net operating losses.

Net Income (Loss)

Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor) was a net loss of $180.6 million, $674.1 million and $75.6 million for the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor), and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. The improvement of $493.5 million for the year ended December 31, 2020 (Successor), compared to the period from January 1, 2019 to December 31, 2019 (Successor), was primarily due to:

- transaction costs of $147.4 million incurred in connection with the Take-Private Transaction included in the 2019 Successor period, inclusive of $56.3 million expense associated with incentive units granted to certain investors;
- lower net purchase accounting deferred revenue adjustment of $117.8 million;
- lower loss of $139.6 million in the year of December 31, 2020 (Successor) related to the change in the fair value of the make-whole derivative liability recorded in connection with the make-whole provision for the Series A Preferred Stock;
- higher gains of $43.2 million primarily resulting from fair value change related to the foreign currency collar we entered into in connection with the Bisnode acquisition and foreign currency exchange gains related to the revaluation of our intercompany loans;
- restructuring costs that were lower by $15.0 million in the year ended December 31, 2020 (Successor); and
- the remaining reduction in net loss attributable to the net impact resulting from the partial period results reflected in the prior year period from January 1, 2019 to December 31, 2019 (Successor);

partially offset by,

- total expenses of $66.3 million recognized for the partial redemption of our 10.250% Senior Unsecured Notes and the 6.875% Senior Secured Notes in the year ended December 31, 2020 (Successor);
- higher depreciation and amortization of $50.7 million in the current year; and
- higher equity-based compensation of approximately $32 million primarily due to options granted in connection with the IPO.

Higher net loss of $105.0 million for the year ended December 31, 2020 (Successor) compared to the period from January 1, 2019 to February 7, 2019 (Predecessor) was primarily driven by the net impact of the partial period results reflected in the prior year Predecessor period from January 1, 2019 to February 7, 2019 resulting from the Take-Private Transaction.

Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. was a net loss of $180.6 million for the year ended December 31, 2020 (Successor), compared to net loss of $599.0 million for prior year on a combined pro forma basis. The improvement of $418.4 million for the year ended December 31, 2020 was primarily due to:

- improvement in operating income (loss) of $137.1 million in the current year largely due to lower deferred revenue purchase accounting adjustments and lower personnel and travel costs discussed in more detail within the operating income (loss) section of the MD&A;
- lower loss of $139.6 million in the year of December 31, 2020 (Successor) related to the change in the fair value of the make-whole derivative liability recorded in connection with the make-whole provision for the Series A Preferred Stock;
- lower interest expense of $67.6 million in the current year;
- lower preferred dividends of $63.6 million allocated to preferred stockholders in the current year;
- higher gains of $43.6 million primarily resulting from fair value change related to the foreign currency collar we entered into in connection with the Bisnode acquisition and foreign currency exchange gains related to the revaluation of our intercompany loans; and
- higher income tax benefit of $13.8 million for the year ended December 31, 2020 (Successor) primarily related to the CARES Act;

partially offset by,

- total expense of $66.3 million recognized for the partial redemption of our 10.250% Senior Unsecured Notes and the 6.875% Senior Secured Notes in the year ended December 31, 2020 (Successor).

Adjusted Net Income and Adjusted Earnings Per Share

Adjusted net income was $346.6 million for the year ended December 31, 2020 (Successor) compared to $174.1 million for the prior year on a combined pro forma basis, an increase of $172.5 million, or 99%. Adjusted net earnings per share was $0.94 in the year ended December 31, 2020 (Successor) compared to $0.55 for the year ended December 31, 2019 on a combined pro forma basis, an increase of $0.39, or 71%. The increase was primarily driven by the net impact of lower deferred revenue adjustments in the current year, lower net personnel and travel costs primarily driven by ongoing cost management and lower interest expense, partially offset by higher technology costs primarily related to data processing and data acquisition costs discussed within the adjusted EBITDA and adjusted EBITDA margin section of the MD&A.

Liquidity and Capital Resources

Overview

Our primary sources of liquidity consist of cash flows provided by operating activities, cash and cash equivalents on hand and our short-term borrowings under our senior secured credit facility. Our principal uses of liquidity are working capital, capital investments (including computer software), debt service, business acquisitions and other general corporate purposes.

We believe that cash provided by operating activities, supplemented as needed with available financing arrangements, is sufficient to meet our short-term needs for at least the next twelve months, including interest payments, contractual obligations, capital expenditures, tax liabilities and restructuring charges. We continue to generate substantial cash from ongoing operating activities and manage our capital structure to meet short- and long-term objectives including investing in existing businesses and strategic acquisitions. In addition, we have the ability to use the short-term borrowings from the Revolving Facility to supplement the seasonality in the timing of receipts in order to fund our working capital needs. Our future capital requirements will depend on many factors that are difficult to predict, including the size, timing and structure of any future acquisitions, future capital investments and future results of operations.

Since March 2020, the COVID-19 global pandemic has caused, and continues to cause disruptions in the economy and volatility in the financial markets, and considerable uncertainty regarding its duration and the speed of recovery. The extent of the ultimate impact of the COVID-19 global pandemic on our operations and financial performance depends on the effects on our clients and vendors, which are uncertain at this time and cannot be predicted. Given the current economic condition, we continue to carefully monitor the COVID-19 global pandemic and its impact on our business and taking precautionary measures to ensure we continue to have sufficient liquidity. Our productivity and financial performance for the years ended December 31, 2021 and 2020 have not been impacted materially by the pandemic. Currently, while we do not expect the impact of COVID-19 to affect our ability to fund our operating needs for the foreseeable future, the ultimate impact will be difficult to predict, and depends on, among many factors, the duration of the pandemic, the timing and availability of vaccines and treatments and government mandates or guidance regarding COVID-19 restriction and its ultimate impact to our clients, vendors, and the financial markets.

Cash Flow Overview

As of December 31, 2021, we had cash and cash equivalents of $177.1 million, of which $165.4 million was held by our foreign operations. We utilize a variety of planning strategies in an effort to ensure that our worldwide cash is available when and where it is needed. Subsequent to the enactment of the Tax Cuts and Jobs Act ("2017 Act"), we expect a significant portion of the cash and cash equivalents held by our foreign subsidiaries will no longer be subject to U.S. income tax upon repatriation to the United States, after a one-time mandatory U.S. tax on accumulated undistributed foreign earnings through December 31, 2017. However, a portion of our cash held by our foreign operations is still subject to foreign income tax or withholding tax upon repatriation. As a result, we intend to reinvest indefinitely all earnings post 2017 from our China and India subsidiaries. Cash held in our China and India operations totaled $68.3 million as of December 31, 2021. As of December 31, 2021, our total tax liability associated with the 2017 Act was $49.8 million, of which $5.2 million was included in “Accrued Income Tax” and $44.6 million was included in “Other Non-Current Liabilities.

Information about our cash flows, by category, is presented in the Consolidated Statements of Cash Flows. The following table summarizes our cash flows for the periods presented (In millions):

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Net cash provided by (used in) operating activities	$ 503.7	$ 205.5	$ (70.5)	$ (65.4)
Net cash provided by (used in) investing activities	(1,078.7)	(133.8)	(6,156.7)	(5.3)
Net cash provided by (used in) financing activities	400.1	188.6	6,321.7	96.9
Total cash provided during the period before the effect of exchange rate changes	$ (174.9)	$ 260.3	$ 94.5	$ 26.2

Cash Provided by (Used in) Operating Activities

Year Ended December 31, 2021 versus Year Ended December 31, 2020

Higher operating cash flows in the year ended December 31, 2021, compared to the year ended December 31, 2020, was primarily driven by lower net tax payment of $104.2 million in the current year primarily due to the cash benefit received due to the application of the CARES Act, lower interest payments of $57.2 million in the current year as a result of our efforts to reduce debt, and lower bonus payments of approximately $36 million due to special bonus payments in 2020 related to transitioning efforts. The remaining increase in operating cash flows was primarily due to improved collections and performance in the current year period and the impact of acquisitions during 2021.

The CARES Act, which was signed into law on March 27, 2020 by the U.S. government, was designed to provide relief to businesses during the COVID-19 pandemic, including allowing the amendment of prior tax returns to obtain tax refunds through the modification of rules related to the net operating losses and interest expense deductions. We utilized the relief opportunities provided by the Act. The application of the Act resulted in a net cash benefit of approximately $98.4 million. On January 22, 2021 we received $66.2 million of the $98.4 million due to us. We also deferred 2020 FICA payroll tax payments of $9.5 million, which were paid in the third quarter of 2021.

We expect operating cash requirements in 2022 to be primarily related to payments for interest, contractual obligations, tax liability and other working capital needs. We typically have various contractual obligations in our normal course of business, including those recorded as liabilities in our consolidated balance sheet, and certain purchase commitments that are not recognized, but are disclosed in the notes to our consolidated financial statements. A significant portion of these contractual obligations are related to payments for enterprise-wide information-technology services. See Note 20 to the consolidated financial statements for further discussion on contractual obligations. We anticipate interest payments and payments for our contractual obligations to be approximately $148 million and $318 million in 2022, respectively. We expect cash requirements in 2022 to meet other working capital needs in the normal course of business, such as payments for salaries and wages, and data acquisition, to be comparable to 2021. We expect to continue to generate substantial cash from ongoing operating activities.

Year Ended December 31, 2020 versus Year Ended December 31, 2019

Higher operating cash flows in the year ended December 31, 2020 (Successor), compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor), was primarily driven by the net impact of partial period results reflected in the prior year period and transaction cost payments and pension settlement payments in connection with the Take-Private Transaction on February 8, 2019 totaling approximately $197 million during the 2019 Successor period.

Higher operating cash flows in the year ended December 31, 2020 (Successor), compared to the period from January 1, 2019 to February 7, 2019 (Predecessor), was primarily driven by the net impact of partial period results reflected in the prior year period and transaction cost payments and pension settlement payments in connection with the Take-Private Transaction on February 8, 2019 totaling approximately $243 million during the 2019 Predecessor period, partially offset by the effect of higher interest payments primarily due to higher debt balances also as a result of the Take-Private Transaction.

Cash Provided by (Used in) Investing Activities

Year Ended December 31, 2021 versus Year Ended December 31, 2020

Higher net cash used in investing activities for the year ended December 31, 2021, compared to the year ended December 31, 2020, was primarily driven by the higher net payment for acquisitions of $824.2 million in the current year, payments of $76.6 million for the purchase of an office building in Jacksonville, Florida for our new global headquarters office, and higher payment of $55.5 million for software development, partially offset by higher cash settlements of $14.6 million received for foreign currency contracts.

During 2021, we acquired Bisnode for a total purchase price of $805.8 million, inclusive of cash acquired of $29.9 million. The transaction closed with a combination of cash of $646.9 million and 6,237,087 newly issued shares of common stock of the Company in a private placement valued at $158.9 million based on the stock closing price on January 8, 2021. Upon the close of the transaction, we settled a zero-cost foreign currency collar and received $21.0 million, which reduced our net cash payment for the acquisition. The transaction was partially funded by the proceeds from the $300 million borrowing from the Incremental Term Loan.

During 2021, we also acquired Eyeota and NetWise for an aggregate purchase price of $242.1 million, inclusive of acquired cash of $9.7 million. The acquisitions are partially funded with borrowings from our revolving credit facility. See Note 16 to the consolidated financial statements for further discussion.

We expect capital expenditures in 2022 to be in the range of $150 million to $180 million.

Year Ended December 31, 2020 versus Year Ended December 31, 2019

Lower net cash used in investing activities for the year ended December 31, 2020 (Successor), compared to the prior year period from January 1, 2019 to December 31, 2019 (Successor) was primarily driven by the net payment of $6,078 million in the 2019 Successor period to acquire the Predecessor company in connection with the Take-Private Transaction, including payments to settle the Predecessor line of credit and term loan.

Higher net cash used in investing activities for the year ended December 31, 2020 (Successor), compared to the prior year period from January 1, 2019 to February 7, 2019 (Predecessor) was primarily driven by the net payments of $20.6 million to acquire Orb and coAction in 2020 and higher spending of approximately $116 million on capital expenditures and computer software primarily due to the net impact of partial period results reflected in the prior year period.

Cash Provided by (Used in) Financing Activities

Year Ended December 31, 2021 versus Year Ended December 31, 2020

The increase in net cash provided by financing activities during the year ended December 31, 2021, compared to the year ended December 31, 2020, was primarily related to payments of $1,273.1 million in the prior year for the redemption (inclusive of make-whole liability) of the Series A Preferred Stock; lower payment of $150.6 million in 2021 for debt redemption activities (inclusive of early payment premium) related to the repayment of 10.250% Senior Unsecured Notes totaling $479.5 million, compared to the prior year related to partial repayments of the 10.250% Senior Unsecured Notes and 6.875% Senior Secured Notes totaling $630.1 million; the repayment of $63.0 million related to the Repatriation Bridge Facility in the prior year; higher net proceeds of $910.9 million from borrowings in the current year mainly due to issuance of 5.000% Senior Unsecured Notes and the draw-down of the Incremental Term Loan; and the non-recurring preferred dividends of $64.1 million in the prior year period, partially offset by net proceeds from the IPO transaction in the prior year of $2,248.2 million (inclusive of $0.9 million IPO costs paid prior to the IPO transaction date).

See below, Note 1 and Note 15 to the consolidated financial statements for further discussion related to the Series A Preferred Stock, the associated dividend payments and the IPO transaction.

See below and Note 6 to the consolidated financial statements for further discussion on our debt.

Year Ended December 31, 2020 versus Year Ended December 31, 2019

The decrease in net cash provided by financing activities during the year ended December 31, 2020 (Successor), compared to net cash provided by financing activities in the prior year period from January 1, 2019 to December 31, 2019 (Successor) was primarily related to the raising of equity and debt financing for the Take-Private Transaction, totaling $7,046.6 million in the 2019 period. Also contributing to the decrease was payment of $1,273.1 million for the redemption (inclusive of make-whole liability) of the Series A Preferred Stock, partial repayments of our 10.250% Senior Unsecured Notes and 6.875% Senior Secured Notes totaling $630.1 million (inclusive of early payment premium), and the repayment of $63.0 million related to the Repatriation Bridge Facility in 2020. These decreases were partially offset by net proceeds from the IPO transaction in 2020 of $2,248.2 million (inclusive of $0.9 million IPO costs paid prior to the IPO transaction date) and payments of $625.1 million to retire Predecessor Senior Notes in the 2019 period.

The increase in net cash provided by financing activities during the year ended December 31, 2020 (Successor), compared to net cash provided by financing activities in the period from January 1, 2019 to February 7, 2019 (Predecessor) was primarily due to net proceeds of $2,248.2 million from the IPO transaction in 2020, partially offset by payment of $1,273.1 million for the redemption (inclusive of make-whole liability) of the Series A Preferred Stock, partial repayments of our 10.250% Senior Unsecured Notes and 6.875% Senior Secured Notes totaling $630 million (inclusive of early payment premium), and preferred dividend payments of $64.1 million during 2020.

Contractual Commitments

At December 31, 2021, we had contractual commitments to repay debt, settle payments to purchase services, settle tax liabilities, make lease payments and fund pension plans. The following table presents our contractual obligations as of December 31, 2021 (In millions):

	Total	Payment due within one year
Contractual obligations		
Short-term and long-term debt (1)	$ 4,993.0	$ 616.2
Operating leases (2)	$ 95.4	$ 29.7
Commitments to purchase obligations (3)	$ 2,036.7	$ 317.6
Pension and other postretirement benefits payments/contributions (4)	$ 73.6	$ 4.2
Tax liabilities related to the 2017 Act	$ 49.8	$ 5.2

(1) Amounts include interest payments. In addition, amounts reflect the redemption of the $420 million 6.875% Senior Secured Notes and the Incremental Term Loan of $460 million established on January 18, 2022.

(2) See Note 7 to the consolidated financial statements for further discussion.

(3) See Note 20 to the consolidated financial statements for further discussion.

(4) See Note 10 to the consolidated financial statements for further discussion.

Capital Resources and Debt

Currently, in addition to cash generated from our operating activities, we also borrow from time to time from our credit facility and issue long-term debt.

Below is a summary of our borrowings as of December 31, 2021 and December 31, 2020 (In millions):

		December 31, 2021			At December 31, 2020		
	Maturity	**Principal amount**	**Debt issuance costs and discount**	**Carrying value**	**Principal amount**	**Debt issuance costs and discount**	**Carrying value**
Debt maturing within one year:							
Term loan facility		$ 28.1	$ —	$ 28.1	$ 25.3	$ —	$ 25.3
Total short-term debt		$ 28.1	$ —	$ 28.1	$ 25.3	$ —	$ 25.3
Debt maturing after one year:							
Term loan facility	February 8, 2026	$ 2,754.8	$ 64.5	$ 2,690.3	$ 2,485.7	$ 77.1	$ 2,408.6
Revolving facility	September 11, 2025	160.0	—	160.0	—	—	—
5.000% Senior unsecured notes	December 15, 2029	460.0	6.8	453.2	—	—	—
6.875% Senior secured notes	August 15, 2026	420.0	6.8	413.2	420.0	8.2	411.8
10.250% Senior unsecured notes	Fully paid off in December 2021	—	—	—	450.0	14.6	435.4
Total long-term debt		$ 3,794.8	$ 78.1	$ 3,716.7	$ 3,355.7	$ 99.9	$ 3,255.8
Total debt		$ 3,822.9	$ 78.1	$ 3,744.8	$ 3,381.0	$ 99.9	$ 3,281.1

Senior Secured Credit Facilities

Borrowings under the Senior Secured Credit Facilities bear interest at a rate per annum equal to an applicable margin over a LIBOR rate for the interest period relevant to such borrowing, subject to interest rate floors, and they are secured by substantially all of the Company's assets.

Other details of the Senior Secured Credit Facilities (See Note 6 for further discussion):

- As required by the credit agreement, beginning June 30, 2020, the principal amount of the Term Loan Facility began to be paid down in equal quarterly installments in an aggregate annual amount equal to 1.00% of the original principal amount, with the balance being payable on February 8, 2026. As such, the required payment in 2022 is expected to be approximately $32 million. The margin to LIBOR was 500 basis points initially. On February 10, 2020, an amendment was made to the existing credit agreement, specifically related to the Term Loan Facility, which reduced the margin to LIBOR to 400 basis points. Subsequent to the IPO transaction, the spread was further reduced by 25 basis points to 375 basis points. On January 27, 2021, the spread was reduced by 50 basis points to 325 basis points. The interest rates associated with the Term Loan Facility at December 31, 2021 and at December 31, 2020 were 3.352% and 3.898%, respectively.

- The margin to LIBOR for borrowings under the Revolving Facility was 350 basis points initially. Subsequent to the IPO transaction, the spread was reduced by 25 basis points to 325 basis points, subject to a ratio-based pricing grid. The aggregate amount available under the Revolving Facility is $850 million. The available borrowing under the Revolving Facility at December 31, 2021 was $690 million and the interest rate associated with the outstanding balance of the Revolving Facility at December 31, 2021 was 3.104%. There was no outstanding balance at December 31, 2020.

- Effective January 18, 2022, we amended our credit agreement dated February 8, 2019, specifically related to the Term Loan Facility, to establish Incremental Term Loans in an aggregate principal amount of $460 million and to use the proceeds of such Incremental Term Loans to redeem our outstanding $420 million in aggregate principal amount of our 6.875% Senior Secured Notes due 2026 and pay related fees, costs, premiums and expenses.

- The Repatriation Bridge Facility had a principal balance of $63.0 million and matured on February 7, 2020. The margin to LIBOR was 350 basis points. The outstanding balance of the Repatriation Bridge Facility was fully repaid in February 2020.

Senior Notes

The 6.875% Senior Secured Notes and the 5.000% Senior Unsecured Notes may be redeemed at our option, in whole or in part, following specified events and on specified redemption dates and at the redemption prices specified in the indenture governing the 6.875% Senior Secured Notes and the 5.000% Senior Unsecured Notes.

On December 20, 2021, we issued $460 million in aggregate principal amount of 5.000% Senior Unsecured Notes due December 15, 2029. The proceeds from the Senior Unsecured Notes and cash on hand were used to fund the full redemption of the $450 million in aggregate principal amount of our 10.250% Senior Unsecured Notes, inclusive of a make whole payment of $29.5 million, accrued interest and other fees and expenses.

On January 18, 2022, we redeemed our $420 million 6.875% Senior Secured Notes.

The Senior Secured Credit Facilities, the 5.000% Senior Unsecured Notes, and the 6.875% Senior Secured Notes contain certain covenants that limited our ability to enter into certain transactions. In addition, the Revolving Facility contains a financial covenant requiring the maintenance of debt to EBITDA ratios which are defined in the facility credit agreement in effect. We were in compliance with the respective financial and non-financial covenants at December 31, 2021 and December 31, 2020.

See Note 6 to the consolidated financial statements for further discussion.

Our Credit Ratings

Subsequent to the Take-Private Transaction, we have taken steps to reduce our debt and leverage. As a result, our debt to EBITDA ratio and ongoing debt costs are lower. On July 9, 2020, our credit rating was upgraded to B+ from B- by S&P Global and on July 16, 2020, Moody’s upgraded our debt rating to a B2 from a B3. On August 20, 2020, Fitch upgraded our debt rating to B+ and subsequently to a BB- on September 18, 2020.

Off-Balance Sheet Arrangements

We do not have any transactions, obligations or relationships that could be considered off-balance sheet arrangements, other than our foreign exchange forward contracts and interest rate swaps discussed in Note 13 to the consolidated financial statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Our market risks primarily consist of the impact of changes in currency exchange rates on assets and liabilities and the impact of changes in interest rates on our borrowing costs and fair value calculations.

We employ established policies and procedures to manage our exposure to changes in interest rates and foreign currencies. We use foreign exchange forward and option contracts to hedge short-term foreign currency denominated loans and certain third-party and intercompany transactions. We may also use foreign exchange forward contracts to hedge our net investments in our foreign subsidiaries. In addition, we may use interest rate derivatives to hedge a portion of the interest rate exposure on our outstanding debt or in anticipation of a future debt issuance, as discussed under "Interest Rate Risk Management" below.

We do not use derivative financial instruments for trading or speculative purposes. If a hedging instrument ceases to qualify as a hedge in accordance with hedge accounting guidelines, any subsequent gains and losses are recognized in the appropriate period income. Collateral is generally not required for these types of instruments.

A discussion of our accounting policies for financial instruments is included in the summary of significant accounting policies in Note 2 to our consolidated financial statements, and further disclosure relating to financial instruments is included in Note 13 to our consolidated financial statements.

Interest Rate Risk Management

Our objective in managing our exposure to interest rates is to limit the impact of interest rate changes on our earnings, cash flows and financial position, and to lower our overall borrowing costs. To achieve these objectives, we maintain a practice that floating-rate debt be managed within a minimum and maximum range of our total debt exposure. To manage our exposure and limit volatility, we may use fixed-rate debt, floating-rate debt and/or interest rate swaps. We recognize all derivative instruments as either assets or liabilities at fair value in the consolidated balance sheets.

We use interest rate swaps to manage the impact of interest rate changes on our earnings. Under the swap agreements, we make monthly payments based on the fixed interest rate and receive monthly payments based on the floating rate. The objective of the swaps is to mitigate the variation of future cash flows from changes in the floating interest rates on our existing debt. For further detail of our debt, see Note 6 to the consolidated financial statements. The swaps are designated and accounted for as cash flow hedges. Changes in the fair value of the hedging instruments are recorded in Other Comprehensive Income (Loss) and reclassified to earnings in the same line item associated with the hedged item when the hedged item impacts earnings.

A 100 basis point increase and decrease in the weighted average interest rate on our outstanding debt subject to rate variability would result in an incremental increase in annual interest expense of approximately $29 million and an incremental decrease in annual interest expense of approximately $3 million for the year ended December 31, 2021, respectively.

Foreign Exchange Risk Management

We have numerous offices in various countries outside of the United States and conduct operations in several countries through minority equity investments and strategic relationships with local providers. Our operations outside of the United States generated approximately 33%, 19% and 20% of our total revenue for the year ended December 31, 2021, year ended December 31, 2020, and the combined pro forma year ended December 31, 2019, respectively. Approximately 21% and 9% of our assets as of December 31, 2021 and 2020, respectively, were located outside of the United States.

Our objective in managing exposure to foreign currency fluctuations is to reduce the volatility caused by foreign exchange rate changes on the earnings, cash flows and financial position of our international operations. From time to time, we follow a practice of hedging certain balance sheet positions denominated in currencies other than the functional currency applicable to each of our various subsidiaries. In addition, we are subject to foreign exchange risk associated with our international earnings and net investments in our foreign subsidiaries. We may use short-term, foreign exchange forward and, from time to time, option contracts to execute our hedging strategies. Typically, these contracts have maturities of 12 months or less. These contracts are denominated primarily in the British pound sterling, the Euro, the Swedish Krona, and the Norwegian Krone. The gains and losses on the forward contracts associated with our balance sheet positions are recorded in "Other Income (Expense)—Net" in the consolidated statements of operations and comprehensive income (loss) and are essentially offset by the losses and gains on the underlying foreign currency transactions. Our foreign exchange forward contracts are not designated as hedging instruments under authoritative accounting guidance.

To decrease earnings volatility, we currently hedge substantially all our intercompany balance positions denominated in a currency other than the functional currency applicable to each of our various subsidiaries with short-term, foreign exchange forward contracts. In the prior year, certain balance sheet positions were not being hedged in order to reduce the volatility of cash flows required to settle these forward contracts. However, starting in the third quarter of 2020, we resumed our practice of hedging substantially all our intercompany balance positions. The underlying transactions and the corresponding foreign exchange forward contracts are marked to market at the end of each quarter and the fair value impacts are reflected within "Non-operating income (expense) – net" in the consolidated financial statements.

At December 31, 2021 and December 31, 2020, the notional amounts of our foreign exchange forward contracts were $448.5 million and $212.9 million, respectively. Realized gains and losses associated with these contracts were $11.4 million and $10.1 million, respectively, for the year ended December 31, 2021; $17.4 million and $9.7 million, respectively, for the year ended December 31, 2020; and $18.2 million and $27.6 million, respectively, for the period from January 1, 2019 to December 31, 2019. Unrealized gains and losses associated with these contracts were $1.9 million and $0.7 million, respectively, at December 31, 2021, $2.0 million and $0.9 million, respectively, at December 31, 2020, and $0.3 million and $0.5 million, respectively, at December 31, 2019.

In addition, in connection with the acquisition of Bisnode, we entered into a zero-cost foreign currency collar in November 2020, with a notional amount of SEK 4.8 billion to reduce our foreign currency exposure. Unrealized gain associated with the instrument was $23.5 million at December 31, 2020. We settled the collar on January 8, 2021 with a gain of $21.0 million upon the close of the Bisnode transaction, resulting in a loss of $2.5 million for the year ended December 31, 2021.

If exchange rates to which we are exposed under our outstanding foreign exchange forward contracts were to increase, on average, 10% from year-end 2021 levels, the unrealized losses on our foreign exchange forward contracts would be approximately $34 million, excluding the expected gains on the underlying hedged items. If exchange rates, on average, were to decrease 10% from year-end 2021 levels, the unrealized gains on our foreign exchange forward contracts would be $33.6 million, excluding the expected losses on the underlying hedged items. However, the estimated potential gains and losses on these contracts would substantially be offset by changes in the dollar equivalent value of the underlying hedged items.

Item 8. Financial Statements and Supplementary Data

Dun & Bradstreet Holdings, Inc.
Index to Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Dun & Bradstreet Holdings, Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Dun & Bradstreet Holdings, Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations and comprehensive income (loss), stockholder equity, and cash flows for each of the years in the three-year period ended December 31, 2021 (Successor period), and of The Dun & Bradstreet Corporation and subsidiaries (Predecessor) for the period from January 1, 2019 to February 7, 2019 (Predecessor period), and the related notes (collectively, the consolidated financial statements). We also have audited 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.

In our opinion, the consolidated financial statements referred to above 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 years in the three-year period ended December 31, 2021 (Successor period), and the results of the Predecessor's operations and its cash flows for the period from January 1, 2019 to February 7, 2019 (Predecessor period), in conformity with U.S. generally accepted accounting principles. Also, 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 the Committee of Sponsoring Organizations of the Treadway Commission.

The Company acquired Bisnode Business Information Group AB ("Bisnode") during 2021, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2021, Bisnode's internal control over financial reporting associated with less than 2% of total assets (Bisnode's related goodwill and intangible assets are included within the scope of management's assessment), and approximately 18% of total revenues included in the consolidated financial statements of the Company as of and for the year ended December 31, 2021. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Bisnode.

New Basis of Accounting

As discussed in Note 1 to the consolidated financial statements, effective February 8, 2019, the Predecessor was acquired in a business combination accounted for using the acquisition method. As a result of the acquisition, the consolidated financial information for the periods after the acquisition are presented on a different cost basis than that for the periods before the acquisition and, therefore, is not comparable.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the 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 audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated 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 consolidated 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 consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated 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 consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Determination of standalone selling price

As discussed in Note 2 of the consolidated financial statements, the Company's contracts with clients often include multiple performance obligations. For these contracts, the Company allocates the transaction price to each performance obligation in the contract on a relative standalone selling price basis. Standalone selling price is the price at which the Company would sell a promised good or service separately to a client. When the standalone selling price is not directly observable from actual standalone sales, the Company estimates a standalone selling price making maximum use of any observable data and estimates of what a client in the market would be willing to pay for the goods or services.

We identified the assessment of the determination of standalone selling price as a critical audit matter. Subjective auditor judgment was required to evaluate standalone selling prices determined using ranges of observable standalone sales and ranges of selling price data when directly observable sales are not available.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's revenue process, including controls over the determination of standalone selling prices. We evaluated the methodology used to determine standalone selling prices by considering whether there were any changes in goods and services sold or selling practices that could affect the methodology or the relevance of selling price data used in the methodology. We tested observable selling price reports by agreeing selling price inputs to revenue contracts. For a selection of standalone selling prices, we evaluated the Company's assessment of the effect that observable selling price data has on the standalone selling price. For a selection of standalone selling prices that were changed from a previously established price, we assessed the revised standalone selling prices by comparing them to observable selling price data.

Sufficiency of audit evidence over IT systems used in the revenue recognition process

As discussed in Note 18 to the consolidated financial statements, the Company generated $1,499.4 million of revenue in North America for the year-ended December 31, 2021. The processing and recording of revenue in North America is reliant upon multiple information technology (IT) systems.

We identified the sufficiency of audit evidence over IT systems used in the revenue recognition process in North America as a critical audit matter. Subjective auditor judgment was required to evaluate the sufficiency of audit evidence obtained because of the complexity of the IT environment related to the revenue recognition process. Specifically, obtaining an understanding of the systems used in the Company's recognition of revenue and evaluating the related internal controls required the involvement of professionals with specialized skills and knowledge.

The following are the primary procedures we performed to address this critical audit matter. We performed risk assessment procedures and applied auditor judgment to determine the nature and extent of procedures to be performed over revenue. We involved IT professionals with specialized skills and knowledge, who assisted in 1) gaining an understanding of the systems used in the Company's recognition of revenue and 2) evaluating the design and testing the operating effectiveness of certain internal controls over the revenue process. This included the general IT and IT application controls related to recording revenue in North America. On a sample basis, we also tested certain revenue transactions by comparing the recorded amounts to underlying documentation. We evaluated the sufficiency of audit evidence obtained by assessing the results of procedures performed including the appropriateness of the nature and extent of audit evidence.

Fair value measurement of the reacquired right intangible asset acquired in the Bisnode acquisition

As discussed in Note 16 to the consolidated financial statements, the Company acquired 100% ownership of Bisnode on January 8, 2021 for total consideration of $805.8 million. As a result, the Company recognized a reacquired right intangible asset for $270.0 million. The determination of the fair value of the reacquired right intangible asset required the Company to make certain assumptions regarding cash flows from projected revenues and expenses, and the discount rate used in the calculation.

We identified the assessment of the fair value measurement of the reacquired right intangible asset acquired in the Bisnode acquisition as a critical audit matter. A high degree of subjective auditor judgment was required to evaluate the projected revenues and expenses, and discount rate used to determine the fair value of the reacquired right intangible asset. Changes to these assumptions could have had a significant effect on the Company's estimate of fair value of the reacquired right intangible asset.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's acquisition date valuation process, including controls over the development of the relevant assumptions listed above. We evaluated the projected revenues and expenses by (1) comparing them to historical results of the acquired entity and the Company and (2) current industry and economic trends. We performed sensitivity analyses to assess the impact that changes to the projected revenues and expenses, and discount rate would have on the fair value of the reacquired right intangible asset. We involved valuation professionals with specialized skills and knowledge, who assisted in:

- recalculating the fair value of the reacquired right intangible asset using the Company's cash flow forecasts and an independently developed range of discount rates; and comparing it to the Company's fair value estimate.
- evaluating the discount rate by comparing it to an independently developed range of discount rates using publicly available market data for certain comparable entities.

/s/ KPMG LLP

We have served as the Company's auditor since 2019

New York, New York
February 24, 2022

Dun & Bradstreet Holdings, Inc.
Consolidated Statements of Operations and Comprehensive Income (Loss)
(In millions, except per share data)

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020 (1)	Period from January 1 to December 31, 2019 (1)	Period from January 1 to February 7, 2019
Revenue	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7
Cost of services (exclusive of depreciation and amortization)	664.3	548.2	463.7	56.7
Selling and administrative expenses	714.7	559.8	657.6	122.4
Depreciation and amortization	615.9	537.8	487.1	11.1
Restructuring charges	25.1	37.3	52.3	0.1
Operating costs	2,020.0	1,683.1	1,660.7	190.3
Operating income (loss)	145.6	55.6	(221.7)	(11.6)
Interest income	0.7	0.7	2.5	0.3
Interest expense	(206.4)	(271.1)	(303.5)	(5.5)
Other income (expense) - net	14.9	(11.6)	(153.5)	(86.0)
Non-operating income (expense) - net	(190.8)	(282.0)	(454.5)	(91.2)
Income (loss) before provision (benefit) for income taxes and equity in net income of affiliates	(45.2)	(226.4)	(676.2)	(102.8)
Less: provision (benefit) for income taxes	23.4	(112.4)	(118.3)	(27.5)
Equity in net income of affiliates	2.7	2.4	4.2	0.5
Net income (loss)	(65.9)	(111.6)	(553.7)	(74.8)
Less: net (income) loss attributable to the non-controlling interest	(5.8)	(4.9)	(6.4)	(0.8)
Less: Dividends allocated to preferred stockholders	—	(64.1)	(114.0)	—
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)
Basic earnings (loss) per share of common stock:				
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)
Diluted earnings (loss) per share of common stock:				
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)
Weighted average number of shares outstanding-basic	428.7	367.1	314.5	37.2
Weighted average number of shares outstanding-diluted	428.7	367.1	314.5	37.2
Other comprehensive income (loss), net of income taxes:				
Net income (loss)	$ (65.9)	$ (111.6)	$ (553.7)	$ (74.8)
Foreign currency translation adjustments, net of tax (2)	$ (76.6)	$ 28.5	$ (1.9)	$ 5.9
Defined benefit pension plans:				
Prior service credit (cost), net of tax expense (benefit) (3)	(0.2)	(0.8)	2.3	(0.1)
Net actuarial gain (loss), net of tax expense (benefit) (4)	108.6	(95.5)	(26.3)	65.5
Derivative financial instrument, net of tax expense (benefit) (5)	7.8	0.7	(1.1)	(0.1)
Total other comprehensive income (loss), net of tax	$ 39.6	$ (67.1)	$ (27.0)	$ 71.2
Comprehensive income (loss), net of tax	$ (26.3)	$ (178.7)	$ (580.7)	$ (3.6)
Less: comprehensive (income) loss attributable to the non-controlling interest	(8.0)	(8.1)	(3.6)	(1.0)
Comprehensive income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (34.3)	$ (186.8)	$ (584.3)	$ (4.6)

(1) See Note 1 Basis of Presentation and Description of Business for further detail regarding the elimination of the International lag reporting.

(2) Tax Expense (Benefit) of $(1.6) million, $2.9 million, $1.8 million, and less than $0.1 million for the Successor year ended December 31, 2021, Successor year ended December 31, 2020, Successor period from January 1 to December 31, 2019, and for the Predecessor period from January 1 to February 7, 2019, respectively.

(3) Tax Expense (Benefit) of $0.1 million, $(0.2) million, and $0.8 million for the Successor year ended December 31, 2021, Successor year ended December 31, 2020, and for the Successor period from January 1 to December 31, 2019, respectively.

(4) Tax Expense (Benefit) of $38.9 million, $(32.2) million, $(8.1) million, and $22.2 million for the Successor year ended December 31, 2021, Successor year ended December 31, 2020, Successor period from January 1 to December 31, 2019, and for the Predecessor period from January 1 to February 7, 2019, respectively.

(5) Tax Expense (Benefit) of $2.8 million, $0.2 million, $(0.4) million, and $(0.1) million, for the Successor year ended December 31, 2021, Successor year ended December 31, 2020, Successor period from January 1 to December 31, 2019, and for the Predecessor period from January 1 to February 7, 2019, respectively.

The accompanying notes are an integral part of the consolidated financial statements.

Dun & Bradstreet Holdings, Inc.
Consolidated Balance Sheets
(In millions, except share data and per share data)

	December 31, 2021	December 31, 2020 (1)
Assets		
Current assets		
Cash and cash equivalents	$ 177.1	$ 352.3
Accounts receivable, net of allowance of $16.5 at December 31, 2021 and $11.4 at December 31, 2020 (Note 17)	401.7	319.3
Prepaid taxes	52.2	130.4
Other prepaids	63.9	37.9
Other current assets (Note 4 and 13)	23.1	34.5
Total current assets	718.0	874.4
Non-current assets		
Property, plant and equipment, net of accumulated depreciation of $27.5 at December 31, 2021 and $14.3 at December 31, 2020 (Note 17)	96.8	25.7
Computer software, net of accumulated amortization of $234.2 at December 31, 2021 and $125.6 at December 31, 2020 (Note 17)	557.4	437.0
Goodwill (Note 17 and 18)	3,493.3	2,857.9
Deferred income tax (Note 9)	18.5	14.1
Other intangibles (Note 17 and 18)	4,824.5	4,814.8
Deferred costs (Note 4)	116.1	83.8
Other non-current assets (Note 17)	172.6	112.6
Total non-current assets	9,279.2	8,345.9
Total assets	$ 9,997.2	$ 9,220.3
Liabilities		
Current liabilities		
Accounts payable	$ 83.5	$ 60.1
Accrued payroll	125.6	110.5
Short-term debt (Note 6)	28.1	25.3
Deferred revenue (Note 4)	569.4	477.2
Other accrued and current liabilities (Note 17)	198.3	155.0
Total current liabilities	1,004.9	828.1
Long-term pension and postretirement benefits (Note 10)	178.4	291.5
Long-term debt (Note 6)	3,716.7	3,255.8
Deferred income tax (Note 9)	1,207.2	1,106.6
Other non-current liabilities (Note 17)	144.7	154.4
Total liabilities	6,251.9	5,636.4
Commitments and contingencies (Note 8 and 20)		
Equity		
Common Stock, $0.0001 par value per share, authorized—2,000,000,000 shares; 432,070,999 shares issued and 431,197,782 shares outstanding at December 31, 2021 and 423,418,131 shares issued and 422,952,228 shares outstanding at December 31, 2020	—	—
Capital surplus	4,500.4	4,310.2
Accumulated deficit	(761.8)	(690.1)
Treasury Stock, 873,217 shares at December 31, 2021 and 465,903 shares at December 31, 2020	(0.3)	—
Accumulated other comprehensive loss	(57.1)	(94.5)
Total stockholder equity	3,681.2	3,525.6
Non-controlling interest	64.1	58.3
Total equity	3,745.3	3,583.9
Total liabilities and stockholder equity	$ 9,997.2	$ 9,220.3

(1) See discussion in Note 1 - Basis of Presentation and Description of Business for further detail regarding the elimination of the International lag reporting.

The accompanying notes are an integral part of the consolidated financial statements.

Dun & Bradstreet Holdings, Inc.
Consolidated Statements of Cash Flows
(In millions)

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020 (1)	Period from January 1 to December 31, 2019 (1)	Period from January 1 to February 7, 2019
Cash flows provided by (used in) operating activities:				
Net income (loss)	$ (65.9)	$ (111.6)	$ (553.7)	$ (74.8)
Reconciliation of net income (loss) to net cash provided by (used in) operating activities:				
Depreciation and amortization	615.9	537.8	487.1	11.1
Amortization of unrecognized pension loss (gain)	1.9	(0.5)	—	3.8
Payments for debt early redemption premiums reclassified to financing cash flows	29.5	50.1	—	—
Amortization and write off of deferred debt issuance costs	31.2	45.0	23.2	3.3
Pension settlement charge	—	0.6	—	85.8
Pension settlement payments	—	—	(105.9)	(190.5)
Income tax benefit from stock-based awards	—	—	—	10.3
Equity-based compensation expense	33.3	45.1	68.0	11.7
Restructuring charge	25.1	37.3	52.3	0.1
Restructuring payments	(20.6)	(16.5)	(39.8)	(2.1)
Change in fair value of make-whole derivative liability	—	32.8	172.4	—
Changes in deferred income taxes	(77.4)	(99.6)	(137.7)	(33.2)
Changes in prepaid and accrued income taxes	5.1	(129.7)	(15.1)	(8.1)
Changes in operating assets and liabilities: (2)				
(Increase) decrease in accounts receivable	(13.7)	(45.1)	(16.5)	16.3
(Increase) decrease in prepaid taxes, other prepaids and other current assets	63.2	(28.9)	6.0	(1.2)
Increase (decrease) in deferred revenue	16.5	8.1	68.7	20.8
Increase (decrease) in accounts payable	(0.1)	9.1	(25.1)	37.8
Increase (decrease) in accrued liabilities	(2.3)	(20.3)	(22.8)	(39.7)
Increase (decrease) in other accrued and current liabilities	(24.3)	(18.1)	42.5	25.1
(Increase) decrease in other long-term assets	(34.2)	(49.7)	(40.4)	(96.0)
Increase (decrease) in long-term liabilities	(84.4)	(39.2)	(47.5)	154.6
Net, other non-cash adjustments (3)	4.9	(1.2)	13.8	(0.5)
Net cash provided by (used in) operating activities	503.7	205.5	(70.5)	(65.4)
Cash flows provided by (used in) investing activities:				
Acquisitions of businesses, net of cash acquired	(844.8)	(20.6)	(6,078.0)	—
Cash settlements of foreign currency contracts	22.3	7.7	(9.4)	—
Payments for real estate purchase	(76.6)	—	—	—
Capital expenditures	(9.7)	(7.8)	(12.4)	(0.2)
Additions to computer software and other intangibles	(170.7)	(115.2)	(57.4)	(5.1)
Other investing activities, net	0.8	2.1	0.5	—
Net cash provided by (used in) investing activities	(1,078.7)	(133.8)	(6,156.7)	(5.3)
Cash flows provided by (used in) financing activities:				
Proceeds from issuance of common stock in the IPO transaction and Private Placement, net (4)	—	2,248.2	—	—
Proceeds from investors	—	—	3,176.8	—
Payment for the redemption of Cumulative Series A Preferred Stock	—	(1,067.9)	—	—
Payment for make-whole liability	—	(205.2)	—	—
Payment for debt early redemption premiums	(29.5)	(50.1)	—	—
Payments of dividends	—	(64.1)	(96.1)	—
Proceeds from borrowings on Credit Facility	314.1	407.2	228.3	167.0
Proceeds from issuance of Successor's Senior Notes	460.0	—	1,450.0	—
Proceeds from borrowings on Successor's Term Loan Facility - net of issuance discount	300.0	—	2,479.4	—
Retirement of Predecessor's Senior Notes	—	—	(625.1)	—
Payments of borrowings on Credit Facility	(154.1)	(407.2)	(228.3)	(70.0)
Payments of borrowing on Term Loan Facility	(28.1)	(19.0)	—	—
Payments of borrowings on Successor’s Senior Notes	(450.0)	(580.0)	—	—
Payments of borrowings on Bridge Loan	—	(63.0)	63.0	—
Payment of debt issuance costs	(9.5)	(2.5)	(122.6)	—
Other financing activities, net	(2.8)	(7.8)	(3.7)	(0.1)
Net cash provided by (used in) financing activities	400.1	188.6	6,321.7	96.9
Effect of exchange rate changes on cash and cash equivalents	(0.3)	7.6	(10.1)	1.2
Increase (decrease) in cash and cash equivalents	(175.2)	267.9	84.4	27.4
Cash and Cash Equivalents, Beginning of Period	352.3	84.4	—	90.2
Cash and Cash Equivalents, End of Period	$ 177.1	$ 352.3	$ 84.4	$ 117.6

Supplemental Disclosure of Cash Flow Information:				
Cash Paid for:				
Income taxes payment (refund), net	$ 12.7	$ 116.9	$ 34.3	$ 3.4
Interest	$ 191.8	$ 249.0	$ 237.8	$ 2.4
Noncash Investing and Financing activities:				
Fair value of acquired assets	$ 1,447.4	$ 21.6	$ 9,524.1	$ —
Cash paid for acquired businesses	(882.1)	(21.2)	(5,558.2)	—
Unpaid purchase price accrued in "Other accrued and current liabilities"	(6.9)	—	—	—
6,237,087 shares of common stock issued for the acquisition	(158.9)	—	—	—
Assumed liabilities from acquired businesses including non-controlling interest	$ 399.5	$ 0.4	$ 3,965.9	$ —
Noncash additions to computer software	$ 7.9	$ —	$ —	$ —
Noncash additions to property, plant and equipment	$ 1.7	$ 2.0	$ —	$ —

(1) See Note 1 Basis of Presentation and Description of Business for further detail regarding the elimination of the International lag reporting.

(2) Net of the effect of acquisitions, see further details in Note 16.

(3) Other noncash adjustments for the period from January 1, 2019 to December 31, 2019 (Successor) are primarily related to non-cash foreign exchange adjustments.

(4) Net of IPO offering costs of $132.8 million of which $131.9 million was paid by proceeds raised from the offering (see Note 1) and $0.9 million was paid prior to the IPO and Private Placement.

The accompanying notes are an integral part of the consolidated financial statements.

Dun & Bradstreet Holdings, Inc.
Consolidated Statements of Stockholder Equity (Deficit)
(In millions)

	Common stock	Capital surplus	(Accumulated deficit) retained earnings	Treasury stock	Cumulative translation adjustment	Defined benefit postretirement plans	Cash flow hedging derivative	Total stockholder equity (deficit)	Non-controlling interest	Total equity (deficit)
Predecessor:										
For the Period from January 1, 2019 to February 7, 2019 (1)										
Balance, December 31, 2018	$ 0.8	$ 332.8	$ 3,325.0	$(3,310.3)	$ (235.5)	$ (818.3)	$ (0.3)	$ (705.8)	$ 15.9	$ (689.9)
Net income (loss)	—	—	(75.6)	—	—	—	—	(75.6)	0.8	(74.8)
Payment to non-controlling interest	—	—	—	—	—	—	—	—	(0.1)	(0.1)
Equity-based compensation plans	—	11.7	—	—	—	—	—	11.7	—	11.7
Pension adjustments, net of tax expense of $22.2	—	—	—	—	—	65.4	—	65.4	—	65.4
Change in cumulative translation adjustment, net of tax expense of less than $0.1	—	—	—	—	5.7	—	—	5.7	0.2	5.9
Derivative financial instruments, net of tax benefit of $0.1	—	—	—	—	—	—	(0.1)	(0.1)	—	(0.1)
Balance, February 7, 2019	$ 0.8	$ 344.5	$ 3,249.4	$(3,310.3)	$ (229.8)	$ (752.9)	$ (0.4)	$ (698.7)	$ 16.8	$ (681.9)

	Common stock	Capital surplus	(Accumulated deficit) retained earnings	Treasury stock	Cumulative translation adjustment	Defined benefit postretirement plans	Cash flow hedging derivative	Total stockholder equity (deficit)	Non-controlling interest	Total equity (deficit)
Successor:										
For the period from January 1, 2019 to December 31, 2019 (1)										
Balance, January 1, 2019	$ —	$ —	$ (13.5)	$ —	$ —	$ —	$ —	$ (13.5)	$ —	$ (13.5)
Net income (loss)	—	—	(560.1)	—	—	—	—	(560.1)	6.4	(553.7)
Take-Private Transaction		2,048.4						2,048.4	60.3	2,108.7
Capital contribution		100.0						100.0		100.0
Equity-based compensation plans	—	68.0	—	—	—	—	—	68.0	—	68.0
Preferred dividend	—	(96.1)	—	—	—	—	—	(96.1)	—	(96.1)
Accretion - Series A Preferred Stock	—	(3.4)	—	—	—	—	—	(3.4)	—	(3.4)
Payment to non-controlling interest	—	—	—	—	—	—	—	—	(5.7)	(5.7)
Pension adjustments, net of tax benefit of $7.3	—	—	—	—	—	(24.0)	—	(24.0)		(24.0)
Change in cumulative translation adjustment, net of tax expense of $1.8	—	—	—	—	0.9	—	—	0.9	(2.8)	(1.9)
Derivative financial instruments, net of tax benefit of $0.4	—	—	—	—	—	—	(1.1)	(1.1)	—	(1.1)
Balance, December 31, 2019	$ —	$2,116.9	$ (573.6)	$ —	$ 0.9	$ (24.0)	$ (1.1)	$ 1,519.1	$ 58.2	$ 1,577.3

	Common stock	Capital surplus	(Accumulated deficit) retained earnings	Treasury stock	Cumulative translation adjustment	Defined benefit postretirement plans	Cash flow hedging derivative	Total stockholder equity (deficit)	Non-controlling interest	Total equity (deficit)
Year ended December 31, 2020 (1)										
Balance, January 1, 2020	$ —	$2,116.9	$ (573.6)	$ —	$ 0.9	$ (24.0)	$ (1.1)	$ 1,519.1	$ 58.2	$ 1,577.3
Net income (loss)	—	—	(116.5)	—	—	—	—	(116.5)	4.9	(111.6)
Accretion - Series A Preferred Stock (2)	—	(36.1)	—	—	—	—	—	(36.1)	—	(36.1)
Issuance of Class A Common Stock in IPO and Private Placement, net of issuance costs	—	2,248.2	—	—	—	—	—	2,248.2	—	2,248.2
Equity-based compensation plans (3)	—	45.3	—	—	—	—	—	45.3	—	45.3
Pension adjustments, net of tax benefit of $32.4	—	—	—	—	—	(96.3)	—	(96.3)	—	(96.3)
Change in cumulative translation adjustment, net of tax expense of $2.9	—	—	—	—	25.3	—	—	25.3	3.2	28.5
Derivative financial instruments, net of tax expense of $0.2	—	—	—	—	—	—	0.7	0.7	—	0.7
Preferred dividend	—	(64.1)	—	—	—	—	—	(64.1)	—	(64.1)
Payment to non-controlling interest	—	—	—	—	—	—	—	—	(8.0)	(8.0)
Balance, December 31, 2020	$ —	$4,310.2	$ (690.1)	$ —	$ 26.2	$ (120.3)	$ (0.4)	$ 3,525.6	$ 58.3	$ 3,583.9
Year ended December 31, 2021										
Balance, January 1, 2021	$ —	$4,310.2	$ (690.1)	$ —	$ 26.2	$ (120.3)	$ (0.4)	$ 3,525.6	$ 58.3	$ 3,583.9
Net income (loss)	—	—	(71.7)	—	—	—	—	(71.7)	5.8	(65.9)
Shares issued for Bisnode acquisition	—	158.9	—	—	—	—	—	158.9	—	158.9
Equity-based compensation plans	—	31.3	—	(0.3)	—	—	—	31.0	—	31.0
Pension adjustments, net of tax expense of $39.0	—	—	—	—	—	108.4	—	108.4	—	108.4
Change in cumulative translation adjustment, net of tax benefit of $1.6	—	—	—	—	(78.8)	—	—	(78.8)	2.2	(76.6)
Derivative financial instruments, net of tax expense of $2.8	—	—	—	—	—	—	7.8	7.8	—	7.8
Payment to non-controlling interest	—	—	—	—	—	—	—	—	(2.2)	(2.2)
Balance December 31, 2021	$ —	$4,500.4	$ (761.8)	$ (0.3)	$ (52.6)	$ (11.9)	$ 7.4	$ 3,681.2	$ 64.1	$ 3,745.3

(1) See Note 1 Basis of Presentation and Description of Business for further detail regarding the elimination of the International lag reporting.

(2) Related to Series A Preferred Stock which was fully redeemed in July 2020.

(3) Includes $0.2 million related to the conversion of pre-IPO liability classified equity-based awards into restricted stock units.

The accompanying notes are an integral part of the consolidated financial statements.

DUN & BRADSTREET HOLDINGS, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Tabular dollar amounts, except share data and per share data, in millions)

Note 1 -- Basis of Presentation and Description of Business

The accompanying financial statements of Dun & Bradstreet Holdings, Inc. (formerly Star Intermediate I, Inc.) and its subsidiaries ("we" or "us" or "our" or the "Company") were prepared in conformity with accounting principles generally accepted in the United States of America ("GAAP"). The preparation of financial statements and related disclosures requires us 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 revenue and expenses during the period reported. As discussed throughout this Note 1, we base our estimates on historical experience, current conditions and various other factors that we believe to be reasonable under the circumstances. Significant items subject to such estimates and assumptions include: valuation allowances for receivables and deferred income tax assets; tax liabilities related to our undistributed foreign earnings associated with the 2017 Tax Cuts and Jobs Act ("2017 Act"); liabilities for potential tax exposure and potential litigation claims and settlements; assets and obligations related to employee benefits; allocation of the purchase price in acquisition accounting; impairment assessment for goodwill and other intangible assets; long-term asset recoverability and estimated useful life; stock-based compensation; revenue deferrals; and restructuring charges. We review estimates and assumptions periodically and reflect the changes in the consolidated financial statements in the period in which we determine any changes to be necessary. Actual results could differ materially from those estimates under different assumptions or conditions.

Our consolidated financial statements presented herein reflect the latest estimates and assumptions made by management that affect the reported amounts of assets and liabilities and related disclosures as of the date of the consolidated financial statements and reported amounts of revenue and expenses during the reporting periods presented. Since early 2020, the novel coronavirus ("COVID-19") global pandemic has caused disruptions and continues to cause disruptions in the economy and volatility in the global financial markets. There is considerable uncertainty regarding its duration and the speed and nature of recovery. The extent of the impact of the COVID-19 global pandemic on our operations and financial performance will depend on among many factors, the duration of the pandemic, the timing and availability of vaccines and treatments and the government mandates or guidance regarding COVID-19 restriction and its effects on our clients and vendors, which continue to be uncertain at this time and cannot be predicted. In addition, the pandemic may affect management's estimates and assumptions of variable consideration in contracts with clients as well as other estimates and assumptions, in particular those that require a projection of our financial results, our cash flows or broader economic conditions.

The consolidated financial statements include our accounts, as well as those of our subsidiaries and investments in which we have a controlling interest. Investments in companies over which we have significant influence but not a controlling interest are recorded under the equity method of accounting. When events and circumstances warrant, equity investments accounted for under the equity method of accounting are evaluated for impairment. An impairment charge is recorded whenever a decline in value of an equity investment below its carrying amount is determined to be other-than temporary. We elect to account for investments over which we do not have significant influence at cost adjusted for impairment or other changes resulting from observable market data. Market values associated with these investments are not readily available. Our cost investments were not material as of December 31, 2021 and 2020.

Description of Business

Dun & Bradstreet Holdings, Inc. through its operating company The Dun & Bradstreet Corporation ("Dun & Bradstreet" or "D&B") helps companies around the world improve their business performance. A global leader in business to business data and analytics, we glean insight from data to enable our clients to connect with the prospects, suppliers, clients and partners that matter most. Since 1841, companies of every size rely on Dun & Bradstreet to help them manage risk and reveal opportunity. We transform data into valuable business insights which are the foundation of our global solutions that clients rely on to make mission critical business decisions.

Dun & Bradstreet provides solution sets that meet a diverse set of clients' needs globally. Clients use Finance & Risk solutions to mitigate credit, compliance and supplier risk, increase cash flow and drive increased profitability. Our Sales & Marketing solutions help clients better use data to grow sales, digitally engage with clients and prospects, improve marketing effectiveness and also offer data management capabilities that provide effective and cost efficient marketing solutions to increase revenue from new and existing clients.

The Take-Private Transaction

On August 8, 2018, a consortium of investors formed a Delaware limited partnership, Star Parent, L.P. ("Parent") and Star Merger Sub, Inc. ("Merger Sub"), and subsequently formed subsidiaries including Dun & Bradstreet Holdings, Inc., Star Intermediate II, LLC and Star Intermediate III, LLC. Also on August 8, 2018, Dun & Bradstreet entered into an Agreement and Plan of Merger (the "Merger Agreement") with Parent and Merger Sub. On February 8, 2019, pursuant to the terms of the Merger Agreement, Merger Sub merged with and into Dun & Bradstreet with Dun & Bradstreet continuing as the surviving corporation. The transaction is referred to as the "Take-Private Transaction." See further discussion on Note 15.

The completion of the Take-Private Transaction resulted in the following:

- Parent issued 206,787.3617 Class A units for $2,048.4 million, net of equity syndication fee of $19.5 million, which was contributed to Dun & Bradstreet Holdings, Inc. In addition, Parent issued 6,817.7428 units of Class B and 32,987.0078 units of Class C profits interest.
- Dun & Bradstreet Holdings, Inc. issued 314,494,968 shares of common stock to Parent and 1,050,000 shares of Series A Preferred Stock for $1,028.4 million, net of issuance discount of $21.6 million.
- Merger Sub entered into a credit facility agreement and issued debt on February 8, 2019. See Note 6 for further discussion.
- The Company used the proceeds from the issuances of common and preferred shares and the debt financing to (i) finance and consummate the Take-Private Transaction and other transactions, including to fund nonqualified pension and deferred compensation plan obligations (ii) repay in full all outstanding indebtedness under Dun & Bradstreet's then-existing senior secured credit facilities, (iii) fund the redemption and discharge of all of Dun & Bradstreet's then-existing senior notes and (iv) pay related fees, costs, premiums and expenses in connection with these transactions.
- Merger Sub merged with and into D&B with D&B continuing as the surviving corporation.

As a result of the Take-Private Transaction on February 8, 2019, the merger was accounted for in accordance with ASC 805, "Business Combinations" ("ASC 805"), and Dun & Bradstreet Holdings, Inc. was determined to be the accounting acquirer. The accompanying consolidated financial statements and information are presented on a Successor and Predecessor basis. References to Predecessor refer to the results of operations, cash flows and financial position of The Dun & Bradstreet Corporation and its subsidiaries prior to the closing of the Take-Private Transaction. References to Successor refer to the consolidated financial position of Dun & Bradstreet Holdings, Inc. and its subsidiaries as of December 31, 2021 and December 31, 2020, and the results of operations and cash flows of Dun & Bradstreet Holdings, Inc. and its subsidiaries for the years ended December 31, 2021 and December 31, 2020 and the period from January 1, 2019 to December 31, 2019. During the period from January 1, 2019 to February 7, 2019, Dun & Bradstreet Holdings, Inc. had no significant operations and limited assets and had only incurred transaction related expenses prior to the Take-Private Transaction. The Successor periods include the consolidated results of operations, cash flows and financial position of Dun & Bradstreet and its subsidiaries on and after February 8, 2019. The Predecessor and Successor consolidated financial information presented herein is not comparable primarily due to the impacts of the Take-Private Transaction including the application of acquisition accounting in the Successor financial statements as of February 8, 2019, as further described in Note 15, of which the most significant impacts are (i) the increased amortization expense for intangible assets; (ii) additional interest expense associated with debt financing arrangements entered into in connection with the Take-Private Transaction; (iii) higher non-recurring transaction costs and the pension settlement charge attributable to the Take-Private Transaction; and (iv) a shorter Successor period for our International operations.

Initial Public Offering ("IPO") and Private Placement

On July 6, 2020, we completed an IPO of 90,047,612 shares of our common stock, par value $0.0001 per share at a public offering price of $22.00 per share. Immediately subsequent to the closing of the IPO, a subsidiary of Cannae Holdings, a subsidiary of Black Knight and affiliates of CC Capital purchased a total of 18,458,700 shares of common stock from us in a private placement at a price per share equal to 98.5% of the IPO price, or $21.67 per share, for proceeds of $200.0 million, $100.0 million and $100.0 million, respectively. A total of 108,506,312 shares of common stock were issued in the IPO and concurrent private placement for gross proceeds of $2,381.0 million. The use of the proceeds from the IPO and concurrent private placement was as follows:

(Tabular dollar amounts, except share data and per share data, in millions)

Gross proceeds	$	2,381.0
Less:		
Underwriter fees		89.1
IPO related expenses (a)		42.8
Redemption of Series A Preferred Stock		1,067.9
Make-whole payment on redemption of Series A Preferred Stock		205.2
Partial redemption of 10.250% Senior Unsecured Notes and accrued interest		312.0
Call premium on partial redemption of 10.250% Senior Unsecured Notes		30.8
Partial redemption of 6.875% Senior Secured Notes and accrued interest		282.2
Call premium on partial redemption of 6.875% Senior Secured Notes		19.3
Cash to balance sheet	$	331.7

(a) Includes payment of $30.0 million to the Originating Sponsors (see Note 19), in connection with the waiver and termination of anti-dilution rights in the Star Parent Partnership Agreement. Also in connection with the IPO transaction, we paid fees of $2.5 million each to Thomas H. Lee Partners, L.P. ("THL") Managers and entities affiliated with William P. Foley II and Chinh E. Chu (Bilcar, LLC and CC Star Holdings, LP, respectively) for services provided.

In connection with the IPO, the following transactions occurred:

- On June 23, 2020, we increased our authorized common stock to 2,000,000,000 and our authorized preferred stock to 25,000,000 and effected a 314,494.968 for 1 stock split of our common stock. All of the common share and per share information in the consolidated financial statements for the Successor periods have been retroactively adjusted to reflect the increase in authorized common stock and stock split.

- All outstanding equity incentive awards in the form of profits interests were converted into common units of Star Parent, L.P. which retain the original time-based vesting schedule and are subject to the same forfeiture terms applicable to such unvested units.

- In connection with the IPO, we adopted the Dun & Bradstreet 2020 Omnibus Incentive Plan (the "2020 Omnibus Incentive Plan"). See further discussion in Note 11.

Preferred Stock

In connection with the Privatization Transaction on February 8, 2019, Dun & Bradstreet Holdings, Inc. issued 1,050,000 shares of Cumulative Series A Preferred Stock ("Series A Preferred Stock") for $1,028.4 million, net of issuance discount of $21.6 million. The Series A Preferred Stock was redeemable upon the occurrence of a material event including a qualified IPO at an applicable price depending on when the redemption event occurred. The Company classified the Series A Preferred Stock as mezzanine equity because the instrument contained a redemption feature which was contingent upon certain events, the occurrence of which was not solely within the control of the Company.

Upon the closing of the IPO on July 6, 2020 (see above discussion), we redeemed all of the outstanding Series A Preferred Stock. In addition, we made the total make-whole payment of $205.2 million.

Prior to the redemption of the preferred stocks, we bifurcated embedded derivatives and assessed fair value each reporting date. Beginning in November 2019, we determined that there was a more than remote likelihood that the Series A Preferred Stock would become redeemable before November 8, 2021. As a result we determined the fair value of the make-whole provision to be $172.4 million at December 31, 2019, which was included within "Other income (expense) - net" in the statement of operations and comprehensive income (loss) for the period from January 1, 2019 to December 31, 2019 (Successor) and reflected as "Make-whole derivative liability" within the consolidated balance sheet as of December 31, 2019. For the year ended December 31, 2020 up to redemption, we recorded a loss of $32.8 million within "Other income (expense) - net," related to the change of fair value during the period. The fair value was estimated using the with and without method and based on management’s estimate of probability of the triggering event associated with the make-whole derivative liability.

(Tabular dollar amounts, except share data and per share data, in millions)

The Series A Preferred Stock was fully accreted to the redeemable balance of $1,067.9 million using the interest method upon the redemption. We recorded accretion of $36.1 million and $3.4 million to the mezzanine equity using interest method for the year ended December 31, 2020 (Successor) and for the period from January 1, 2019 to December 31, 2019 (Successor), respectively.

On May 14, 2020, March 4, 2020, December 16, 2019, July 30, 2019 and May 31, 2019, the board of directors of Dun & Bradstreet Holdings, Inc. declared a cash dividend of $30.51 per share to all holders of shares of Series A Preferred Stock. An aggregate amount of $32.1 million, $32.0 million, $32.0 million, $32.1 million, $10.7 million and $21.3 million was paid on June 26, 2020, March 27, 2020, December 27, 2019, September 27, 2019, June 28, 2019 and on June 19, 2019, respectively.

Reporting Segments

We manage our business and report our financial results through the following two segments:

- North America offers Finance & Risk and Sales & Marketing data, analytics and business insights in the United States and Canada; and
- International offers Finance & Risk and Sales & Marketing data, analytics and business insights directly in the United Kingdom and Ireland ("U.K."), Nordics (Sweden, Norway, Denmark and Finland), DACH (Germany, Austria and Switzerland) and CEE (Central and Eastern Europe) countries ("Europe"), Greater China, India and indirectly through our Worldwide Network alliances ("WWN alliances").

All intercompany transactions and balances have been eliminated in consolidation.

Elimination of International Lag Reporting

Historically our consolidated financial statements which have a year-end of December 31, reflected results of subsidiaries outside of North America on a one-month lag with a year-end of November 30. Effective January 1, 2021, we eliminated the one-month reporting lag for our subsidiaries outside of North America and aligned the year-end for all subsidiaries to December 31. The elimination of this reporting lag represented a change in accounting principle, which the Company believes to be preferable as it provides investors with the most current information. This change in accounting policy was applied retrospectively to all periods since February 8, 2019 ("Successor periods") after the Take-Private Transaction. The Consolidated Balance Sheet as of December 31, 2020, the Consolidated Statement of Operations and Comprehensive Income (Loss), the Consolidated Statements of Cash Flows and the Consolidated Statements of Stockholder Equity (Deficit) for the year ended December 31, 2020 and the period from January 1, 2019 to December 31, 2019 (Successor) have been recast to reflect this change in accounting policy. The following table presents a summary of the changes to the results for the year ended December 31, 2020 and period from January 1, 2019 to December 31, 2019 (Successor):

	Revenue	Operating income (loss)	Income (loss) before provision (benefit) for income taxes and equity in net income of affiliates	Provision (benefit) for income taxes	Net income (loss) attributable to Dun & Bradstreet Holdings, Inc.	Basic earnings (loss) per share of common stock attributable to Dun & Bradstreet Holdings, Inc.	Diluted earnings (loss) per share of common stock attributable to Dun & Bradstreet Holdings, Inc.
Year ended December 31, 2020							
As Reported	$ 1,738.1	$ 63.0	$ (219.3)	$ (110.5)	$ (175.6)	$ (0.48)	$ (0.48)
Increase (Decrease)	0.6	(7.4)	(7.1)	(1.9)	(5.0)	(0.01)	(0.01)
As Revised	$ 1,738.7	$ 55.6	$ (226.4)	$ (112.4)	$ (180.6)	$ (0.49)	$ (0.49)
Period from January 1, 2019 to December 31, 2019							
As Reported	$ 1,413.9	$ (220.0)	$ (675.9)	$ (118.2)	$ (674.0)	$ (2.14)	$ (2.14)
Increase (Decrease)	25.1	(1.7)	(0.3)	(0.1)	(0.1)	—	—
As Revised	$ 1,439.0	$ (221.7)	$ (676.2)	$ (118.3)	$ (674.1)	$ (2.14)	$ (2.14)

(Tabular dollar amounts, except share data and per share data, in millions)

The following table presents a summary of the changes to the assets, liabilities and equity:

	As Reported	Increase (Decrease)	As Revised
Total Assets as of December 31, 2020	$ 9,219.4	$ 0.9	$ 9,220.3
Total Liabilities as of December 31, 2020	$ 5,641.7	$ (5.3)	$ 5,636.4
Total Equity as of January 1, 2020	$ 1,577.7	$ (0.4)	$ 1,577.3
Total Equity as of December 31, 2020	$ 3,577.7	$ 6.2	$ 3,583.9

The following table presents a summary of the changes to the results of statement of cash flows for the year ended December 31, 2020 and period from January 1, 2019 to December 31, 2019:

	Net cash provided by (used in) operating activities	Net cash provided by (used in) investing activities	Net cash provided by (used in) financing activities
Year ended December 31, 2020:			
As Reported	$ 195.6	$ (134.3)	$ 189.3
Increase (Decrease)	9.9	0.5	(0.7)
As Revised	$ 205.5	$ (133.8)	$ 188.6
Period from January 1, 2019 to December 31, 2019:			
As Reported	$ (63.0)	$ (6,154.6)	$ 6,321.8
Increase (Decrease)	(7.5)	(2.1)	(0.1)
As Revised	$ (70.5)	$ (6,156.7)	$ 6,321.7

Where appropriate, we have reclassified certain prior year amounts to conform to the current year presentation.

Note 2 - Significant Accounting Policies

Revenue Recognition

Revenue is recognized when promised goods or services are transferred to clients in an amount that reflects the consideration to which we expect to be entitled in exchange for those goods or services by following a five-step process, (1) identify the contract with a client, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price, and (5) recognize revenue when or as we satisfy a performance obligation.

We generate revenue from licensing our data and providing related data services to our clients. Our data is integrated into our hosted or on-premise software applications. Data is also delivered directly into client third-party applications (or our on-premise applications) using our application programming interfaces ("API") or as computer files. Some of our data and reports can be purchased through our websites individually or in packages.

Most of our revenue comes from clients we contract with directly. We also license data, trademarks and related technology and support services to our Worldwide Network partners for exclusive distribution of our products to clients in their territories. We also license our data to our alliance partners who use the data to enhance their own products or enable it to be seamlessly delivered to their customers.

Revenue is net of any sales or indirect taxes collected from clients, which are subsequently remitted to government authorities.

Performance Obligations and Revenue Recognition

All our clients license our data and/or software applications. The license term is generally a minimum of 12 months and non-cancelable. If the client can benefit from the license only in conjunction with a related service, the license is not distinct and is combined with the other services as a single performance obligation.

We recognize revenue when (or as) we satisfy a performance obligation by transferring promised licenses and or services underlying the performance obligation to the client. Some of our performance obligations are satisfied over time as the product is transferred to the client. Performance obligations which are not satisfied over time are satisfied at a point in time.

Determining whether the products and services in a contract are distinct and identifying the performance obligations requires judgment. When we assess contracts with clients we determine if the data we promise to transfer to the client is individually distinct or is combined with other licenses or services which together form a distinct product or service and a performance obligation. We also consider if we promise to transfer a specific quantity of data or provide unlimited access to data.

We determined that when clients can purchase a specified quantity of data based on their selection criteria and data layout, each data record is distinct and a performance obligation, satisfied on delivery. If we promise to update the initial data set at specified intervals, each update is a performance obligation, which we satisfy when the update data is delivered.

When we provide clients continuous access to the latest data using our API-based and online products, the client can consume and benefit from this content daily as we provide access to the data. We determined that for this type of offering our overall promise is a service of daily access to data which represents a single performance obligation satisfied over time. We recognize revenue ratably for this type of performance obligation.

Clients can purchase unlimited access to data in many of our products for the non-cancelable contract term. These contracts are priced based on their anticipated usage volume of the product and we have the right to increase the transaction price in the following contract year if usage in the current contract year exceeds certain prescribed limits. The limits are set at a level that the client is unlikely to exceed so in general, we fully constrain any variable consideration until it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur when the uncertainty is resolved. For these contracts the performance obligation is satisfied over time as we provide continuous access to the data. We recognize revenue ratably over the contract term.

For products sold under our annual and monthly discount plans the client receives a discount based on the amount they commit to spend annually, or the actual amount spent at the end of each monthly billing cycle. Each report or data packet purchased is a separate performance obligation which is satisfied when the report or data packet is delivered. The client can also purchase a monitoring service on the report or data packet which is a performance obligation satisfied over time because the client benefits from the service as we monitor the data and provide alerts when the data changes. We recognize revenue ratably over the monitoring period.

In some contracts, including annual discount plans, the client commits to spend a fixed amount on the products. Breakage occurs if the client does not exercise all their purchasing rights under the contract. We recognize breakage at the end of the contract when the likelihood of the client exercising their remaining rights becomes remote.

Many of our contracts provide the client an option to purchase additional products. If the option provides the client a discount which is incremental to discounts typically given for those products, the contract provides the client a material right that it would not receive without entering into the contract. An amount of the transaction price is allocated to the material right performance obligation and is recognized when the client exercises the option or when the option expires.

We have long-term contracts with our Worldwide Network partners. These contracts are typically for an initial term of up to 10 years and automatically renew for further terms unless notice is given before the end of the initial or renewal term. We grant each partner the exclusive right to sell our products in the countries that constitute their territory. We provide them access to data, use of our brand and technology and other services and support necessary for them to sell our products and services in their territory. We determined this arrangement is a series of distinct services and represents a single performance obligation satisfied over time. These contracts contain multiple streams of consideration, some of which are fixed and some are variable. These variable amounts are allocated to the specific service period during which the sales or usage occurred if the variable amount is commensurate with the benefit to the client of the additional service and is consistent with our customary pricing practices. Otherwise the variable amount is accounted for as a change in the transaction price for the contract. We recognize revenue ratably for this performance obligation.

We license our data to our alliance partners. Most contracts specify the number of licensed records or data sets to be delivered. If the licenses are distinct, we satisfy them on delivery of the data. Contract consideration is often a sales or usage-based royalty, sometimes accompanied by a guaranteed minimum amount. Any fixed consideration is allocated to each performance obligation based on the standalone selling price of the data. We apply the variable consideration exception for license revenue in the form of royalties when the license is the sole or predominant item to which the royalty relates. Royalty revenue is recognized when the later of the following events have occurred: (1) the subsequent sale or usage occurs or (2) the performance obligation to which some or all the royalty has been allocated has been satisfied (or partially satisfied).

Contracts with Multiple Performance Obligations

Our contracts with clients often include promises to transfer multiple performance obligations. For these contracts we allocate the transaction price to each performance obligation in the contract on a relative standalone selling price basis. The standalone selling price is the price at which we would sell the promised service separately to a client. We use the observable price based on prices in contracts with similar clients in similar circumstances. When the standalone selling price is not directly observable from actual standalone sales, we estimate a standalone selling price making maximum use of any observable data and estimates of what a client in the market would be willing to pay for those goods or services.

We allocate variable consideration to a performance obligation or a distinct product if the terms of the variable payment relate specifically to our efforts to satisfy the performance obligation or transfer the distinct product and the allocation is consistent with the allocation objective. If these conditions are not met or the transaction price changes for other reasons after contract inception, we allocate the change on the same basis as at contract inception.

Contract Combinations and Modifications

Many of our clients have multiple contracts for various products. Contracts entered into at or near the same time with the same client are combined into a single contract when they are negotiated together with a single commercial objective or the contracts are related in other ways.

Contract modifications are accounted for as a separate contract if additional products are distinct and the transaction price increases by an amount that reflects the standalone selling prices of the additional products. Otherwise, we generally account for the modifications as if they were the termination of the existing contracts and creation of new contracts if the remaining products are distinct from the products transferred before the modification. The new transaction price is the unrecognized revenue from the existing contracts plus the new consideration. This amount is allocated to the remaining performance obligations based on the relative standalone selling prices.

Restructuring Charges

Restructuring charges have been recorded in accordance with Accounting Standards Codification ("ASC") 712-10, "Nonretirement Postemployment Benefits," or "ASC 712-10," and/or ASC 420-10, "Exit or Disposal Cost Obligations," or "ASC 420-10," as appropriate.

Effective January 1, 2019, we adopted ASU No. 2016-02, "Leases (Topic 842)," and as a result, terminated contracts that meet the lease definition are no longer accounted for under ASC 420-10. Terminated lease obligations or lease obligations for facilities we no longer occupy are accounted for in accordance with Topic 842. Certain termination costs and obligations that do not meet the lease criteria continue to be accounted for in accordance with ASC 420-10. Right of use assets are assessed for impairment in accordance to Topic 360. Right of use asset impairment charges and lease costs related to facilities we ceased to occupy are reflected in "Restructuring charges."

We record severance costs provided under an ongoing benefit arrangement once they are both probable and estimable in accordance with the provisions of ASC 712-10.

We account for one-time termination benefits and contract terminations in accordance with ASC 420-10, which addresses financial accounting and reporting for costs associated with restructuring activities. Under ASC 420-10, we establish a liability for a cost associated with an exit or disposal activity, including severance and other lease costs, when the liability is incurred, rather than at the date that we commit to an exit plan. We reassess the expected cost to complete the exit or disposal activities at the end of each reporting period and adjust our remaining estimated liabilities, if necessary.

The determination of when we accrue for severance costs and which standard applies depends on whether the termination benefits are provided under an ongoing arrangement as described in ASC 712-10 or under a one-time benefit arrangement as defined by ASC 420-10. Inherent in the estimation of the costs related to the restructuring activities are assessments related to the most likely expected outcome of the significant actions to accomplish the exit activities. In determining the charges related to the restructuring activities, we have to make estimates related to the expenses associated with the restructuring activities. These estimates may vary significantly from actual costs depending, in part, upon factors that may be beyond our control. We will continue to review the status of our restructuring obligations on a quarterly basis and, if appropriate, record changes to these obligations in current operations based on management’s most current estimates.

Leases

In accordance with Topic 842, at the inception of a contract, we assess whether the contract is, or contains, a lease. A contract contains a lease if it conveys to us the right to control the use of property, plant and equipment (an identified asset). We control the identified asset if we have a right to substantially all the economic benefits from use of the asset and the right to direct its use for a period of time.

Most of our leases expire over the next eight years, with the majority expiring within two years. Leases may include options to early terminate the lease or renew at the end of the initial term. Generally, these lease terms do not affect the term of the lease because we are not reasonably certain that we will exercise our option.

We use the incremental borrowing rate to determine the present value of the lease payments because the implicit rate is generally not available to a lessee. We determine the incremental borrowing rate using an applicable reference rate (LIBOR or LIBOR equivalent or local currency swap rates) considering both currency and lease term, combined with our estimated borrowing spread for secured borrowings.

We recognize operating lease expense on a straight-line basis over the term of the lease. Lease payments may be fixed or variable. Only lease payments that are fixed, in-substance fixed or depend on a rate or index are included in determining the lease liability. Variable lease payments include payments made to the lessor for taxes, insurance and maintenance of the leased asset and are recognized as operating costs as incurred.

We apply certain practical expedients allowed by Topic 842. Lease payments for leases with an initial term of 12 months or less are not included in right of use assets or operating lease liabilities. Instead they are recognized as short term lease operating costs on a straight-line basis over the term. We have also elected not to separate lease and non-lease components for our office leases. We separate the lease components from the non-lease components using the relative standalone selling prices of each component for all our other leased asset classes. We estimate the standalone selling prices using observable prices, and if they are not available, we estimate the price. Non-lease components include maintenance and other services provided in the contract related to the leased asset. Non-lease components are recognized in accordance with other applicable accounting policies. See Note 7.

Prior to the adoption of Topic 842, we expensed the net fixed payments of operating leases on a straight-line basis over the lease term as required under the prior lease accounting standard ASC 840. Under the prior lease accounting standard, lease assets and liabilities were not required to be recognized.

Employee Benefit Plans

We provide various defined benefit plans to our employees as well as health care benefits to our retired employees. We use actuarial assumptions to calculate pension and benefit costs as well as pension assets and liabilities included in the consolidated financial statements. See Note 10.

Legal Contingencies

We are involved in legal proceedings, claims and litigation arising in the ordinary course of business for which we believe we have adequate reserves, and such reserves are not material to the consolidated financial statements. In addition, from time to time we may be involved in additional matters which could become material and for which we may also establish reserve amounts as discussed in Note 8. We record a liability when management believes that it is both probable that a liability has been incurred and we can reasonably estimate the amount of the loss. For such matters where management believes a liability is not probable but is reasonably possible, a liability is not recorded; instead, an estimate of loss or range of loss, if material individually or in the aggregate, is disclosed if reasonably estimable, or a statement will be made that an estimate of loss cannot be made. As additional information becomes available, we adjust our assessment and estimates of such liabilities accordingly.

Cash and Cash Equivalents

We consider all investments purchased with an initial term from the date of purchase by the Company to maturity of three months or less to be cash equivalents. These instruments are stated at cost, which approximates fair value because of the short maturity of the instruments.

Accounts Receivable Trade and Contract Assets

We classify the right to consideration in exchange for products or services transferred to a client as either a receivable or a contract asset. A receivable is a right to consideration that is unconditional. Receivables include amounts billed and currently due from clients.

A contract asset is a right to consideration that is conditional upon factors other than the passage of time. Contract assets include unbilled amounts typically resulting from sale of long-term contracts when the revenue exceeds the amount billed to the client, and the right to payment is not subject to the passage of time. Amounts may not exceed their net realizable value.

Accounts Receivable Allowances

In order to determine an estimate of expected credit losses, receivables are segmented based on similar risk characteristics including historical credit loss patterns and industry or class of customers to calculate reserve rates. The Company uses an aging method for developing its allowance for credit losses by which receivable balances are stratified based on aging category. A reserve rate is calculated for each aging category which is generally based on historical information. The reserve rate is adjusted, when necessary, for current conditions (e.g., macroeconomic or industry related) and forecasts about the future. The Company also considers customer specific information (e.g., bankruptcy or financial difficulty) when estimating its expected credit losses, as well as the economic environment of the customers, both from an industry and geographic perspective, in evaluating the need for allowances.

Expected credit losses are added to the accounts receivable allowance. Actual uncollectible account write-offs are recorded against the allowance. The Company adopted the new accounting standard on Financial Instruments - Credit Losses (Topic 326) effective January 1, 2020.

Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation, except for property, plant and equipment that have been impaired for which the carrying amount is reduced to the estimated fair value at the impairment date. Property, plant and equipment are generally depreciated on a straight-line basis over their estimated useful lives. Our recently acquired headquarters building and related site improvements are depreciated over a period of 53 years and 14 years, respectively. See Note 17. Equipment, including furniture, is depreciated over a period of three to ten years. Leasehold improvements are amortized on a straight-line basis over the shorter of the term of the lease or the estimated useful life of the improvement.

Computer Software

Computer software includes capitalized software development costs for various computer software applications for internal use, including systems which support our databases and common business services and processes (back-end systems), our financial and administrative systems (back-office systems) and systems which we use to deliver our information solutions to clients (client-facing systems). Computer software also includes purchased software and software recognized in connection with acquisitions.

Costs incurred during a software development project's preliminary stage and post-implementation stage are expensed as incurred. Development activities that are eligible for capitalization include software design and configuration, development of interfaces, coding, testing, and installation. Capitalized costs are amortized on a straight-line basis over the estimated lives which range from three to eight years, beginning when the related software is ready for its intended use.

We enter into cloud computing arrangements to access third party software without taking possession of the software. We assess development activities required to implement such services and defer certain implementation costs directly related to the hosted software that would be eligible for capitalization for internal-use software projects. Deferred implementation costs related to these service arrangements do not qualify as capitalized software and are required to be expensed over the term of the service arrangement, beginning when the implementation activities, including testing, are substantially completed and the related software is operational for users.

We periodically reassess the estimated useful lives of our computer software considering our overall technology strategy, the effects of obsolescence, technology, competition and other economic factors on the useful life of these assets.

Computer software and deferred implementation costs are tested for impairment along with other long-lived assets (See Impairment of Long-Lived Assets below).

Goodwill and Indefinite-Lived Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized and are tested for impairment at least annually at December 31 and more often if an event occurs or circumstances change which indicate it is more likely than not that fair value is less than carrying amount. If a qualitative assessment identifies that it is more likely than not that the carrying value of a reporting unit or an indefinite-lived intangible asset exceeds its estimated fair value, an additional quantitative evaluation is performed. The annual impairment tests of goodwill and indefinite-lived intangible assets may be completed through qualitative assessments. We may elect to bypass the qualitative assessment and proceed directly to a quantitative impairment test for goodwill or indefinite-lived intangible assets in any period. We may resume the qualitative assessment for any reporting unit or indefinite-lived intangible asset in any subsequent period.

Goodwill

We assess recoverability of goodwill at the reporting unit level. A reporting unit is an operating segment or a component of an operating segment which is a business and for which discrete financial information is available and reviewed by a segment manager. Our reporting units are Finance & Risk and Sales & Marketing within the North America segment, and U.K., Europe, Greater China, India and our WWN alliances within the International segment.

For the qualitative goodwill impairment test, we analyze actual and projected reporting unit growth trends for revenue and profits, as well as historical performance. We also assess critical factors that may have an impact on the reporting units, including macroeconomic conditions, market-related exposures, regulatory environment, cost factors, changes in the carrying amount of net assets, any plans to dispose of all or part of the reporting unit, and other reporting unit specific factors such as changes in key personnel, strategy, customers or competition. In addition, we assess whether the market value of the Company compared to the book amounts are indicative of an impairment.

For the quantitative goodwill impairment test, we determine the fair value of our reporting units based on the market approach and also in certain instances using the income approach to further validate our results. Under the market approach, we estimate the fair value based on market multiples of current year EBITDA for each individual reporting unit. We use judgment in identifying the relevant comparable company market multiples (e.g., recent divestitures or acquisitions, facts and circumstances surrounding the market, dominance, growth rate, etc.). For the income approach, we use the discounted cash flow method to estimate the fair value of a reporting unit. The projected cash flows are based on management’s most recent view of the long-term outlook for each reporting unit. Factors specific to each reporting unit could include revenue growth, profit margins, terminal value, capital expenditure projections, assumed tax rates, discount rates and other assumptions deemed reasonable by management.

An impairment charge is recorded if a reporting unit’s carrying value exceeds its fair value. The impairment charge is also limited to the amount of goodwill allocated to the reporting unit. An impairment charge, if any, is recorded as an operating cost in the period that the impairment is identified.

For 2021, 2020 and 2019, we performed qualitative tests for each of our reporting units and the results of our tests indicated that it was not more likely than not that the goodwill in any reporting unit was impaired.

See Note 18 to the consolidated financial statements for further detail on goodwill by segment.

Indefinite-Lived Intangible Assets

Under the qualitative approach, we perform impairment tests for indefinite-lived intangible assets based on macroeconomic and market conditions, industry considerations, overall performance and other relevant factors. If we elect to bypass the qualitative assessment for any indefinite-lived intangible asset, or if a qualitative assessment indicates it is more likely than not that the estimated carrying amount of such asset exceeds its fair value, we proceed to a quantitative approach.

Under the quantitative approach, we estimate the fair value of the indefinite-lived intangible asset and compare it to its carrying value. An impairment loss is recognized if the carrying value exceeds the fair value. The estimated fair value is determined primarily using income approach based on the expected present value of the projected cash flows of the assets.

Our indefinite-lived intangible assets are primarily related to the Dun & Bradstreet trade name which was recognized in connection with the Take-Private Transaction. As a result of the impairment tests performed using quantitative approach, no impairment charges for indefinite-lived intangible assets have been recognized for the years ended December 31, 2021 and 2020, the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor).

Definite-Lived Intangible Assets

Other amortizable intangible assets are recognized in connection with acquisitions. They are amortized over their respective useful life, based on the timing of the benefits derived from each of the intangible assets. Definite-lived intangible assets are also assessed for impairment. Below is a summary of weighted average amortization period for intangible assets at December 31, 2021.

	Weighted average amortization period (years)
Intangible assets:	
Reacquired right	15
Database	17
Customer relationships	17
Technology	10
Partnership agreements	14
Trademark	2

Impairment of Long-Lived Assets

Long-lived assets, including property, plant and equipment, right of use assets, internal-use software and other intangible assets held for use, are tested for impairment when events or circumstances indicate the carrying amount of the asset group that includes these assets is not recoverable. An asset group is the lowest level for which its cash flows are independent of the cash flows of other asset groups. The carrying value of an asset group is considered unrecoverable if the carrying value exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset group. The impairment loss is measured by the difference between the carrying value of the asset group and its fair value. We generally estimate the fair value of an asset group using an income approach or quoted market price, whichever is applicable.

Income Taxes

We are subject to income taxes in the United States and many foreign jurisdictions. In determining our consolidated provision for income taxes for financial statement purposes, we must make certain estimates and judgments. These estimates and judgments affect the determination of the recoverability of certain deferred tax assets and the calculation of certain tax liabilities, which arise from temporary differences between the tax and financial statement recognition of revenue, expenses and net operating losses.

In evaluating our ability to recover our deferred tax assets, we consider all available positive and negative evidence, including our past operating results, the existence of cumulative losses in the most recent years and our forecast of future taxable income. In estimating future taxable income, we develop assumptions, including the amount of future pre-tax operating income, the reversal of temporary differences, and the implementation of feasible and prudent tax planning strategies. These assumptions require judgment about the forecasts of future taxable income and are consistent with the plans and estimates we are using to manage the underlying businesses.

We currently have recorded valuation allowances that we will maintain until it is more likely than not the deferred tax assets will be realized. Our income tax expense recorded in the future may be reduced to the extent of decreases in our valuation allowances. The realization of our remaining deferred tax assets is primarily dependent on future taxable income in the appropriate jurisdiction. Any reduction in future taxable income may require that we record an additional valuation allowance against our deferred tax assets. An increase in a valuation allowance could result in additional income tax expense in such period and could have a significant impact on our future earnings. Changes in tax laws and rates could also affect recorded deferred tax assets and liabilities in the future. Management records the effect of a tax rate or law change on our deferred tax assets and liabilities in the period of enactment. Future tax rate or law changes could have a material effect on our financial condition, results of operations or cash flows.

Foreign Currency Translation

For all operations outside the United States where the local currency is the functional currency, assets and liabilities are translated using the end-of-year exchange rates, and revenues and expenses are translated using monthly average exchange rates. For those countries where the local currency is the functional currency, translation adjustments are accumulated in a separate component of stockholder equity. Foreign currency transaction gains and losses are recognized in earnings in the consolidated statement of operations and comprehensive income (loss). We recorded net foreign currency transaction losses of $5.2 million, gains of $7.1 million, losses of $16.1 million and losses of $0.8 million for the years ended December 31, 2021 and 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively.

Earnings Per Share ("EPS") of Common Stock

Basic earnings (loss) per share is computed by dividing net income (loss) by the weighted average number of common shares outstanding for the period. Diluted earnings per share is computed based on the weighted average number of common shares outstanding plus the dilutive effect of our outstanding stock incentive awards. In the case of a net loss, the dilutive effect of the awards outstanding are not included in the computation of the diluted loss per share as the effect of including these shares in the calculation would be anti-dilutive. The dilutive effect of awards outstanding under the stock incentive plans reflected in diluted earnings per share was calculated under the treasury stock method.

Stock-Based Compensation

Stock-based compensation expense is recognized over the award’s vesting period on a straight-line basis. The compensation expense is determined based on the grant date fair value. For restricted stock, grant date fair value is based on the closing price of our stock on the date of grant. For stock options, we estimate the grant date fair value using the Black-Scholes valuation model. We recognize forfeitures and the corresponding reductions in expense as they occur. Subsequent to the Take-Private Transaction, our common stock was not publicly traded for a period of time. Thus, estimating grant date fair value prior to the IPO required us to make assumptions including stock price, expected time to liquidity, expected volatility and discount for lack of marketability. The fair value of the underlying shares prior to the IPO was determined contemporaneously with the grants.

For our 2019 grants, we determined stock price per unit equal to the closing price of our Class A equity unit price on February 8, 2019, also the closing date of the Take-Private Transaction. Approximately 94% of the units issued in 2019 were granted in February and March 2019 and almost all of the rest were granted by June 2019. As these grant dates were shortly after the Take-Private Transaction and there were no indications that the value of our Company changed, we believe the Take-Private Transaction date price approximates our fair value on each of the grant dates.

For the expected time to liquidity assumption, management estimated, on the valuation date, the expected change of control or liquidity event was approximately three and half years. The estimate was based on available facts and circumstances on the valuation date, such as our performance and outlook, investors’ strategy and need for liquidity, market conditions, and our financing needs, among other things.

During the time that our stock was not traded publicly, to quantify the appropriate illiquidity or lack of marketability discount inherent in the profits interest units, the protective put method was used. The lack of marketability discount was estimated as the value (or cost) of an at-the-money put option with the same expected holding period as the profits interest units, divided by the stock value.

For the expected volatility assumption after the Take-Private Transaction, we utilize the observable data of a group of similar public companies ("peer group") to develop our volatility assumption. The expected volatility of our stock is determined based on the range of the measure of the implied volatility and the historical volatility for our peer group of companies, re-levered to reflect our capital structure and debt, for a period which is commensurate with the expected holding period of the units.

Our stock-based compensation programs are described more fully in Note 11.

Financial Instruments

From time to time we use financial instruments, including foreign exchange forward contracts, foreign exchange option contracts and interest rate derivatives, to manage our exposure to movements in foreign exchange rates and interest rates. The use of these financial instruments modifies our exposure to these risks in order to minimize the potential negative impact and/or to reduce the volatility that these risks may have on our financial results.

We may use foreign exchange forward and foreign exchange option contracts to hedge certain non-functional currency denominated intercompany and third-party transactions. In addition, foreign exchange forward and foreign exchange option contracts may be used to hedge certain of our foreign net investments. From time to time, we may use interest rate swap contracts to hedge our long-term fixed-rate debt and/or our short-term variable-rate debt.

We recognize all such financial instruments on the balance sheet at their fair values, as either assets or liabilities, with an offset to earnings or other comprehensive earnings, depending on whether the derivative is designated as part of an effective hedge transaction and, if it is, the type of hedge transaction. If a derivative instrument meets hedge accounting criteria as prescribed in the applicable guidance, it is designated as one of the following on the date it is entered into:

Cash Flow Hedge—A hedge of the exposure to variability in the cash flows of a recognized asset, liability or a forecasted transaction. For qualifying cash flow hedges, the changes in fair value of hedging instruments are reported as Other comprehensive income (loss) ("OCI") and are reclassified to earnings in the same line item associated with the hedged item when the hedged item impacts earnings.

Fair Value Hedge—A hedge of the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment. For qualifying fair value hedges, the change in fair value of the hedged item attributable to the hedged risk and the change in the fair value of the hedge instrument is recognized in earnings and presented in the same income statement line item.

We formally document all relationships between hedging instruments and hedged items for a derivative to qualify as a hedge at inception and throughout the hedged period, and we have documented policies for managing our exposures. Derivative financial instruments qualifying for hedge accounting must maintain a specified level of effectiveness between the hedge instrument and the item being hedged. The hedge accounting effectiveness is monitored on an ongoing basis, and if considered ineffective, we discontinue hedge accounting prospectively. See Note 13.

Fair Value Measurements

We account for certain assets and liabilities at fair value, including purchase accounting applied to assets and liabilities acquired in a business combination and long-lived assets that are written down to fair value when they are impaired. We use the acquisition method of accounting for all business combinations. This method requires us to allocate the cost of the acquisition to the assets acquired and the liabilities assumed based on the estimates of fair value for such items, including intangible assets and technology acquired. The excess of the purchase consideration over the fair value of assets acquired and liabilities assumed is recorded as goodwill.We define fair value as the exchange price that would be received for an asset or paid to transfer a liability (in either case an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants at the measurement date. The inputs used to measure fair value are prioritized based on a three-level hierarchy. This hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level Input	**Input Definition**
Level I	Observable inputs utilizing quoted prices (unadjusted) for identical assets or liabilities in active markets at the measurement date.
Level II	Inputs other than quoted prices included in Level I that are either directly or indirectly observable for the asset or liability through corroboration with market data at the measurement date.
Level III	Unobservable inputs for the asset or liability in which little or no market data exists, therefore requiring management’s best estimate of what market participants would use in pricing the asset or liability at the measurement date.

In certain cases, the inputs used to measure fair value may fall into different levels of the fair value hierarchy. In such cases, the level in the fair value hierarchy within which the fair value measurement in its entirety falls has been determined based on the lowest level input that is significant to the fair value measurement in its entirety. Our assessment of the significance of a particular input to the fair value measurement in its entirety requires judgment and considers factors specific to the asset or liability. In the absence of active markets for the identical assets or liabilities, such measurements involve developing assumptions based on market observable data and, in the absence of such data, internal information that is consistent with what market participants would use in a hypothetical transaction that occurs at the measurement date. The determination of fair value often requires us to make significant estimates and assumptions such as determining an appropriate discount rate that factors in both risk and liquidity premiums, identifying the similarities and differences in market transactions, weighting those differences accordingly and then making the appropriate adjustments to those market transactions to reflect the risks specific to our assets and liabilities being valued. Other significant assumptions include us projecting future cash flows related to revenues and expenses based on our business plans and outlook which can be significantly impacted by our future growth opportunities, general market environment and geographic sentiment. We may use third-party valuation consultants to assist in the determination of such estimates. Accordingly, the estimates presented herein may not necessarily be indicative of amounts we could realize in a current market sale.

(Tabular dollar amounts, except share data and per share data, in millions)

Note 3 -- Recent Accounting Pronouncements

We consider the applicability and impact of all Accounting Standards Updates ("ASUs") and applicable authoritative guidance. The ASUs not listed below were assessed and determined to be either not applicable or are expected to have an immaterial impact on our consolidated financial position, results of operations and/or cash flows.

Recently Adopted Accounting Pronouncements

In December 2019, the FASB issued ASU No. 2019-12, "Income Taxes (Topic 740)." The amendments in this Update simplify the accounting for income taxes by removing certain exceptions to the general principles in Topic 740. The amendments also improve consistent application of and simplify GAAP for other areas of Topic 740 by clarifying and amending existing guidance. For public business entities, the amendments in this Update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2020. We adopted this update as of January 1, 2021. This update did not have a material impact on our consolidated financial statements.

In October 2021, the FASB issued ASU No. 2021-08, "Business Combinations (Topic 805) Accounting for Contract Assets and Contract Liabilities from Contracts with Customers." The amendments require an acquirer to recognize and measure contract assets and contract liabilities in a business combination based on the guidance of ASU No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" rather than fair value. For public business entities, the amendments in this update are effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2022. Early adoption of this ASU is permitted, including adoption in an interim period. If early adopted, the amendments are applied retrospectively to all business combinations for which the acquisition date occurred during the fiscal year of adoption. We early adopted this update during the fourth quarter of 2021. As a result of the adoption of this update, no fair value adjustments were made to the acquired deferred revenue balances for acquisitions completed in 2021. See Note 16 to the consolidated financial statements for further detail.

Note 4 -- Revenue

The total amount of the transaction price for our revenue contracts allocated to performance obligations that are unsatisfied (or partially unsatisfied) as of December 31, 2021 is as follows:

	2022	2023	2024	2025	2026	Thereafter	Total
Future revenue	$ 1,283.7	$ 592.3	$ 326.1	$ 159.7	$ 116.9	$ 299.4	$ 2,778.1

The table of future revenue does not include any amount of variable consideration that is a sales or usage-based royalty in exchange for distinct data licenses or that is allocated to a distinct service period within a single performance obligation that is a series of distinct service periods.

(Tabular dollar amounts, except share data and per share data, in millions)

Timing of Revenue Recognition

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Revenue recognized at a point in time	$ 931.8	$ 762.7	$ 731.4	$ 91.4
Revenue recognized over time	1,233.8	976.0	707.6	87.3
Total revenue recognized	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7

Contract Balances

	At December 31, 2021	At December 31, 2020	At December 31, 2019
Accounts receivable, net	$ 401.7	$ 319.3	$ 272.2
Short-term contract assets (1)	$ 3.4	$ 0.7	$ 1.0
Long-term contract assets (2)	$ 9.1	$ 3.8	$ 2.5
Short-term deferred revenue	$ 569.4	$ 477.2	$ 473.4
Long-term deferred revenue (3)	$ 13.7	$ 14.6	$ 5.8

(1) Included within other current assets in the consolidated balance sheet

(2) Included within other non-current assets in the consolidated balance sheet

(3) Included within other non-current liabilities in the consolidated balance sheet

The increase in deferred revenue of $91.3 million from December 31, 2020 to December 31, 2021 was primarily due to cash payments received or due in advance of satisfying our performance obligations, and the acquisition of Bisnode, largely offset by approximately $428.9 million of revenue recognized that was included in the deferred revenue balance at December 31, 2020. See Note 16 for further discussion with regard to the acquisition of Bisnode.

The increase in contract assets of $8.0 million from December 31, 2020 to December 31, 2021 was primarily due to new contract assets recognized, net of new amounts reclassified to receivables during 2021, largely offset by $2.1 million of contract assets included in the balance at December 31, 2020 that were reclassified to receivables when they became unconditional.

The increase in deferred revenue of $12.6 million from December 31, 2019 to December 31, 2020 was primarily due to cash payments received or due in advance of satisfying our performance obligations, largely offset by approximately $477.1 million of revenue recognized that were included in the deferred revenue balance at December 31, 2019, net of the purchase accounting fair value adjustment as a result of our Take-Private Transaction in February 2019.

The increase in contract assets of $1.0 million from December 31, 2019 to December 31, 2020 was primarily due to new contract assets recognized, net of new amounts reclassified to receivables during 2020, largely offset by $3.0 million of contract assets included in the balance at January 1, 2020 that were reclassified to receivables when they became unconditional.

See Note 18 for a schedule providing a further disaggregation of revenue.

Assets Recognized for the Costs to Obtain a Contract

Commission assets, net of accumulated amortization included in deferred costs in the consolidated balance sheet, was $116.1 million and $83.8 million as of December 31, 2021 and December 31, 2020, respectively.

The amortization of commission assets reflected in selling and administrative expenses within the consolidated income statement, is as follows:

(Tabular dollar amounts, except share data and per share data, in millions)

Period	Amortization	
Year ended December 31, 2021 (Successor)	$	27.1
Year ended December 31, 2020 (Successor)	$	17.0
Period from January 1 to December 31, 2019 (Successor)	$	4.7
Period from January 1 to February 7, 2019 (Predecessor)	$	3.2

Note 5 -- Restructuring Charges

We incurred restructuring charges (which generally consist of employee severance and termination costs, and contract terminations). These charges were incurred as a result of eliminating, consolidating, standardizing and/or automating our business functions.

We recorded a restructuring charge of $25.1 million for the year ended December 31, 2021. This charge consists of:

- Severance costs of $18.9 million under ongoing benefit arrangements. Approximately 190 employees were impacted. Most of the employees impacted exited the Company by the end of 2021. The cash payments for these employees will be substantially completed by the end of the first quarter of 2022; and

- Contract termination, write down of right of use assets and other exit costs, including those to consolidate or close facilities of $6.2 million.

We recorded a restructuring charge of $37.3 million for the year ended December 31, 2020. This charge consists of:

- Severance costs of $9.9 million under ongoing benefit arrangements. Approximately 165 employees were impacted. Most of the employees impacted exited the Company by the end of 2020. The cash payments for these employees were substantially completed by the end of the second quarter of 2021; and

- Contract termination, impairment of right of use assets and other exit costs, including those to consolidate or close facilities of $27.4 million.

We recorded a restructuring charge of $52.3 million for the year ended December 31, 2019 (Successor) and $0.1 million for the period from January 1, 2019 to February 7, 2019 (Predecessor). These charges consist of:

- Severance costs of $36.6 million (Successor) and $0.1 million (Predecessor) under ongoing benefit arrangements. Approximately 540 employees were impacted and exited the Company by the end of 2019. The cash payments for these employees were substantially completed by the end of the first quarter of 2020; and

- Contract termination, write down of right of use assets and other exit costs, including those to consolidate or close facilities of $15.7 million (Successor).

(Tabular dollar amounts, except share data and per share data, in millions)

The following table sets forth the restructuring reserves and utilization:

	Severance and termination	Contract termination and other exit costs	Total
Predecessor:			
Balance as of December 31, 2018	$ 4.7	$ 2.9	$ 7.6
Charge taken from January 1 to February 7, 2019	0.1	—	0.1
Payments made through February 7, 2019	(1.6)	(0.5)	(2.1)
Reclassification related to leases pursuant to the adoption of Topic 842	—	(2.4)	(2.4)
Balance remaining as of February 7, 2019	$ 3.2	$ —	$ 3.2
Successor:			
Balance as of December 31, 2018	$ —	$ —	$ —
Impact of purchase accounting	3.2	—	3.2
Charge taken during 2019 (1)	36.6	12.2	48.8
Payments and other adjustments made during 2019	(34.0)	(7.7)	(41.7)
Balance remaining as of December 31, 2019	$ 5.8	$ 4.5	$ 10.3
Charge taken during 2020 (1)	9.9	5.9	15.8
Payments made during 2020	(13.1)	(3.3)	(16.4)
Balance remaining as of December 31, 2020	$ 2.6	$ 7.1	$ 9.7
Charge taken during 2021 (1)	18.9	—	18.9
Payments made during 2021	(16.8)	(3.8)	(20.6)
Balance remaining as of December 31, 2021	$ 4.7	$ 3.3	$ 8.0

(1) Balance excludes charges accounted for under Topic 842. See Note 7 "Leases" for further discussion.

Note 6 -- Notes Payable and Indebtedness

Our borrowings are summarized in the following table:

		At December 31, 2021			At December 31, 2020		
	Maturity	Principal amount	Debt issuance costs and discount*	Carrying value	Principal amount	Debt issuance costs and discount*	Carrying value
Debt maturing within one year:							
Term loan facility (1)		$ 28.1	$ —	$ 28.1	$ 25.3	$ —	$ 25.3
Total short-term debt		$ 28.1	$ —	$ 28.1	$ 25.3	$ —	$ 25.3
Debt maturing after one year:							
Term loan facility (1)	February 8, 2026	$ 2,754.8	$ 64.5	$ 2,690.3	$ 2,485.7	$ 77.1	$ 2,408.6
Revolving facility (1) (2)	September 11, 2025	160.0	—	160.0	—	—	—
5.000% Senior unsecured notes (1)	December 15, 2029	460.0	6.8	453.2	—	—	—
6.875% Senior secured notes (1)	August 15, 2026	420.0	6.8	413.2	420.0	8.2	411.8
10.250% Senior unsecured notes (1)	Fully paid off in December 2021	—	—	—	450.0	14.6	435.4
Total long-term debt		$ 3,794.8	$ 78.1	$ 3,716.7	$ 3,355.7	$ 99.9	$ 3,255.8
Total debt		$ 3,822.9	$ 78.1	$ 3,744.8	$ 3,381.0	$ 99.9	$ 3,281.1

*Represents the unamortized portion of debt issuance costs and discounts.

(1) The 5.000% Senior Unsecured Notes, the Senior Secured Credit Facilities, the 6.875% Senior Secured and the 10.250% Unsecured Notes contain certain covenants that limit our ability to incur additional indebtedness and guarantee indebtedness, create liens, engage in mergers or acquisitions, sell, transfer or otherwise dispose of assets, pay dividends and distributions or repurchase capital stock, prepay certain indebtedness and make investments, loans and advances. We were in compliance with these non-financial covenants at December 31, 2021 and December 31, 2020.

(2) The Revolving Facility contains a springing financial covenant requiring compliance with a maximum ratio of first lien net indebtedness to consolidated EBITDA of 6.75. The financial covenant applies only if the aggregate principal amount of borrowings under the Revolving Facility and certain outstanding letters of credit exceeds 35% of the total amount of commitments under the Revolving Facility on the last day of any fiscal quarter. The financial covenant did not apply at December 31, 2021 and December 31, 2020.

Successor Debt

On August 8, 2018, a consortium of investors formed a Delaware limited partnership, Star Parent, L.P. and Star Merger Sub, Inc. ("Merger Sub"), and subsequently formed subsidiaries including Dun & Bradstreet Holdings, Inc., Star Intermediate II, LLC and Star Intermediate III, LLC. Also on August 8, 2018, Dun & Bradstreet entered into an Agreement and Plan of Merger (the "Merger Agreement") with Star Parent, L.P. and Merger Sub. On February 8, 2019, pursuant to the terms of the Merger Agreement, Merger Sub merged with and into Dun & Bradstreet with Dun & Bradstreet continuing as the surviving corporation. The transaction is referred to as the "Take-Private Transaction." In connection with the Take-Private Transaction on February 8, 2019, the Company entered into a credit agreement governing its Senior Secured Credit Facilities (the "Senior Secured Credit Facilities"). The Senior Secured Credit Facilities provided for (i) a seven year senior secured term loan facility in an aggregate principal amount of $2,530 million (the "Term Loan Facility:); (ii) a five year senior secured revolving credit facility in an aggregate principal amount of $400 million (the "Revolving Facility"); and (iii) a 364-day repatriation bridge facility in an aggregate amount of $63 million (the "Repatriation Bridge Loan"). The closing of the Senior Secured Credit Facilities was conditional on the redemption of the Predecessor debt. Also on February 8, 2019, Merger Sub, which was merged into Dun & Bradstreet upon the closing of the Take-Private Transaction, issued $700 million in aggregate principal amount of 6.875% Senior Secured Notes due 2026 and $750 million in aggregate principal amount of 10.250% Senior Unsecured Notes due 2027. Together with the equity contributions from the investors, the proceeds from these financing transactions were used to (i) finance and consummate the Take-Private Transaction and other transactions, including to fund non-qualified pension and deferred compensation plan obligations; (ii) repay in full all outstanding indebtedness under the Company's then-existing senior secured credit facilities; (iii) fund the redemption and discharge of all of the Company's then-existing senior notes; and (iv) pay related fees, costs, premiums and expenses in connection with these transactions.

Initial debt issuance costs of $31.6 million and $17.9 million related to the 10.250% Senior Unsecured Notes and the 6.875% Senior Secured Notes, respectively, were recorded as a reduction of the carrying amount of the notes and amortized over the contractual term of the notes. The Senior Secured Notes and the Senior Unsecured Notes may be redeemed at our option, in whole or in part, following specified events and on specified redemption dates and at the redemption prices specified in the indenture governing the Senior Secured Notes and the Senior Unsecured Notes.

On July 6, 2020, we completed an IPO and concurrent private placement (see Note 1) and received gross proceeds from the transaction of $2,381.0 million. In connection with the IPO and concurrent private placement, we repaid $300 million in aggregate principal amount of our 10.250% Senior Unsecured Notes on July 6, 2020. As a result, the associated deferred debt issuance costs and discount of $10.5 million were written off. In addition, we were required to pay a premium of $30.8 million related to the repayment, for which we recorded an expense. Both were accrued and reflected within "Non-operating income (expense) – net" for the year ended December 31, 2020. The remaining debt issuance costs of $15.7 million continue to be amortized over the remaining term of the notes through the date of the full redemption (see discussion below).

On September 26, 2020, we repaid $280 million in aggregate principal amount of our 6.875% Senior Secured Notes. As a result, the associated deferred debt issuance costs and discount of $5.7 million were written off. In addition, we were required to pay a premium of $19.3 million related to the repayment, for which we recorded an expense. Both were recorded within "Non-operating income (expense)-net" for the year ended December 31, 2020. The remaining debt issuance costs of $8.6 million continue to be amortized over the remaining term of the notes.

On December 20, 2021, we issued $460 million in aggregate principal amount of 5.000% Senior Unsecured Notes due December 15, 2029. The proceeds from the issuance of Senior Unsecured Notes and cash on hand were used to fund the full redemption of the $450 million in aggregate principal amount of our 10.250% Senior Unsecured Notes due 2027, inclusive of an early redemption premium of $29.5 million, accrued interest and other fees and expenses. As a result of the redemption, we recorded a loss on debt extinguishment of $42.0 million as the difference between the settlement payments of $479.5 million and the carrying amount of the debt of $437.5 million, including unamortized debt issuance costs of $12.5 million. The loss was recorded within “Non-operating income (expense)-net” for the year ended December 31, 2021. Initial debt issuance costs of $6.9 million related to the 5.000% Senior Unsecured Notes were recorded as a reduction of the carrying amount of the notes and will be amortized over the contractual term of the notes.

Senior Secured Credit Facilities

Borrowings under the Senior Secured Credit Facilities bear interest at a rate per annum equal to an applicable margin over a LIBOR rate for the interest period relevant to such borrowing, subject to interest rate floors, and they are secured by substantially all of the Company’s assets. The debt issuance costs of $62.1 million and discount of $50.6 million related to the Term Loan facility were recorded as a reduction of the carrying amount of the Term Loan Facility and are being amortized over the term of the facility. Initial debt issuance costs of $9.6 million related to the Revolving Facility were included in "Other non-current assets" on the consolidated balance sheet and amortized over the term of the Revolving Facility.

Other details of the Senior Secured Credit Facilities:

- As required by the credit agreement, beginning June 30, 2020, the principal amount of the Term Loan Facility is being paid down in equal quarterly installments in an aggregate annual amount equal to 1.00% of the original principal amount, with the balance being payable on February 8, 2026. The margin to LIBOR was 500 basis points initially. On February 10, 2020, an amendment was made to the credit agreement, specifically related to the Term Loan Facility, which reduced the margin to LIBOR to 400 basis points. The maturity date for the Term Loan Facility remains February 8, 2026 and no changes were made to the financial covenants or scheduled amortization. In connection with the term loan repricing, we incurred $0.8 million of third-party fees and wrote off $6.2 million of deferred debt issuance costs and discount related to changes in syndicated lenders. Both were recorded within “Other income (expense)-net” for the year ended December 31, 2020. Subsequent to the IPO transaction, the spread was further reduced by 25 basis points to 375 basis points. On January 27, 2021, the spread was reduced by 50 basis points to 325 basis points. The interest rate associated with the outstanding balances of the Term Loan Facility at December 31, 2021 and December 31, 2020 were 3.352% and 3.898%, respectively.

- The margin to LIBOR for borrowings under the Revolving Facility was 350 basis points initially. Subsequent to the IPO transaction, the spread was reduced by 25 basis points to 325 basis points, subject to a ratio-based pricing grid. The aggregate amount available under the Revolving Facility is $850 million. The available borrowing under the Revolving Facility at December 31, 2021 was $690 million and the interest rate associated with the outstanding balance of the Revolving Facility at December 31, 2021 was 3.104%. There was no outstanding balance at December 31, 2020.

- The Repatriation Bridge Facility matured on February 7, 2020. Debt issuance costs of $1.5 million were recorded as a reduction of the carrying amount of the Repatriation Bridge Facility and were amortized over the term of the Repatriation Bridge Facility. The margin to LIBOR was 350 basis points. The outstanding balance of the Repatriation Bridge Facility was fully repaid in February 2020.

On September 11, 2020, we amended our credit agreement dated February 8, 2019, specifically related to the Revolving Facility. The amendment increases the aggregate amount available under the Revolving Facility from $400 million to $850 million, and resets the Revolving Facility maturity date, from February 8, 2024, to September 11, 2025. As a result of the amendment, we wrote off $0.8 million deferred debt issuance costs related to changes in syndication lenders and reported within “Non-operating income (expense) – net” for the year ended December 31, 2020. The remaining deferred debt issuance costs of together with the additional issuance costs of $1.7 million incurred in connection with the amendment, are being amortized over the new five-year term.

On November 18, 2020, we amended our credit agreement dated February 8, 2019, specifically related to the Term Loan Facility. The amendment establishes an Incremental Term Loan in an aggregate principle amount of $300 million. The proceeds of the Incremental Term Loan were drawn and used in January 2021 to finance a portion of the purchase price for the acquisition of the outstanding shares of Bisnode. The issuance discount of $2.6 million was recorded as a reduction of the carrying amount of the Incremental Term Loan and amortized over the remaining term of the loan. The Incremental Term Loan has the same terms as the existing term loan.

On January 27, 2021, we amended our credit agreement dated February 8, 2019, specifically related to the Term Loan Facility to reduce the applicable margin for the term loan facility by 0.50% overall, resulting in a margin spread of LIBOR plus 3.25% per annum or the applicable base rate plus 2.25% per annum and establish a 0.25% step down in the applicable margin if the Company maintains a rating of at least B+ from Standard & Poor's Investors Ratings Services and receives at least B1 from Moody's Investors Service.

(Tabular dollar amounts, except share data and per share data, in millions)

Below table sets forth the scheduled maturities and interest payments for our total debt outstanding as of December 31, 2021, plus the Incremental Term Loan of $460 million established on January 18, 2022 (see Note 22):

	2022 (a)	2023	2024	2025	2026	Thereafter	Total
Debt principal outstanding as of December 31, 2021	$ 448.1	$ 28.1	$ 28.1	$ 188.1	$ 2,670.5	$ 460.0	$ 3,822.9
Interest associated with debt outstanding as of December 31, 2021 (b)	149.4	119.9	119.0	116.6	32.4	69.0	606.3
Incremental Term Loan - Principal (c)	3.5	4.6	4.6	4.6	4.6	438.1	460.0
Incremental Term Loan - Interest (c)	15.2	15.0	14.9	14.7	14.6	29.4	103.8
Total debt and interest	$ 616.2	$ 167.6	$ 166.6	$ 324.0	$ 2,722.1	$ 996.5	$ 4,993.0

(a) Amounts reflect the redemption of the $420 million 6.875% Senior Secured Notes (see Note 22).

(b) Includes $28.6 million in 2022 of which $16.3 million related to payment for early redemption premium and $12.3 million related to payment for accrued interest for the 6.875% Senior Secured Notes.

(c) Amounts reflect the Incremental Term Loan of $460 million established on January 18, 2022 (see Note 22).

Retired Predecessor Debt

In connection with the Take-Private Transaction, we repaid in full all outstanding indebtedness under the Predecessor Term Loan Facility and Revolving Credit Facility and funded the redemption and discharge of the Predecessor senior notes, inclusive of a make-whole payment of $25.1 million, which was considered in our determination of the acquisition date fair value of the Predecessor senior notes as part of purchase accounting. The transactions were accounted for as a debt extinguishment in accordance with ASC 470-50, "Debt—Modifications and Extinguishments." The payoff of the Predecessor debt was a condition of the closing of Successor debt financing. Total unamortized debt issuance costs and discount of $6.6 million related to the Predecessor Term Loan Facility and Revolving Credit Facility were allocated zero value as part of purchase accounting. The weighted average interest rate associated with the outstanding balances related to the Predecessor Revolving Credit Facility prior to retirement as of February 7, 2019 was 3.66% and as of December 31, 2018 was 3.72%. The interest rate associated with the outstanding balances related to the Predecessor Term Loan Facility prior to retirement as of February 7, 2019 was 4.00% and as of December 31, 2018 was 4.01%.

Other

We were contingently liable under open standby letters of credit and bank guarantees issued by our banks in favor of third parties totaling $13.5 million at December 31, 2021 and $5.9 million at December 31, 2020.

On March 30, 2021, we entered into three-year interest rate swaps with an aggregate notional amount of $1 billion. The interest rate swaps under the April 20, 2018 agreement expired on April 27, 2021. The objective of the swaps is to mitigate the variation of future cash flows from changes in the floating interest rates on our existing debt. See further discussion in Note 13 to our consolidated financial statements.

Note 7 — Leases

Effective January 1, 2019, we adopted Topic 842. We recognized $91.9 million and $112.9 million of existing operating leases as right of use assets and lease liabilities, respectively, effective January 1, 2019.

(Tabular dollar amounts, except share data and per share data, in millions)

The right of use assets and lease liabilities included in our balance sheet are as follows:

	December 31, 2021	December 31, 2020
Right of use assets included in other non-current assets	$ 71.9	$ 64.8
Short-term operating lease liabilities included in other accrued and current liabilities	$ 26.0	$ 23.4
Long-term operating lease liabilities included in other non-current liabilities	59.4	62.5
Total operating lease liabilities	$ 85.4	$ 85.9

We recognized $33.6 million for both right of use assets and lease liabilities related to new operating leases for the year ended December 31, 2021, primarily related to acquired assets in connection with acquisitions during 2021.

The operating lease cost, supplemental cash flow and other information, and maturity analysis for leases is as follows:

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Operating lease costs	$ 28.1	$ 26.9	$ 24.6	$ 2.8
Variable lease costs	5.1	3.1	3.9	1.0
Short-term lease costs	1.6	0.4	0.2	—
Sublease income	(2.4)	(0.8)	(0.7)	(0.1)
Total lease costs	$ 32.4	$ 29.6	$ 28.0	$ 3.7

We recorded impairment charge of $1.9 million and $17.5 million for the years ended December 31, 2021 and 2020, respectively, primarily as a result of our decision to shift our workforce model to working remotely in the United States and certain international markets.

Cash paid for operating leases is included in operating cash flows and was $36.8 million, $28.1 million, $23.7 million and $5.9 million for the years ended December 31, 2021 and 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor) and for the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively.

The maturity analysis for operating lease liabilities is as follows:

	December 31, 2021
2022	$ 29.7
2023	20.5
2024	15.4
2025	13.1
2026	9.5
Thereafter	7.2
Undiscounted cash flows	$ 95.4
Less imputed interest	10.0
Total operating lease liabilities	$ 85.4

Other supplemental information on remaining lease term and discount rate is as follows:

(Tabular dollar amounts, except share data and per share data, in millions)

	December 31, 2021	December 31, 2020
Weighted average remaining lease term (in years)	4.3	4.7
Weighted average discount rate	5.0 %	5.5 %

Note 8 -- Contingencies

In the ordinary course of business, we are involved in various pending and threatened litigation and regulatory matters related to our operations, such as claims brought by our clients in connection with commercial disputes, defamation claims by subjects of our reporting, and employment claims made by our current or former employees, some of which include claims for punitive or exemplary damages. Our ordinary course litigation may also include class action lawsuits, which make allegations related to various aspects of our business. From time to time, we are also subject to regulatory investigations or other proceedings by state and federal regulatory authorities as well as authorities outside of the U.S., some of which take the form of civil investigative demands or subpoenas. Some of these regulatory inquiries may result in the assessment of fines for violations of regulations or settlements with such authorities requiring a variety of remedies. We believe that none of these actions depart from customary litigation or regulatory inquiries incidental to our business.

We review lawsuits and other legal and regulatory matters (collectively "legal proceedings") on an ongoing basis when making accrual and disclosure decisions. When assessing reasonably possible and probable outcomes, management bases its decision on its assessment of the ultimate outcome assuming all appeals have been exhausted. For legal proceedings where it has been determined that a loss is both probable and reasonably estimable, a liability based on known facts and which represents our best estimate has been recorded. Actual losses may materially differ from the amounts recorded and the ultimate outcome of our pending cases is generally not yet determinable.

While some of these matters could be material to our operating results or cash flows for any particular period if an unfavorable outcome results, at present we do not believe the ultimate resolution of currently pending legal proceedings, either individually or in the aggregate, will have a material adverse effect on our financial condition.

In addition, in the normal course of business, and including without limitation, our merger and acquisition activities, strategic relationships and financing transactions, the Company indemnifies other parties, including clients, lessors and parties to other transactions with the Company, with respect to certain matters. We have agreed to hold the other parties harmless against losses arising from a breach of representations or covenants, or arising out of other claims made against certain parties. These agreements may limit the time within which an indemnification claim can be made and the amount of the claim. The Company has also entered into indemnity obligations with its officers and directors.

Federal Trade Commission Investigation

On April 10, 2018, the Federal Trade Commission (the "FTC" or the "Commission") issued a Civil Investigative Demand (“CID”) to Dun & Bradstreet, Inc. ("D&B Inc.," a wholly-owned subsidiary of the Company) related to an investigation by the FTC into potential violations of Section 5 of the Federal Trade Commission Act (the "FTC Act"), primarily concerning our credit managing and monitoring products such as CreditBuilder. D&B Inc. completed its response to the CID in November 2018. On May 28, 2019, the FTC staff informed D&B Inc. that it believes that certain of D&B’s practices violated Section 5 of the FTC Act, and informed D&B Inc. that it had been given authority by the FTC’s Bureau of Consumer Protection to engage in consent negotiations. Following discussions between the Company and the FTC staff, on September 9, 2019, the FTC issued a second CID seeking additional information, data and documents. The Company completed its response to the second CID in April 2020. In a letter dated March 2, 2020, the FTC staff identified areas of interest related to the CIDs and we completed our responses to the letter on April 7, 2020. On April 20, 2020, the FTC and D&B Inc. entered a tolling agreement with respect to potential claims related to the subject matter of the investigation. On February 23, 2021, the FTC staff provided D&B Inc. with a draft complaint and consent order outlining its allegations and the forms of relief sought, and advised that it had been given authority to engage in consent negotiations. Following consent negotiations, on September 21, 2021, D&B Inc. agreed to enter in an Agreement Containing Consent Order ("Consent Agreement"). On January 13, 2022, the FTC informed the Company that the Commission had voted to accept the Consent Agreement. On January 19, 2022, the Consent Agreement was published in the Federal Register, triggering a 30-day public comment period that ended on February 18, 2022. The Consent Agreement remains subject to final approval by the Commission following the public comment period.

(Tabular dollar amounts, except share data and per share data, in millions)

In accordance with ASC 450, an amount in respect of this matter was accrued in the consolidated financial statements during the first quarter of 2021. The amount of any loss has not been fully determined, and it is possible that the amount could exceed the amount accrued and that the amount of such additional loss could be material.

DeBose v. Dun & Bradstreet Holdings, Inc., No. 2:22-cv-00209-ES-CLW (D.N.J.)

On January 17, 2022, Plaintiff Rashad DeBose filed a Class Action Complaint against the Company, alleging that the Company used the purported class members' names and personas to promote paid subscriptions to the Company's Hoovers product website without consent, in violation of the Ohio right of publicity statute and Ohio common law prohibiting misappropriation of a name or likeness. As this matter was recently filed and the Company is in the very early stages of investigating this matter, the Company has not yet completed its evaluation of the claims or its defenses.

In accordance with ASC 450 Contingencies, similar to what is stated above, as the Company is in the very early stage of investigating the claims, we therefore have no basis to determine that a loss in connection with this matter is probable, reasonably possible or estimable, and thus no reserve has been established nor has a range of loss been disclosed.

Note 9 -- Income Taxes

Income (loss) before provision for income taxes consisted of:

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
U.S.	$ (266.0)	$ (401.1)	$ (810.8)	$ (131.7)
Non-U.S	220.8	174.7	134.6	28.9
Income (loss) before provision for income taxes and equity in net income of affiliates	$ (45.2)	$ (226.4)	$ (676.2)	$ (102.8)

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Current tax provision:				
U.S. Federal	$ 56.9	$ (29.9)	$ (0.3)	$ (11.1)
State and local	13.8	7.2	1.6	(3.4)
Non-U.S.	40.1	28.0	15.7	4.8
Total current tax provision	$ 110.8	$ 5.3	$ 17.0	$ (9.7)
Deferred tax provision:				
U.S. Federal	$ (92.6)	$ (100.7)	$ (109.8)	$ (14.8)
State and local	15.1	(16.9)	(23.5)	(3.0)
Non-U.S.	(9.9)	(0.1)	(2.0)	—
Total deferred tax provision	$ (87.4)	$ (117.7)	$ (135.3)	$ (17.8)
Provision (benefit) for income taxes	$ 23.4	$ (112.4)	$ (118.3)	$ (27.5)

(Tabular dollar amounts, except share data and per share data, in millions)

The following table summarizes the significant differences between the U.S. Federal statutory tax rate and our effective tax rate for financial statement purposes:

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Statutory tax rate	21.0 %	21.0 %	21.0 %	21.0 %
State and local taxes, net of U.S. Federal tax benefits (1)	(58.0)	5.7	3.4	7.0
Nondeductible charges (2)	(5.3)	(1.2)	(3.7)	(1.4)
Change in fair value of make-whole derivative liability (3)	—	(3.0)	(5.4)	—
U.S. taxes on foreign income	(9.5)	(0.9)	(0.4)	(0.2)
Non-U.S. taxes (6)	23.2	3.6	1.4	1.2
Valuation allowance	(2.9)	(0.2)	4.0	—
Legacy transaction costs (4)	—	—	—	6.8
Interest	0.5	(0.2)	(0.1)	—
Tax credits and deductions (6)	30.4	6.7	1.8	0.5
Tax contingencies related to uncertain tax positions (4)	0.7	(0.8)	(0.4)	(8.2)
GILTI tax (6)	(51.6)	(8.2)	(4.4)	—
CARES Act (5)	—	25.5	—	—
Other	(0.3)	1.6	0.3	—
Effective tax rate	(51.8)%	49.6 %	17.5 %	26.7 %

(1) The impact for 2021 reflects the impact of state apportionment changes to our net U.S. deferred taxes as a result of our corporate headquarter move.

(2) The impact for 2021 reflects non-deductible compensation costs. The impact for 2020 reflects non-deductible transaction costs associated with our Initial Public Offering in July 2020. The impact for the 2019 Successor and Predecessor periods reflects non-deductible transaction costs associated with the Take-Private Transaction.

(3) The impact was due to the non-deductible mark to market expense for tax purposes. The change in fair value of make-whole derivative liability expense was associated with the make-whole provision liability for the Series A Preferred Stock.

(4) The impact for the Predecessor period from January 1 to February 8, 2019 was primarily related to deductible legacy transaction costs incurred in predecessor historical periods.

(5) The impact was due to the CARES Act which was signed into law on March 27, 2020. Among other provisions, the law provides that net operating losses arising in a tax year beginning in 2018, 2019, or 2020 can be carried back five years.

(6) Primarily due to the impact of lower consolidated pre-tax loss for the year ended December 31, 2021 compared to the year ended December 31, 2020.

Income taxes paid were $81.9 million, $118.2 million, $34.8 million and $3.3 million for the years ended December 31, 2021 and 2020 (Successor), the period from January 1 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. Income taxes refunded were $69.2 million, $1.3 million, $0.5 million and less than $0.1 million for the years ended December 31, 2021 and 2020 (Successor), the period from January 1 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively.

(Tabular dollar amounts, except share data and per share data, in millions)

Deferred tax assets (liabilities) are comprised of the following:

	December 31, 2021	December 31, 2020
Deferred tax assets:		
Operating losses	$ 69.3	$ 63.9
Interest expense carryforward	121.4	93.5
Restructuring charges	3.6	2.3
Bad debts	5.3	4.9
Accrued expenses	15.4	9.3
Capital loss and credit carryforwards	15.7	14.0
Pension and postretirement benefits	30.9	70.8
ASC 842 - Lease liability	4.9	18.3
Other	11.4	9.2
Total deferred tax assets	$ 277.9	$ 286.2
Valuation allowance	(39.4)	(36.6)
Net deferred tax assets	$ 238.5	$ 249.6
Deferred tax liabilities:		
Intangibles	$ (1,417.5)	$ (1,319.6)
Foreign exchange	—	(6.3)
Fixed assets	(5.1)	—
ASC 842 - ROU asset	(3.2)	(16.2)
Other	(1.4)	—
Total deferred tax liabilities	$ (1,427.2)	$ (1,342.1)
Net deferred tax (liabilities) assets	$ (1,188.7)	$ (1,092.5)

On December 22, 2017, the 2017 Act was signed into law in the U.S. Among other significant changes, the 2017 Act reduced the statutory federal income tax rate for U.S. corporate taxpayers from a maximum of 35 percent to 21 percent and required the deemed repatriation of foreign earnings not previously subject to U.S. taxation. As a result of the enactment of the 2017 Act, we no longer assert indefinite reinvestment for any historical unrepatriated earnings through December 31, 2017. We intend to reinvest indefinitely all earnings from our China and India subsidiaries earned after December 31, 2017 and therefore have not provided for deferred income and foreign withholding taxes related to these jurisdictions.

We have federal, state and local, and foreign tax loss carryforwards, the tax effect of which was $69.3 million as of December 31, 2021. Of the $69.3 million, $38.5 million have an indefinite carry-forward period with the remainder of $30.8 million expiring at various times between 2022 and 2041. Additionally, we have non-U.S. capital loss carryforwards. The associated tax effect was $13.3 million and $10.2 million as of December 31, 2021 and 2020, respectively.

We have established valuation allowances against certain U.S. state and non-U.S. net operating losses and capital loss carryforwards in the amounts of $38.8 million and $36.1 million as of December 31, 2021 and 2020, respectively. In our opinion, certain U.S. state and non-U.S. net operating losses and capital loss carryforwards are more likely than not to expire before we can utilize them.

We or one of our subsidiaries file income tax returns in the U.S. federal, and various state, local and foreign jurisdictions. In the U.S. federal jurisdiction, we are no longer subject to examination by the Internal Revenue Service (“IRS”) for years prior to 2018. In state and local jurisdictions, with a few exceptions, we are no longer subject to examinations by tax authorities for years prior to 2018. In foreign jurisdictions, with a few exceptions, we are no longer subject to examinations by tax authorities for years prior to 2015.

(Tabular dollar amounts, except share data and per share data, in millions)

The following is a reconciliation of the gross unrecognized tax benefits:

Predecessor:		
Gross unrecognized tax benefits as of December 31, 2018	$	5.4
Additions for current year's tax positions		8.9
Gross unrecognized tax benefits as of February 7, 2019	$	14.3
Successor:		
Gross unrecognized tax benefits as of January 1, 2019	$	—
Impact of purchase accounting		14.3
Additions for current year's tax positions		5.3
Settlements with taxing authority		(1.6)
Reduction in prior years' tax positions		(0.1)
Reduction due to expired statute of limitations (1)		(0.8)
Gross unrecognized tax benefits as of December 31, 2019	$	17.1
Additions for current year's tax positions		2.3
Increase in prior years' tax positions		0.3
Reduction due to expired statute of limitations (2)		(0.8)
Gross unrecognized tax benefits as of December 31, 2020	$	18.9
Additions for current year's tax positions		0.5
Increase in prior years' tax positions		0.6
Settlements with taxing authority		(0.4)
Reduction due to expired statute of limitations (3)		(1.0)
Gross unrecognized tax benefits as of December 31, 2021	$	18.6

(1) The decrease was primarily due to the release of reserves as a result of the expiration of the statute of limitations for the 2015 tax year.
(2) The decrease was primarily due to the release of reserves as a result of the expiration of the statute of limitations for the 2016 tax year.
(3) The decrease was primarily due to the release of reserves as a result of the expiration of the statute of limitations for the 2017 tax year.

The amount of gross unrecognized tax benefits of the $18.6 million that, if recognized, would impact the effective tax rate is $17.9 million, net of tax benefits.

We recognize accrued interest expense related to unrecognized tax benefits in the Provision (Benefit) for Income Taxes line in the consolidated statement of operations and comprehensive income (loss). The total amount of interest expense, net of tax benefits, recognized for the years ended December 31, 2021 and 2020 (Successor), the period from January 1 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor) was $0.8 million, $0.6 million, $0.3 million and $0.1 million, respectively. The total amount of accrued interest as of December 31, 2021 and 2020 was $1.3 million and $0.7 million, respectively.

Note 10 -- Pension and Postretirement Benefits

Through June 30, 2007, we offered coverage to substantially all of our U.S. based employees under a defined benefit plan called The Dun & Bradstreet Corporation Retirement Account ("U.S. Qualified Plan"). Prior to that time, the U.S. Qualified Plan covered active and retired employees. The benefits to be paid upon retirement were based on a percentage of the employee's annual compensation. The percentage of compensation allocated annually to a retirement account ranged from 3% to 12.5% based on age and years of service. Amounts allocated under the U.S. Qualified Plan receive interest credits based on the 30-year Treasury rate or equivalent rate published by the Internal Revenue Service. Pension costs are determined actuarially and are funded in accordance with the Internal Revenue Code.

Effective June 30, 2007, we amended the U.S. Qualified Plan. Any pension benefit that had been accrued through such date under the plan was "frozen" at its then current value and no additional benefits, other than interest on such amounts, will accrue under the U.S. Qualified Plan.

Our employees in certain of our international operations are also provided with retirement benefits through defined benefit plans, representing the remaining balance of our pension obligations.

Prior to February 7, 2019, we also maintained supplemental and excess plans in the United States ("U.S. Non-Qualified Plans") to provide additional retirement benefits to certain key employees of the Company. These plans were unfunded, pay-as-you-go plans. In connection with the Take-Private Transaction, a change in control was triggered for a portion of our U.S. Non-Qualified Plans upon the shareholder approval of the Take-Private Transaction on November 7, 2018 and a settlement payment of $190.5 million was made in January 2019. For the remainder of the U.S. Non-Qualified Plans, a change in control was triggered upon the close of the Take-Private Transaction on February 8, 2019 and a settlement payment of $105.9 million was made in March 2019, effectively settling our U.S. Non-Qualified Plan obligation.

Prior to January 1, 2019, we also provided various health care benefits for eligible retirees. Postretirement benefit costs and obligations are determined actuarially. Effective January 1, 2019, the pre-65 health plan was terminated and the post-65 health plan is closed to new participants. In addition, we closed our retiree life insurance plan to new participants, effective January 1, 2019.

Certain of our non-U.S. based employees receive postretirement benefits through government-sponsored or administered programs.

As a result of the elimination of the one-month lag reporting for the subsidiaries outside of North America, we remeasured our pension plans in the international markets based on measurement dates as of December 31, 2020 and 2019. The remeasurement had no material impact on the financial results for the periods presented.

(Tabular dollar amounts, except share data and per share data, in millions)

Benefit Obligation and Plan Assets

The following table sets forth the changes in our benefit obligations and plan assets for our pension and postretirement plans. The table also presents the line items in the consolidated balance sheet where the related assets and liabilities are recorded:

	Pension plans		Postretirement benefit obligations	
	Year ended December 31, 2021	Year ended December 31, 2020	Year ended December 31, 2021	Year ended December 31, 2020
Change in benefit obligation:				
Benefit obligation at beginning of year	$ (1,900.3)	$ (1,770.3)	$ (1.6)	$ (2.0)
Service cost	(5.2)	(1.8)	—	—
Interest cost	(27.4)	(42.2)	—	—
Benefits paid	94.1	86.8	0.2	0.8
Acquisitions	(87.4)	—	—	—
Plan amendment	0.3			
Settlement	0.1	7.7	—	—
Plan participants' contributions	(0.9)	(0.1)	—	(0.1)
Actuarial (loss) gain	85.3	(168.9)	0.1	(0.3)
Effect of changes in foreign currency exchange rates	9.0	(11.5)	—	—
Benefit obligation at end of year	$ (1,832.4)	$ (1,900.3)	$ (1.3)	$ (1.6)
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 1,620.4	$ 1,570.9	$ —	$ —
Actual return on plan assets	143.7	128.0	—	—
Acquisitions	22.0	—	—	—
Employer contributions	7.5	5.3	0.2	0.7
Plan participants' contributions	0.9	0.1	—	0.1
Benefits paid	(94.1)	(86.8)	(0.2)	(0.8)
Settlement	—	(7.7)	—	—
Effect of changes in foreign currency exchange rates	(4.0)	10.6	—	—
Fair value of plan assets at end of year	$ 1,696.4	$ 1,620.4	$ —	$ —
Net funded status of plan	$ (136.0)	$ (279.9)	$ (1.3)	$ (1.6)

(Tabular dollar amounts, except share data and per share data, in millions)

	Pension plans		Postretirement benefit obligations	
	December 31, 2021	December 31, 2020	December 31, 2021	December 31, 2020
Amounts recorded in the consolidated balance sheets:				
Prepaid pension assets (1)	$ 36.6	$ 4.3	$ —	$ —
Short-term pension and postretirement benefits (2)	(1.2)	(0.4)	(0.2)	(0.2)
Long-term pension and postretirement benefits (3)	(171.4)	(283.8)	(1.1)	(1.4)
Net amount recognized	$ (136.0)	$ (279.9)	$ (1.3)	$ (1.6)
Accumulated benefit obligation	$ 1,819.3	$ 1,890.6	N/A	N/A
Amount recognized in accumulated other comprehensive loss consists of:				
Actuarial loss (gain)	$ 14.5	$ 161.9	$ 0.1	$ 0.2
Prior service cost (credit)	0.1	0.5	(2.2)	(2.6)
Total amount recognized - pretax	$ 14.6	$ 162.4	$ (2.1)	$ (2.4)

(1) Included within other non-current assets in the consolidated balance sheet.

(2) Included within accrued payroll in the consolidated balance sheet.

(3) Included within long-term pension and postretirement benefits in the consolidated balance sheet.

The above actuarial loss (gain) and prior service cost and credit represent the cumulative effect of demographic, investment experience and plan amendment, as well as assumption changes that have been made in measuring the plans' liabilities since the Take-Private Transaction.

In addition, we provide retirement benefits to certain former executives. At December 31, 2021 and 2020, the associated obligations were $6.5 million and $6.9 million, respectively, of which $5.9 million and $6.3 million, respectively, were also reflected within "Long-term pension and postretirement benefits."

The actuarial gain or loss, to the extent it exceeds the greater of 10% of the projected benefit obligation or market-related value of plan assets, will be amortized into expense each year on a straight-line and plan-by-plan basis, over the remaining expected future working lifetime of active participants or the average remaining life expectancy of the participants if all or almost all of the plan participants are inactive. Currently, the amortization periods range from five to 21 years for the U.S. pension and postretirement plans and six to 31 years for the non-U.S. plans. For our U.S. Qualified Plan and for certain of our non-U.S. plans, the amortization periods are the average life expectancy of all plan participants. This is as a result of almost all plan participants being deemed inactive.

For the year ended December 31, 2021, significant changes in the pension projected benefit obligation include an actuarial gain of $85.3 million of which approximately $95 million was attributable to the change in discount rates, partially offset by loss of approximately $6 million resulting from the updates to the assumed cash balance conversion interest rates for our U.S. plan and loss of approximately $5 million due to the change in mortality assumptions. In connection with the Bisnode acquisition, we assumed pension liability of $87.4 million and plan assets of $22.0 million.

For the year ended December 31, 2020, significant changes in the pension projected benefit obligation include an actuarial loss of $168.9 million of which approximately $173 million loss was attributable to the change in discount rates, partially offset by gain of approximately $12 million resulting from the updates to the assumed cash balance conversion interest rates for our U.S. plan and gain of approximately $11 million due to the change in mortality assumptions.

(Tabular dollar amounts, except share data and per share data, in millions)

Underfunded or Unfunded Accumulated Benefit Obligations

At December 31, 2021 and December 31, 2020, our underfunded or unfunded accumulated benefit obligation and the related projected benefit obligation were as follows:

	2021	2020
Accumulated benefit obligation	$ 1,494.7	$ 1,864.2
Fair value of plan assets	1,328.1	1,588.4
Unfunded accumulated benefit obligation	$ 166.6	$ 275.8
Projected benefit obligation	$ 1,500.8	$ 1,872.5

The underfunded or unfunded accumulated benefit obligations at December 31, 2021 consisted of $105.4 million and $61.2 million related to our U.S. Qualified Plan and non-U.S. defined benefit plans, respectively.

The underfunded or unfunded accumulated benefit obligations at December 31, 2020 consisted of $268.7 million and $7.1 million related to our U.S. Qualified Plan and non-U.S. defined benefit plans, respectively.

The increase of $54.1 million for the underfunded or unfunded accumulated benefit obligations related to our non-U.S. defined benefit plans at December 31, 2021 was primarily due to the addition of the Bisnode pension plans.

Net Periodic Pension Cost

The following table sets forth the components of the net periodic cost (income) associated with our pension plans and our postretirement benefit obligations:

	Pension plans				Postretirement benefit obligations			
	Successor			Predecessor	Successor			Predecessor
Components of net periodic cost (income):	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Service cost	$ 5.2	$ 1.8	$ 1.5	$ 0.3	$ —	$ —	$ —	$ —
Interest cost	27.4	42.2	47.2	6.8	—	—	0.1	—
Expected return on plan assets	(83.0)	(88.0)	(83.8)	(10.6)	—	—	—	—
Amortization of prior service cost (credit)	2.3	—	—	—	(0.4)	(0.4)	—	(0.1)
Recognized actuarial loss (gain)	—	—	—	4.0	—	—	—	(0.1)
Net periodic cost (income)	$ (48.1)	$ (44.0)	$ (35.1)	$ 0.5	$ (0.4)	$ (0.4)	$ 0.1	$ (0.2)

We also incurred settlement charges of $0.6 million and $85.8 million for the year ended December 31, 2020 (Successor) and for the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively. Settlement charges for the period from January 1, 2019 to February 7, 2019 (Predecessor) was due to the settlement of a portion of our U.S. Non-Qualified plans triggered by the shareholder approval of the Take-Private Transaction.

(Tabular dollar amounts, except share data and per share data, in millions)

The following table sets forth other changes in plan assets and benefit obligations recognized in Other Comprehensive Income (Loss):

	Pension plans				Postretirement benefit obligations			
	Successor			Predecessor	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Other changes in plan assets and benefit obligations recognized in other comprehensive income (loss)								
Actuarial (loss) gain arising during the year, before tax benefit (expense) of $(38.3), $32.2 and $8.1 for the year ended December 31, 2021, the year ended December 31, 2020 and period from February 8 to December 31, 2019, respectively (1)	$ 145.1	$ (127.3)	$ (34.6)	$ —	$ 0.1	$ (0.4)	$ 0.2	$ —
Prior service credit (cost) arising during the year, before tax benefit (expense) of $(0.1), $0.1 and $(0.8) for the year ended December 31, 2021, the year ended December 31, 2020 and period from February 8 to December 31, 2019, respectively (1)	$ 0.3	$ (0.5)	$ —	$ —	$ —	$ (0.1)	$ 3.1	$ —
Less:								
Amortization of actuarial (loss) gain, before tax benefit (expense) of $0.6 and $(22.2) for the year ended December 31, 2021 and period from January 1 to February 7, 2019 respectively (2)	$ (2.3)	$ —	$ —	$ (87.7)	$ —	$ —	$ —	$ 0.1
Amortization of prior service (cost) credit, before tax benefit (expense) of less than $(0.1) and $(0.1) for the years ended December 31, 2021 and 2020	$ —	$ —	$ —	$ —	$ 0.4	$ 0.4	$ —	$ 0.1

(1) In connection with the Take-Private Transaction, we have remeasured our global pension and postretirement plans on February 8, 2019 in accordance with the guidance within ASC 805 and ASC 715 to recognize as part of the transaction an asset or a liability representing the funded status of each of the plans. The unrecognized actuarial losses or gains were set to zero as of February 8, 2019 as a result of purchase accounting.

(2) For the period from January 1 to February 7, 2019, amortization of actuarial loss included the impact of the settlement charge related to the U.S. Non-Qualified plans.

We apply the long-term expected rate of return assumption to the market-related value of assets to calculate the expected return on plan assets, which is a major component of our annual net periodic pension expense. The market-related value of assets recognizes short-term fluctuations in the fair value of assets over a period of five years, using a straight-line amortization basis. The methodology has been utilized to reduce the effect of short-term market fluctuations on the net periodic pension cost.

(Tabular dollar amounts, except share data and per share data, in millions)

Since the market-related value of assets recognizes gains or losses over a five-year period, the future value of assets will be impacted as previously deferred gains or losses are amortized.

Assumptions

The following table sets forth the significant weighted-average assumptions we used to determine the projected benefit obligation and the periodic benefit cost:

	Pension plans				Postretirement benefit obligations			
	Successor			Predecessor	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Discount rate for determining projected benefit obligation at December 31	2.38 %	1.98 %	2.79 %	3.57 %	1.80 %	1.20 %	2.35 %	3.64 %
Discount rate in effect for determining service cost	1.89 %	2.10 %	3.11 %	3.16 %	N/A	N/A	N/A	N/A
Discount rate in effect for determining interest cost	1.47 %	2.48 %	3.28 %	3.51 %	1.20 %	2.10 %	3.25 %	3.52 %
Weighted average expected long-term return on plan assets	5.70 %	6.18 %	6.70 %	6.56 %	N/A	N/A	N/A	N/A
Rate of compensation increase for determining projected benefit obligation at December 31	2.88 %	3.00 %	3.00 %	3.00 %	N/A	N/A	N/A	N/A
Rate of compensation increase for determining net pension cost	3.04 %	3.00 %	3.07 %	3.04 %	N/A	N/A	N/A	N/A

The expected long-term rate of return assumption was 6.00%, 6.50% and 7.00% for 2021, 2020 and 2019, respectively, for the U.S. Qualified Plan, our principal pension plan. This assumption is based on the plan's target asset allocation. The expected long-term rate of return assumption reflects long-term capital market return forecasts for the asset classes employed, assumed excess returns from active management within each asset class, the portion of plan assets that are actively managed, and periodic rebalancing back to target allocations. Current market factors such as inflation and interest rates are evaluated before the long-term capital market assumptions are determined. In addition, peer data and historical returns are reviewed to check for reasonableness. Although we review our expected long-term rate of return assumption annually, our plan performance in any one particular year does not, by itself, significantly influence our evaluation. Our assumption is generally not revised unless there is a fundamental change in one of the factors upon which it is based, such as the target asset allocation or long-term capital market return forecasts.

We use discount rates to measure the present value of pension plan obligations and postretirement health care obligations at year-end, as well as, to calculate next year's pension income or cost. It is derived by using a yield curve approach which matches projected plan benefit payment streams with bond portfolios reflecting actual liability duration unique to the plans. The rate is adjusted at each remeasurement date, based on the factors noted above. We measure service and interest costs by applying the specific spot rates along that yield curve to the plans' liability cash flows ("Spot Rate Approach"). We believe the approach provides a more precise measurement of service and interest costs by improving the correlation between projected benefit cash flows and their corresponding spot rates on the yield curve.

For the mortality assumption we used PRI 2012 mortality table ("PRI-2012") for our U.S. plans at December 31, 2021 and 2020, together with mortality improvement projection scales MP-2021 and MP-2020, respectively.

Plan Assets (U.S. Qualified Plan and non-U.S. pension plans)

The investment objective for our principal plan, the U.S. Qualified Plan, is to achieve over the investment horizon a long-term total return, which at least matches our expected long-term rate of return assumption while maintaining a prudent level of portfolio risk. We emphasize long-term growth of principal while avoiding excessive risk so as to use plan asset returns to help finance pension obligations, thus improving our plan's funded status. We predominantly invest in assets that can be sold readily and efficiently to ensure our ability to reasonably meet expected cash flow requirements.

We define our primary risk concern to be the plan's funded status volatility and to a lesser extent total plan return volatility. Understanding that risk is present in all types of assets and investment styles, we acknowledge that some risk is necessary to produce long-term investment results that are sufficient to meet the plan's objectives. However, we monitor and ensure that the investment strategies we employ make reasonable efforts to maximize returns while controlling for risk parameters.

Investment risk is also controlled through diversification among multiple asset classes, managers, investment styles and periodic rebalancing toward asset allocation targets. Risk is further controlled at the investment strategy level by requiring underlying managers to follow formal written investment guidelines which enumerate eligible securities, maximum portfolio concentration limits, excess return and tracking error targets as well as other relevant portfolio constraints. Investment results and risk are measured and monitored on an ongoing basis and quarterly investment reviews are conducted.

The plan assets are primarily invested in funds offered and managed by Aon Investment USA, Inc.

Our plan assets are currently invested mainly in funds overseen by our delegated manager using manager of manager funds which are a combination of both active and passive (indexed) investment strategies. The plan's return seeking assets include equity securities that are diversified across U.S. and non-U.S. stocks, including emerging market equities, in order to further reduce risk at the total plan level. Additional diversification in return seeking assets is achieved by using multi-asset credit, private credit, real estate and hedge fund of funds strategies.

A portion of the plan assets are invested in a liability hedging portfolio to reduce funded status volatility and reduce overall risk for the plan. The portfolio uses manager of manager funds that are diversified principally among securities issued or guaranteed by the U.S. government or its agencies, mortgage-backed securities, including collateralized mortgage obligations, corporate debt obligations and dollar-denominated obligations issued in the U.S. by non-U.S. banks and corporations.

We have formally identified the primary objective for each asset class within our plan. U.S. equities are held for their long-term capital appreciation and dividend income, which is expected to exceed the rate of inflation. Non-U.S. equities are held for their long-term capital appreciation, as well as diversification relative to U.S. equities and other asset classes. Multi-asset credit, private credit, real estate and hedge fund of funds further diversifies the return-seeking assets with reduced correlation due to different return expectations and flows. These diversifying asset classes also provide a hedge against unexpected inflation. Liability hedging assets are held to reduce overall plan volatility and as a source of current income. Additionally, they are designed to provide a hedge relative to the interest rate sensitivity of the plan's liabilities. Cash is held only to meet liquidity requirements.

Investment Valuation

Our pension plan assets are measured at fair value in accordance with ASC 820, "Fair Value Measurement and Disclosures." ASC 820 defines fair value and establishes a framework for measuring fair value under current accounting pronouncements. See Note 2 to our consolidated financial statements for further detail on fair value measurement.

The following is a description of the valuation methodologies used for the investments measured at fair value, including the general classification of such investments pursuant to the valuation hierarchy.

A financial instrument's level or categorization within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement.

Aon Collective Trust Investment Funds

Aon Collective Investment Trust ("CIT") Funds are offered under the Aon CITs and their units are valued at the reported Net Asset Value ("NAV"). Some Funds are within Level 1 of the valuation hierarchy as the NAV is determined and published daily and are the basis for current transactions, while other Funds do not publish a daily NAV, therefore, are excluded from the fair value hierarchy.

- Equity funds' investment objectives are to achieve long-term growth of capital by investing diversified portfolio of primarily U.S. and non-U.S. equity securities and approximate as closely as practicable the total return of the S&P 500 and global stock indices.
- Fixed income funds' investment objectives are to seek current income and capital appreciation by investing in a diversified portfolio of domestic and foreign debt securities, government obligations and bond funds with various durations.
- Real estate funds' investment objective is to achieve a return by investing primarily in securities of U.S. and foreign real estate investment trusts, real estate operating companies and other companies that principally engaged in the real estate industry or derive at least 50% of their revenues or earnings owning, operating, developing and /or managing real estate.

Aon Alternative Investment Funds

These investments are valued at the reported NAV; however, these investments do not publish a daily NAV, therefore, are excluded from the fair value hierarchy.

The Aon Private Credit Opportunities Fund is established as a fund-of-funds for investors seeking exposure to a diversified portfolio of private credit investments by allocating to a select pool of United States and European-based private credit funds.

The Aon Liquid Alternatives Fund LTD Class A seeks to generate consistent long-term capital appreciation, it is also concerned with preservation of capital. The Fund diversifies its holdings among a number of Managers that collectively implement a range of alternative investment strategies.

The Aon Opportunistic Alternatives SP Shareholder Summary Class A's investment objective is to generate attractive returns over a full market cycle by investing in a range of alternative investment opportunities with sources of return that have a low correlation to the broader financial markets, while also seeking to preserve capital under the direction of the Investment Manager.

The Aon Opportunistic Credit Portfolio SP is a segregated portfolio of Aon Alternatives Fund SPC, a Cayman Islands exempted company registered as a segregated portfolio company. The Portfolio's investment objective is to seek to generate attractive returns by investing in a range of credit opportunities.

Short-Term Investment Funds ("STIF")

These investments include cash, bank notes, corporate notes, government bills and various short-term debt instruments. The investment objective is to provide safety of principal and daily liquidity by investing in high quality money market instruments. They are valued at the reported NAV and within Level 1 of the valuation hierarchy as the NAV is determined and published daily, and are the basis for current transactions of the units based on the published NAV.

The Venture Capital Fund

The Fund is structured as a conventional, private venture capital firm. The Fund will target investments that are in early-stage technology companies. The Fund expects to invest in seed stage development companies, principally in the software and technology-enabled businesses sector. It is classified as other investments measured at the NAV and is excluded from the fair value hierarchy.

The U.S. Qualified Plan has an additional unfunded commitment of $0.1 million and $0.3 million to the Venture Capital Fund at December 31, 2021 and 2020, respectively, and $17.2 million and $19.9 million to the Aon Private Credit Opportunities Fund and Aon Opportunistic Credit Fund at December 31, 2021 and 2020, respectively.

There were no transfers among the levels of the fair value hierarchy during the years ended December 31, 2021 and 2020.

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

(Tabular dollar amounts, except share data and per share data, in millions)

The following table sets forth by level, within the fair value hierarchy, the plan assets at fair value as of December 31, 2021:

Asset category	Quoted prices in active markets for identical assets (Level I)	Significant other observable inputs (Level II)	Significant unobservable inputs (Level III)	Total
Short-term investment funds	$ 16.7	$ —	$ —	$ 16.7
Aon Collective Investment Trust Funds:				
Equity funds	$ 390.7	$ —	$ —	$ 390.7
Fixed income funds	577.3	—	—	577.3
Real estate funds	0.6	—	—	0.6
Total Aon Collective Investment Trust Funds	$ 968.6	$ —	$ —	$ 968.6
Total	$ 985.3	$ —	$ —	$ 985.3
Other Investments Measured at Net Asset Value				
Aon Collective Investment Trust Funds				$ 159.1
Aon Alternative Investment Funds:				
Fixed income funds				$ 155.1
Venture Capital Fund				5.3
Other Non-U.S. commingled equity and fixed income				391.6
Total other investments measured at net asset value				$ 552.0
Total investments at fair value				$ 1,696.4

(Tabular dollar amounts, except share data and per share data, in millions)

The following table sets forth by level, within the fair value hierarchy, the plan assets at fair value as of December 31, 2020:

Asset category	Quoted prices in active markets for identical assets (Level I)	Significant other observable inputs (Level II)	Significant unobservable inputs (Level III)	Total
Short-term investment funds	$ 21.2	$ —	$ —	$ 21.2
Aon Collective Investment Trust Funds:				
Equity funds	$ 448.5	$ —	$ —	$ 448.5
Fixed income funds	475.3	—	—	475.3
Real estate funds	6.8	—	—	6.8
Total Aon Collective Investment Trust Funds	$ 930.6	$ —	$ —	$ 930.6
Total	$ 951.8	$ —	$ —	$ 951.8
Other Investments Measured at Net Asset Value				
Aon Collective Investment Trust Funds				$ 147.5
Aon Alternative Investment Funds:				
Fixed income funds				$ 137.3
Venture Capital Fund				4.7
Other Non-U.S. commingled equity and fixed income				379.1
Total other investments measured at net asset value				$ 521.1
Total investments at fair value				$ 1,620.4

Allocations

We employ a total return investment approach in which a mix of equity, debt and alternative (e.g., real estate) investments is used to achieve a competitive long-term rate of return on plan assets at a prudent level of risk. Our weighted average plan target asset allocation is 49% return-seeking assets (range of 40% to 60%) and 51% liability-hedging assets (range of 40% to 60%).

The following table sets forth the weighted average asset allocations and target asset allocations by asset category, as of the measurement dates of the plans:

	Asset allocations		Target asset allocations	
	December 31, 2021	December 31, 2020	December 31, 2021	December 31, 2020
Return-seeking assets	52 %	58 %	49 %	56 %
Liability-hedging assets	48 %	42 %	51 %	44 %
Total	100 %	100 %	100 %	100 %

(Tabular dollar amounts, except share data and per share data, in millions)

Contributions and Benefit Payments

We expect to contribute $4.0 million to our non-U.S. pension plans and $0.2 million to our postretirement benefit plan in 2022. We did not make contributions in 2021 and do not expect to make any required contributions to the U.S. Qualified Plan in 2022 for the 2021 plan year based on the minimum funding requirements as defined in the Pension Protection Act of 2006 as amended. Final funding requirements for 2021 will be determined based on our January 2022 funding actuarial valuation.

The following table summarizes expected benefit payments from our pension plans and postretirement plans through 2031. Actual benefit payments may differ from expected benefit payments. These amounts are net of expected plan participant contributions:

	Pension plans	Postretirement benefit plans
2022	$ 96.0	$ 0.2
2023	$ 98.0	$ 0.2
2024	$ 99.7	$ 0.2
2025	$ 100.7	$ 0.1
2026	$ 101.7	$ 0.1
2027 - 2031	$ 514.2	$ 0.4

Health Care Benefits

The following table presents healthcare trend assumptions used to determine the year end benefit obligation:

	2021	2020
Medical (1)	N/A	5.3 %
Prescription drug (1)	N/A	8.5 %

(1) The rates are assumed to decrease to 5.0% in 2026 and remain at that level thereafter.

401(k) Plan

We have a 401(k) Plan covering substantially all U.S. employees that provides for employee salary deferral contribution and employer contributions. Employees may contribute up to 50% of their pay on a pre-tax basis subject to IRS limitations. In addition, employees with age 50 or older are allowed to contribute additional pre-tax “catch-up” contributions. In addition, the Company matches up to 50% of seven percent (7%) of a team member’s eligible compensation, subject to certain 401(k) Plan limitations.

We had expense associated with our 401(k) Plan of $11.1 million, $10.6 million, $9.4 million and $1.2 million for the year ended December 31, 2021 (Successor), the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor), respectively.

(Tabular dollar amounts, except share data and per share data, in millions)

Note 11 -- Stock Based Compensation

The following table sets forth the components of our stock-based compensation and expected tax benefit for the years ended 2021, 2020 and 2019 related to the plans in effect during the respective year:

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019 (1)	Period from January 1 to February 7, 2019 (1)
Stock-based compensation expense:				
Restricted stock and restricted stock units	$ 18.7	$ 3.1	$ —	$ 11.7
Stock options	3.0	23.0	—	—
Incentive units	11.6	19.0	11.7	—
Total compensation expense	$ 33.3	$ 45.1	$ 11.7	$ 11.7
Expected tax benefit:				
Restricted stock and restricted stock units	$ 3.4	$ 0.5	$ —	$ —
Stock options	0.2	5.9	—	—
Total compensation expense	$ 3.6	$ 6.4	$ —	$ —

(1) In connection with the Take-Private Transaction on February 8, 2019, all outstanding stock options and restricted stock units, whether vested or unvested, were cancelled and converted into the right to receive $145 in cash per share, less any applicable exercise price. As a result, an expense of $10.4 million was included in the Predecessor's net earnings for the period from January 1, 2019 to February 7, 2019 in connection with the acceleration of the vesting of the outstanding grants. In addition, we recorded $56.3 million related to incentive units granted to certain investors for the Successor period from January 1 to December 31, 2019. See further discussion below.

2020 Omnibus Incentive Plan

In connection with the IPO completed on July 6, 2020, we adopted the Dun & Bradstreet 2020 Omnibus Incentive Plan (the "Plan"). Under the Plan, we are authorized to issue up to 40,000,000 shares of the Company's common stock in the form of stock-based awards, such as, but not limited to, restricted stock, restricted stock units ("RSUs") and stock options. As of December 31, 2021, a total of 30,645,817 shares of our common stock were available for future grants under the Plan.

(Tabular dollar amounts, except share data and per share data, in millions)

The following table summarizes the restricted stock, restricted stock units and stock options granted during the years ended December 31, 2021 and 2020:

Date	Number of shares granted	Grant date fair value per share	Vesting period (in years)	Vesting criteria
Restricted Stock & RSU's: (1)				
August 12, 2020	75,378	$25.87	1.0	Service
August 12, 2020	220,335	$25.87	2.6	Service
August 12, 2020	205,546	$25.87	1.7	Service
November 6, 2020	184,672	$26.13	3.0	Service
November 9, 2020	9,568	$25.88	3.0	Service
December 1, 2020	7,400	$27.03	3.0	Service
February 11, 2021	65,790	$22.80	2.4	Service
March 10, 2021	67,021	$22.01	1.0	Service
March 10, 2021 (2)	2,203,390	$22.01	3.0	Service & Performance
March 31, 2021	13,440	$23.81	3.0	Service
June 30, 2021	329,904	$21.37	3.0	Service
August 4, 2021	6,607	$18.92	1.0	Service
September 30, 2021 (2)	224,886	$16.81	3.0	Service & Performance
September 30, 2021	116,004	$16.81	3.0	Service
December 31, 2021	26,843	$20.49	2.9	Service
Stock Options:				
June 30, 2020 (3)	4,160,000	$4.80	0.0	N/A
June 30, 2020 (4)	3,840,000	$5.19	3.0	Service

(1) Employee awards generally vest ratably over three years and director awards vest 100% after one year.

(2) These awards are also subject to an annual performance target. Vesting of these awards are dependent on the satisfaction of the annual performance target.

(3) Awards were granted in connection with the IPO and fully vested at time of grant. See Note 19, "Related Parties" for further discussion.

(4) Awards vest ratably over three years in annual installments, commencing on the first anniversary of the grant date.

The following tables summarize the restricted stock, restricted stock units and stock options activity for the years ended December 31, 2021 and 2020:

	Restricted stock & restricted stock units			
	Number of shares	**Weighted-average grant date fair value**	**Weighted average remaining contractual term (in years)**	**Aggregate intrinsic value (in millions)**
Balances, January 1, 2020	—	$—		
Granted (1)	702,899	$25.95		
Forfeited	—	$—		
Vested	—	$—		
Balances, December 31, 2020	702,899	$25.95	1.3	$17.5
Granted	3,053,885	$21.37		
Forfeited	(681,615)	$23.03		
Vested	(317,330)	$25.77		
Balances, December 31, 2021	2,757,839	$21.61	1.2	$56.5

(1) Included the conversion of 205,546 phantom units into restricted stock units

	Stock options			
	Number of options	**Weighted-average exercise price**	**Weighted average remaining contractual term (in years)**	**Aggregate intrinsic value (in millions)**
Balances, January 1, 2020	—	$—		
Granted	8,000,000	$22.00		
Forfeited	(350,000)	$22.00		
Vested	—	$—		
Balances, December 31, 2020	7,650,000	$22.00	6.5	$22.2
Granted	—	$0.00		
Forfeited	(1,270,000)	$22.00		
Vested	—	$—		
Balances, December 31, 2021	6,380,000	$22.00	5.5	$—
Expected to vest as of December 31, 2021	1,480,004	$22.00	5.5	$—
Exercisable as of December 31, 2021	4,899,996	$22.00	5.5	$—

As of December 31, 2021, total unrecognized compensation cost related to non-vested restricted stock and RSUs were $43.8 million, which are expected to be recognized over a weighted average period of 2.2 years. As of December 31, 2021, total unrecognized compensation cost related to stock options was $5.7 million, which was expected to be recognized over a weighted average period of 1.5 years.

We accounted for stock-based compensation based on grant date fair value. For restricted stock, grant date fair value was based on the closing price of our stock on the date of grant. For stock options, we estimated the grant date fair value using the Black-Scholes valuation model. The assumptions for the Black-Scholes valuation model related to stock options granted during the year ended December 31, 2020 are set forth in the following table:

(Tabular dollar amounts, except share data and per share data, in millions)

Weighted average assumptions	
Expected stock price volatility	28 %
Expected dividend yield	0.0 %
Expected life of option (in years)	3.98
Risk-free interest rate	0.23 %
Black Scholes value	$4.99
Exercise price	$22.00

Expected stock price volatility was derived from the historical volatility of companies in our peer group. The risk-free interest rate assumption corresponds to the time to liquidity assumption and is based on the U.S. Treasury yield curve in effect at the time.

Employee Stock Purchase Plan ("ESPP")

Effective December 2020, we adopted the Dun & Bradstreet Holdings, Inc. ESPP that allows eligible employees to voluntarily make after-tax contributions ranging from 3% to 15% of eligible earnings. The Company contributes varying matching amounts to employees, as specified in the plan document, after a one year holding period. During the holding period, ESPP purchased shares are not eligible for sale or broker transfer. We recorded the associated expense of approximately $4 million for the year ended December 31, 2021.

Incentive Units Program

Subsequent to the closing of the Take-Private Transaction, Star Parent, L.P.'s long-term incentive plans were authorized to issue up to 19,629.25 Class C incentive units ("profits interest") or phantom units to eligible key employees, directors and consultants of The Dun & Bradstreet Corporation. At December 31, 2019, 18,443.42 incentive units and 249.10 phantom units were issued and outstanding. These units vest ratably over a three-year period and once vested they are not subject to expiration. The terms of these units provided the opportunity for the grantees to participate in the future value of Dun & Bradstreet in excess of its grant date fair value, but only to the extent that the required payments to the other classes of units had been met. We account for these units in accordance with ASC 718, "Compensation—Stock Compensation" and ASU No. 2018-07. Compensation expense is recognized ratably over the three-year vesting period.

In addition, the Company issued 6,817.74 Class B units and 15,867.81 Class C units to certain investors, which vested immediately. We recognized an expense of $56.3 million related to these incentive units during the period from January 1, 2019 to December 31, 2019.

The following table sets forth the profits interest units granted subsequent to the Take-Private Transaction during the 2019 Successor period:

Units granted during quarter ended	Number of units granted	Weighted average exercise price	Weighted average fair value of underlying share	Weighted average fair value per unit
March 31, 2019	32,987.01	$10,329.70	$10,000.00	$2,449.59
June 30, 2019	1,726.51	$10,329.70	$10,000.00	$2,366.59
September 30, 2019	74.73	$10,329.70	$10,000.00	$2,198.20
December 31, 2019	198.05	$10,329.70	$10,000.00	$2,140.61
Total	34,986.30			$2,443.21

The fair value of the underlying shares was determined contemporaneously with the grants.

We determined that the incentive units are equity-classified awards and the compensation expense for these units was calculated by estimating the fair value of each unit at the date of grant. The fair value of each incentive unit was calculated on the date of grant using the Black-Scholes option valuation model. The Company's stock was not publicly traded when these units were granted. We did not have a history of market prices for the common stock. Thus, estimating grant date fair value required us to make assumptions including stock price, expected time to liquidity, expected volatility and discount for lack of marketability, etc. The weighted average assumptions used to estimate fair value for grants made under the Successor equity-based award program are summarized as follows:

	Class B units	Class C units
Expected stock price volatility	43.9 %	43.9 %
Risk-free interest rate	2.43 %	2.40 %
Time to liquidity (in years)	3.5	3.4
Expected dividend yield	—	—
Fair value of units	$3,480	$3,332
Discount for lack of marketability	27 %	28 %
Adjusted fair value of units	$2,540	$2,443

We had determined that the phantom units were liability-classified awards and the initial compensation expense was calculated based on the same grant date fair value applied to the incentive units. We reassessed the fair value of the phantom units and adjusted expense accordingly. The amount associated with these phantom grants was immaterial at December 31, 2019.

In connection with the IPO in July 2020, we converted the 18,245.79 outstanding profits interests of Star Parent, L.P. into 15,055,564 common units of Star Parent, L.P. In addition, we also converted the 15,867.81 vested profits interests held by certain investors into 13,093,367 shares of common stock of Dun & Bradstreet Holdings, Inc. The common units retain the original time-based vesting schedule and are subject to the same forfeiture terms. The fair value of the common units was not greater than the fair value of the Star Parent, L.P. profits interests immediately prior to the conversion; therefore, no additional compensation expense was recognized. We accelerated the vesting of 1,342,909 common units, held by one of our directors, incurring an acceleration charge of $3.4 million during the year ended December 31, 2020. During 2021 Star Parent L.P. was liquidated. As part of the liquidation, each vested common unit was exchanged for a share of common stock of the Company and distributed to the grantees and each unvested common unit was exchanged for a restricted share of common stock. These restricted shares retain the original time-based vesting schedule and are subject to the same forfeiture terms. The following table summarizes the activities for common units and restricted shares for the years ended December 31, 2021 and 2020.

	Number of common units/ restricted shares	**Weighted-average grant date fair value**	**Weighted average remaining contractual term (in years)**	**Aggregate intrinsic value (in millions)**
Outstanding, June 30, 2020	15,055,564	$2.95	1.7	$331.2
Distribution	—	$0.00		
Forfeited	(260,357)	$2.90		
Outstanding, December 31, 2020	14,795,207	$2.95	1.5	$368.4
Distribution	(10,635,652)	$2.95		
Forfeited	(332,986)	$2.89		
Outstanding, December 31, 2021	3,826,569	$2.95	0.24	$78.4
Expected to vest, December 31, 2021	3,826,569	$2.95	0.24	$78.4

As of December 31, 2021, total unrecognized compensation cost related to non-vested restricted shares was $2.4 million, which is expected to be recognized over a weighted average period of 0.24 year.

Predecessor Programs

Under our Predecessor's stock incentive plans certain employees and non-employee directors received stock-based awards, such as, but not limited to, restricted stock units, restricted stock and stock options.

Restricted Stock Units

Our Predecessor's restricted stock unit programs included both performance-based awards and service-based awards. The performance-based awards had either a market condition or a performance condition. All awards generally contained a service-based condition. The compensation expense for our performance-based awards was recognized on a graded-vesting basis over the requisite service period. The expense for the performance-based awards with market conditions was recognized regardless of whether the market condition was satisfied, provided that the requisite service had been met. The expense for the performance-based awards with performance conditions was initially recognized assuming that the target level of performance would be achieved. Each reporting period we assessed the probability of achieving the performance targets and if necessary adjusted the compensation expense based on this assessment. Final compensation expense recognized would ultimately depend on the actual number of shares earned against the performance condition as well as fulfillment of the requisite service condition. The expense for the awards earned based solely on the fulfillment of the service-based condition was recognized on a straight-line basis over the requisite service periods.

We calculated the grant date fair value using a Monte Carlo simulation model for awards with a market condition, Monte Carlo simulation model requires assumptions including expected stock price volatility, expected dividend yield, expected term and risk-free interest rate. Generally expected stock price volatility was based on historical volatility or a blend of historical volatility and, when available, implied volatility. The expected dividend yield assumption was determined by dividing our most recent quarterly dividend payment by the average of the stock price from the three months preceding the grant date. The result was then annualized and compounded. Expected term was based on the period from the date of grant through the end of the performance evaluation period. The risk-free interest rate was based on the U.S. Treasury yield curve in effect at the time of grant.

In connection with the Take-Private Transaction on February 8, 2019, all outstanding unvested performance-based restricted stock units, were cancelled and converted into the right to receive $145 in cash per share, Total unrecognized compensation expense related to nonvested performance-based restricted stock units at February 7, 2019 was $5.7 million. This expense was accelerated and recognized at the time of the Take-Private Transaction.

Service-based Restricted Stock Units

Prior to 2019, the Company issued grants of restricted stock units to certain employees. These grants generally vested over a three to five-year period on a graded vesting basis. In addition, our non-employee directors received grants of restricted stock units as part of their annual equity retainer. These grants normally vested about one year from date of grant.

For the service-based restricted stock units, the fair value was calculated by using the average of the high and low prices of our common stock on the date of grant.

In connection with the Take-Private Transaction on February 7, 2019, total unrecognized compensation expense related to nonvested service-based restricted stock units was $4.7 million. This expense was accelerated and recognized at the time of the Take-Private Transaction.

Note 12 -- Earnings (Loss) Per Share

Basic earnings (loss) per share is computed by dividing net income (loss) for the period by the weighted-average number of common shares outstanding during the period.

In periods when we report net income, diluted earnings per share is calculated by dividing net income by the weighted average number of common shares outstanding during the period plus the dilutive effect of our outstanding stock incentive awards. For periods when we report a net loss, diluted earnings per share is equal to basic earnings per share, as the impact of our outstanding stock incentive awards is considered to be antidilutive.

(Tabular dollar amounts, except share data and per share data, in millions)

The following table sets forth the computation of basic and diluted earnings (loss) per share:

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)
Weighted average number of shares outstanding-basic	428.7	367.1	314.5	37.2
Weighted average number of shares outstanding-diluted	428.7	367.1	314.5	37.2
Earnings (loss) per share of common stock:				
Basic	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)
Diluted	$ (0.17)	$ (0.49)	$ (2.14)	$ (2.04)

The weighted average number of shares outstanding used in the computation of diluted earnings per share excludes the effect of potentially issuable common shares totaling 1,092,148 shares and 179,870 shares for the years ended December 31, 2021 and 2020, respectively, and 1,548 shares for the period from January 1 to February 7, 2019 (Predecessor). These potentially issuable common shares were not included in the calculation of diluted earnings per share because their effect would be anti-dilutive.

Below is a reconciliation of our common stock issued and outstanding:

Common shares issued and outstanding as of December 31, 2019	314,494,968
Shares issued in connection with IPO and private placement	108,506,312
Issuance of restricted stock awards	416,851
Shares forfeited	—
Common shares issued as of December 31, 2020	423,418,131
Less: treasury shares	465,903
Common shares outstanding as of December 31, 2020	422,952,228
Common shares issued as of December 31, 2020	423,418,131
Shares issued	9,177,810
Shares forfeited	(524,942)
Common shares issued as of December 31, 2021	432,070,999
Less: treasury shares	873,217
Common shares outstanding as of December 31, 2021	431,197,782

Note 13 -- Financial Instruments

We employ established policies and procedures to manage our exposure to changes in interest rates and foreign currencies. We use foreign exchange forward and option contracts to hedge certain short-term foreign currency denominated loans and third-party and intercompany transactions. We may also use foreign exchange forward contracts to hedge our net investments in our foreign subsidiaries. In addition, we may use interest rate derivatives to hedge a portion of the interest rate exposure on our outstanding debt or in anticipation of a future debt issuance, as discussed under "Interest Rate Risk Management" below.

We do not use derivative financial instruments for trading or speculative purposes. If a hedging instrument is not designated as a hedge or ceases to qualify as a hedge in accordance with hedge accounting guidelines, any subsequent gains and losses are recognized currently in income. Collateral is generally not required for these types of instruments.

By their nature, all such instruments involve risk, including the credit risk of non-performance by counterparties. However, at December 31, 2021 and 2020, there was no significant risk of loss in the event of non-performance of the counterparties to these financial instruments. We control our exposure to credit risk through monitoring procedures and by selection of reputable counterparties.

Our trade receivables do not represent a significant concentration of credit risk at December 31, 2021 and 2020, because we sell to a large number of clients in different geographical locations and industries.

Interest Rate Risk Management

Our objective in managing our exposure to interest rates is to limit the impact of interest rate changes on our earnings, cash flows and financial position, and to lower our overall borrowing costs. To achieve these objectives, we maintain a practice that floating-rate debt be managed within a minimum and maximum range of our total debt exposure. To manage our exposure and limit volatility, we may use fixed-rate debt, floating-rate debt and/or interest rate swaps. We recognize all derivative instruments as either assets or liabilities at fair value in the consolidated balance sheet.

We use interest rate swaps to manage the impact of interest rate changes on our earnings. Under the swap agreements, we make monthly payments based on the fixed interest rate and receive monthly payments based on the floating rate. The objective of the swaps is to mitigate the variation of future cash flows from changes in the floating interest rates on our existing debt. The swaps are designated and accounted for as cash flow hedges. Changes in the fair value of the hedging instruments are recorded in other comprehensive income (loss) and reclassified to earnings in the same line item associated with the hedged item when the hedged item impacts earnings.

The notional amount of the interest rate swap designated as a cash flow hedging instrument was $1 billion and $129 million at December 31, 2021 and 2020, respectively.

On March 30, 2021, the Company entered into three-year interest rate swaps with an aggregate notional amount of $1 billion, effective March 29, 2021 through March 27, 2024. For these swaps, the Company pays a fixed rate of 0.467% and receives the one-month LIBOR rate. The interest rate swaps, with an aggregate notional amount of $129 million, under the April 20, 2018 agreement expired on April 27, 2021.

Foreign Exchange Risk Management

Our objective in managing exposure to foreign currency fluctuations is to reduce the volatility caused by foreign exchange rate changes on the earnings, cash flows and financial position of our international operations. From time to time, we follow a practice of hedging certain balance sheet positions denominated in currencies other than the functional currency applicable to each of our various subsidiaries. In addition, we are subject to foreign exchange risk associated with our international earnings and net investments in our foreign subsidiaries. We may use short-term, foreign exchange forward and, from time to time, option contracts to execute our hedging strategies. Typically, these contracts have maturities of 12 months or less. These contracts are denominated primarily in the British pound sterling, the Euro, the Swedish Krona, and the Norwegian Krone. The gains and losses on the forward contracts associated with our balance sheet positions are recorded in "Other income (expense) – net" in the consolidated statements of operations and comprehensive income (loss) and are essentially offset by the losses and gains on the underlying foreign currency transactions. Our foreign exchange forward contracts are not designated as hedging instruments under authoritative guidance.

To decrease earnings volatility, we currently hedge substantially all our intercompany balance positions denominated in a currency other than the functional currency applicable to each of our various subsidiaries with short-term, foreign exchange forward contracts. In the prior year, certain balance sheet positions were not being hedged in order to reduce the volatility of cash flows required to settle these forward contracts. However, starting in the third quarter of 2020, we resumed our practice of hedging substantially all our intercompany balance positions. The underlying transactions and the corresponding foreign exchange forward contracts are marked to market at the end of each quarter and the fair value impacts are reflected within "Non-operating income (expense) – net" in the consolidated financial statements. In addition, in connection with the acquisition of Bisnode, we entered into a zero-cost foreign currency collar in October 2020, with a notional amount of SEK 4.8 billion to reduce our foreign currency exposure. Unrealized gain associated with the instrument was $23.5 million at December 31, 2020. We settled the collar on January 8, 2021 with a total realized gain of $21.0 million upon the close of the Bisnode transaction, resulting in a loss of $2.5 million for the year ended December 31, 2021.

As of December 31, 2021 and December 31, 2020, the notional amounts of our foreign exchange contracts were $448.5 million and $212.9 million, respectively. Realized gains and losses associated with these contracts were $11.4 million and $10.1 million, respectively, for the year ended December 31, 2021; $17.4 million and $9.7 million, respectively, for the year ended December 31, 2020; and $18.2 million and $27.6 million, respectively, for the period from January 1 to December 31, 2019. Unrealized gains and losses associated with these contracts were $1.9 million and $0.7 million, respectively, at December 31, 2021; $2.0 million and $0.9 million, respectively, at December 31, 2020; and $0.3 million and $0.5 million, respectively, at December 31, 2019.

(Tabular dollar amounts, except share data and per share data, in millions)

Fair Values of Derivative Instruments in the Consolidated Balance Sheets

	Asset derivatives				Liability derivatives			
	December 31, 2021		December 31, 2020		December 31, 2021		December 31, 2020	
	Balance sheet location	Fair value	Balance sheet location	Fair value	Balance sheet location	Fair value	Balance sheet location	Fair value
Derivatives designated as hedging instruments								
Interest rate contracts	Other current assets	$ 10.1	Other current assets	$ —	Other accrued & current liabilities	$ —	Other accrued & current liabilities	$ 1.0
Total derivatives designated as hedging instruments		$ 10.1		$ —		$ —		$ 1.0
Derivatives not designated as hedging instruments								
Foreign exchange collar	Other current assets	$ —	Other current assets	$ 23.5		$ —		$ —
Foreign exchange forward contracts	Other current assets	1.9	Other current assets	2.0	Other accrued & current liabilities	0.7	Other accrued & current liabilities	0.9
Total derivatives not designated as hedging instruments		$ 1.9		$ 25.5		$ 0.7		$ 0.9
Total derivatives		$ 12.0		$ 25.5		$ 0.7		$ 1.9

The Effect of Derivative Instruments on the Consolidated Statement of Operations and Comprehensive Income (Loss)

	Amount of pre-tax gain or (loss) recognized in OCI on derivative			
	Successor			Predecessor
Derivatives in cash flow hedging relationships	**Year ended December 31, 2021**	**Year ended December 31, 2020**	**Period from January 1 to December 31, 2019**	**Period from January 1 to February 7, 2019**
Interest contracts	$ 11.1	$ 0.9	$ (1.6)	$ —

	Amount of gain or (loss) reclassified from accumulated OCI into income			
	Successor			Predecessor
Location of gain or (loss) reclassified from accumulated OCI into income	**Year ended December 31, 2021**	**Year ended December 31, 2020**	**Period from January 1 to December 31, 2019**	**Period from January 1 to February 7, 2019**
Interest expense	$ (3.4)	$ (2.8)	$ (0.7)	$ —

(Tabular dollar amounts, except share data and per share data, in millions)

Amounts expected to be reclassified into earnings, net over the next 12 months is less than $0.1 million.

Location of gain or (loss) recognized in income on derivative	Amount of gain or (loss) recognized in income on derivative — Successor: Year ended December 31, 2021	Successor: Year ended December 31, 2020	Successor: Period from January 1 to December 31, 2019	Predecessor: Period from January 1 to February 7, 2019
Interest expense	$ (3.4)	$ (2.8)	$ (0.7)	$ —

Derivatives not designated as hedging instruments	Location of gain or (loss) recognized in income on derivatives	Amount of gain (loss) recognized in income on derivatives — Successor: Year ended December 31, 2021	Successor: Year ended December 31, 2020	Successor: Period from January 1 to December 31, 2019	Predecessor: Period from January 1 to February 7, 2019
Make-whole derivative liability	Non-operating income (expenses) – net	$ —	$ (32.8)	$ (172.4)	$ —
Foreign exchange collar	Non-operating income (expenses) – net	$ (2.5)	$ 23.5	$ —	$ —
Foreign exchange forward contracts	Non-operating income (expenses) – net	$ 1.4	$ 9.0	$ (12.0)	$ 1.8

Fair Value of Financial Instruments

Our financial assets and liabilities that are reflected in the consolidated financial statements include derivative financial instruments, cash and cash equivalents, accounts receivable, other receivables, accounts payable, short-term borrowings and long-term borrowings.

The following table summarizes fair value measurements by level at December 31, 2021 for assets and liabilities measured at fair value on a recurring basis:

	Quoted prices in active markets for identical assets (Level I)	Significant other observable inputs (Level II)	Significant unobservable inputs (Level III)	Balance at December 31, 2021
Assets:				
Cash equivalents (1)	$ 1.7	$ —	$ —	$ 1.7
Other current assets:				
Foreign exchange forwards (2)	$ —	$ 1.9	$ —	$ 1.9
Swap arrangements (4)	$ —	$ 10.1	$ —	$ 10.1
Liabilities:				
Other accrued and current liabilities:				
Foreign exchange forwards (2)	$ —	$ 0.7	$ —	$ 0.7

(Tabular dollar amounts, except share data and per share data, in millions)

The following table summarizes fair value measurements by level at December 31, 2020 for assets and liabilities measured at fair value on a recurring basis:

	Quoted prices in active markets for identical assets (Level I)	Significant other observable inputs (Level II)	Significant unobservable inputs (Level III)	Balance at December 31, 2020
Assets:				
Cash equivalents (1)	$ 212.3	$ —	$ —	$ 212.3
Other current assets:				
Foreign exchange forwards (2)	$ —	$ 2.0	$ —	$ 2.0
Foreign exchange collar (3)	$ —	$ 23.5	$ —	$ 23.5
Other accrued and current liabilities:				
Foreign exchange forwards (2)	$ —	$ 0.9	$ —	$ 0.9
Swap arrangements (4)	$ —	$ 1.0	$ —	$ 1.0

(1) The carrying value of cash equivalents represents fair value as they consist of highly liquid investments with an initial term from the date of purchase by the Company to maturity of three months or less.
(2) Primarily represents foreign currency forward contracts. Fair value is determined based on observable market data and considers a factor for nonperformance in the valuation.
(3) Represents foreign currency collar entered in October 2020 in connection with the acquisition of Bisnode, which was settled on January 8, 2021 with a total gain of $21.0 million. Fair value is determined based on observable market data.
(4) Represents interest rate swap agreements. Fair value is determined based on observable market data.

There were no transfers between Levels I and II or transfers in or transfers out of Level III in the fair value hierarchy for the year ended December 31, 2021 and the year ended December 31, 2020.

At December 31, 2021 and December 31, 2020, the fair value of cash and cash equivalents, accounts receivable, other receivables and accounts payable approximated carrying value are due to the short-term nature of these instruments. The estimated fair values of other financial instruments subject to fair value disclosures, determined based on valuation models using discounted cash flow methodologies with market data inputs from globally recognized data providers and third-party quotes from major financial institutions (categorized as Level II in the fair value hierarchy), are as follows:

	Balance at			
	December 31, 2021		December 31, 2020	
	Carrying amount	Fair value	Carrying amount	Fair value
Long-term debt (1)	$ 866.4	$ 924.5	$ 847.2	$ 1,056.1
Revolving facility	$ 160.0	$ 162.7	$ —	$ —
Term loan facility (2)	$ 2,718.4	$ 2,840.7	$ 2,433.9	$ 2,476.2

(1) Includes the 5.000% Senior Unsecured Notes and the 6.875% Senior Secured Notes at December 31, 2021 and the 6.875% Senior Secured Notes and the 10.250% Unsecured Notes at December 31, 2020.

(2) Includes short-term and long-term portions of the Term Loan Facility.

Items Measured at Fair Value on a Nonrecurring Basis

In addition to assets and liabilities that are recorded at fair value on a recurring basis, we record assets and liabilities at fair value on a nonrecurring basis as required by GAAP. Generally, assets are recorded at fair value on a nonrecurring basis as a result of impairment charges and for acquisition accounting in accordance with the guidance in ASC 805 "Business Combinations."

(Tabular dollar amounts, except share data and per share data, in millions)

Note 14 -- Accumulated Other Comprehensive Income (Loss)

The following table summarizes the changes in the accumulated balances for each component of accumulated other comprehensive income (loss) ("AOCI"):

	Foreign currency translation adjustments	Defined benefit pension plans	Derivative financial instruments	Total
Balance, January 1, 2020	$ 0.9	$ (24.0)	$ (1.1)	$ (24.2)
Other comprehensive income (loss) before reclassifications	25.3	(96.0)	(1.4)	(72.1)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax	—	(0.3)	2.1	1.8
Balance, December 31, 2020	$ 26.2	$ (120.3)	$ (0.4)	$ (94.5)
Other comprehensive income (loss) before reclassifications	(78.8)	107.0	4.9	33.1
Amounts reclassified from accumulated other comprehensive income (loss), net of tax	—	1.4	2.9	4.3
Balance, December 31, 2021	$ (52.6)	$ (11.9)	$ 7.4	$ (57.1)

The following table summarizes the reclassifications out of AOCI:

		Amount reclassified from accumulated other comprehensive income (loss)			
		Successor			Predecessor
Details about accumulated other comprehensive income (loss) components	**Affected line item in the statement where net income (loss) is presented**	**Year ended December 31, 2021**	**Year ended December 31, 2020**	**Period from January 1 to December 31, 2019**	**Period from January 1 to February 7, 2019**
Defined benefit pension plans:					
Amortization of prior service costs	Other income (expense)- net	$ (0.4)	$ (0.4)	$ —	$ (0.1)
Amortization of actuarial gain/loss	Other income (expense)- net	2.3	—	—	3.9
Derivative financial instruments:					
Interest contracts	Interest expense	3.9	2.8	0.7	—
Total before tax		5.8	2.4	0.7	3.8
Tax benefit (expense)		(1.5)	(0.6)	(0.2)	(1.0)
Total reclassifications for the period, net of tax		$ 4.3	$ 1.8	$ 0.5	$ 2.8

Note 15 -- Take-Private Transaction

On August 8, 2018, Dun & Bradstreet entered into an Agreement and Plan of Merger (the "Merger Agreement") with Parent and Merger Sub. On February 8, 2019, pursuant to the terms of the Merger Agreement, Merger Sub merged with and into Dun & Bradstreet with Dun & Bradstreet continuing as the surviving corporation. Investors of Merger Sub believe that Dun & Bradstreet's strong market position and financial performance can be further reinforced by executing additional growth initiatives and implementing cost saving initiatives.

The Take-Private Transaction was funded through $3,076.8 million of cash from the issuance of common and preferred shares, as well as $4,043.0 million borrowings from notes issuance and Credit Facilities (see Note 6 for further discussion). The net proceeds were used to (i) finance the consummation of the Take-Private Transaction, (ii) repay in full all outstanding indebtedness under Dun & Bradstreet's then-existing credit facilities, (iii) fund the redemption of all Dun & Bradstreet's then-existing senior notes and (iv) pay related fees, costs, premiums and expenses in connection with these transactions.

Upon the close of the Take-Private Transaction, each share of common stock of Dun & Bradstreet, formerly publicly-traded under the symbol of "DNB", was cancelled and converted into the right to receive $145.00 in cash, without interest and subject to any applicable withholding taxes. In addition, each then-outstanding stock option and restricted stock units of Dun & Bradstreet, whether vested or unvested, was cancelled and converted into the right to receive $145.00 in cash, less applicable exercise price, without interest.

On February 8, 2019, as required by the related change in control provision in the following agreements, the Company repaid in full the outstanding borrowings under the then-existing Revolving Five-Year Credit Agreement and the Term Loan Credit Agreement, both dated as of June 19, 2018. In addition, on February 8, 2019, notices of full redemption with respect to the Company's (i) then-existing 4.00% Senior Notes due 2020, in an aggregate principal amount of $300 million, and (ii) then-existing 4.37% Senior Notes due 2022 (together the "Existing Notes"), in an aggregate principal amount of $300 million, were delivered to the respective holders thereof, notifying those holders of the redemption of the entire outstanding aggregate principal amount of each series of Existing Notes on March 10, 2019.

The merger was accounted for in accordance with ASC 805, and the Company was determined to be the accounting acquiror.

The Take-Private Transaction was valued at $6,068.7 million of which $5,431.2 million was paid to acquire Dun & Bradstreet's common stock, including stock options and restricted stock units, based on $145.00 per share and $637.5 million was paid to extinguish the then-existing debt on and following the Take-Private Transaction closing date. Assets and liabilities were recorded at the estimated fair value at the Take-Private Transaction closing date.

Transaction costs incurred by the Predecessor of $52.0 million were included in selling and administrative expenses of Predecessor's results of operations for the period from January 1, 2019 to February 7, 2019. Transaction costs of $147.4 million incurred by Merger Sub were included in selling and administrative expenses of Successor's results of operations for the period from January 1, 2019 to March 31, 2019. Successor's accumulated deficit as of December 31, 2018 includes approximately $13 million related to Merger Sub's transaction costs incurred in 2018.

(Tabular dollar amounts, except share data and per share data, in millions)

The table below reflects the purchase price related to the acquisition and the resulting purchase allocation:

	Weighted average amortization period (years)	Initial purchase price allocation	Measurement period adjustments	Final Purchase price allocation at December 31, 2019
Cash		$ 117.7	$ —	$ 117.7
Accounts receivable		267.8	(1.7)	266.1
Other current assets		46.8	(0.4)	46.4
Total current assets		432.3	(2.1)	430.2
Intangible assets:				
Customer relationships	16.9	2,589.0	(200.5)	2,388.5
Partnership agreements	14.3	—	230.3	230.3
Computer software	7.8	376.0	—	376.0
Database	17	1,769.0	(47.0)	1,722.0
Trademark	Indefinite	1,200.8	75.0	1,275.8
Goodwill		2,797.6	(10.0)	2,787.6
Property, plant & equipment		30.3	—	30.3
Right of use asset		103.9	7.4	111.3
Other		34.4	(0.1)	34.3
Total assets acquired		$ 9,333.3	$ 53.0	$ 9,386.3
Accounts payable		$ 74.2	$ —	$ 74.2
Deferred revenue		398.4	(0.6)	397.8
Accrued liabilities		240.1	(2.3)	237.8
Short-term pension and other accrued benefits		106.0	—	106.0
Other current liabilities		41.1	4.7	45.8
Total current liabilities		859.8	1.8	861.6
Long-term pension and postretirement obligations		213.6	7.4	221.0
Deferred tax liability		1,388.3	(7.7)	1,380.6
Long-term debt		625.1	—	625.1
Other liabilities		161.0	8.0	169.0
Total liabilities assumed		3,247.8	9.5	3,257.3
Non-controlling interest		16.8	43.5	60.3
Less: debt repayment		637.5	—	637.5
Amounts paid to equity holders		$ 5,431.2	$ —	$ 5,431.2

The fair value of the customer relationships and partnership agreements intangible assets were determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The computer software intangible asset represents our data supply and service platform to deliver customer services and solutions. The fair value of this intangible asset was determined by the cost replacement approach.

(Tabular dollar amounts, except share data and per share data, in millions)

Trademark intangible asset represents our Dun & Bradstreet brand. Database represents our global proprietary market leading database. We applied the income approach to value trademark and database intangible assets, specifically, a relief from royalty method. The valuation was based on the present value of the net earnings attributable to the measured asset.

The fair value of the deferred revenue was determined based on estimated direct costs to fulfill the related obligations, plus a reasonable profit margin based on selected peer companies' margins as a benchmark.

The fair values of the acquired assets and liabilities were subject to change within the one-year measurement period. We obtained information to determine the fair values of the net assets acquired at the acquisition date during the measurement period. Since the initial valuation reflected in our financial results as of March 31, 2019, we allocated goodwill and intangible assets between our North America and International segments, as well as among reporting units based on their respective projected cash flows. In addition, we recorded adjustments to the deferred tax liability reflecting the allocation of intangible assets between segments. The above measurement period adjustments to the preliminary valuation of assets and liabilities resulted in a net reduction of goodwill of $10.0 million during 2019. We completed the purchase accounting process as of December 31, 2019.

The value of the goodwill is primarily related to the expected cost savings and growth opportunity associated with product development. The intangible assets, with useful lives from 8 to 17 years, are being amortized over a weighted-average useful life of 16.5 years. The customer relationship and database intangible assets are amortized using an accelerating method. Computer software and partnership agreements intangible assets are amortized using a straight-line method. The amortization methods reflect the timing of the benefits derived from each of the intangible assets.

The goodwill acquired was not deductible for tax purposes.

Unaudited Pro Forma Financial Information

The following pro forma statement of operations data presents the combined results of the Company and its acquisition of Dun & Bradstreet, assuming the acquisition completed on February 8, 2019 had occurred on January 1, 2018.

	2019	2018
Reported revenue (Successor)	$ 1,413.9	$ —
Dun & Bradstreet pre-acquisition revenue	178.7	1,716.4
Deferred revenue fair value adjustment	134.3	(152.2)
Pro forma revenue	$ 1,726.9	$ 1,564.2
Reported net income (loss) attributable to Dun & Bradstreet Holdings, Inc.(Successor)	$ (674.0)	$ —
Dun & Bradstreet pre-acquisition net income (loss)	(75.6)	288.1
Pro forma adjustments - net of income tax (1):		
Deferred revenue fair value adjustment	104.4	(118.3)
Incremental amortization of intangibles	(15.5)	(350.7)
Amortization of deferred commissions	(2.0)	16.9
Transaction costs	154.9	(114.5)
Pension expense adjustment	69.5	38.9
Equity-based compensation adjustment	8.1	—
Preferred dividend adjustment	(21.8)	(128.7)
Incremental interest expense and facility cost adjustment	(21.9)	(215.4)
Pro forma net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor)	$ (473.9)	$ (583.7)

(1) The blended statutory tax rate of 22.3% was assumed for 2019 and 2018 for the purpose of pro forma presentation.

(Tabular dollar amounts, except share data and per share data, in millions)

Note 16 -- Acquisitions

2021 Acquisitions

Eyeota Holdings Pte Ltd ("Eyeota")

On November 5, 2021, we acquired 100% of the outstanding ownership interests in Eyeota, a global online and offline data onboarding and transformation company, for a purchase price of $172.3 million in cash, subject to net working capital adjustment. The acquisition was funded by borrowing from our revolving facility.

The acquisition was accounted for in accordance with ASC 805, as a purchase transaction, and accordingly, the assets and liabilities of the entity were recorded at their estimated fair values at the date of the acquisition. We have included the financial results of Eyeota in our consolidated financial statements since the acquisition date. Transaction costs of $3.0 million were included in selling and administrative expenses for the year ended December 31, 2021. We allocated goodwill and intangible assets to our North America segment.

The table below reflects the aggregate purchase price related to the acquisition and the resulting purchase allocation:

	Amortization life (years)	Initial purchase price allocation
Cash		$ 7.1
Accounts receivable		9.3
Other		0.5
Total current assets		16.9
Intangible assets:		
Customer relationships	14	20.0
Technology	5	14.0
Trademark	2	1.0
Goodwill	Indefinite	138.3
Total assets acquired		$ 190.2
Deferred tax liability		5.9
Other liabilities		12.0
Total liabilities assumed		17.9
Total purchase price		$ 172.3

The fair value of the customer relationships intangible asset was determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The technology intangible asset represents Eyeota's data supply and service platform to deliver customer services and solutions. We applied the income approach to value technology intangible assets, specifically, a relief from royalty method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The intangible assets, with useful lives from two years to 14 years, are being amortized over a weighted-average useful life of 10.1 years. Intangible assets are amortized using a straight-line method. The amortization methods reflect the timing of the benefits derived from each of the intangible assets.

(Tabular dollar amounts, except share data and per share data, in millions)

The value of the goodwill is primarily related to the expected growth opportunity in the target marketing business from the combined business. We do not expect goodwill to be deductible for tax purposes.

Although we believe that the information gathered to date provides a reasonable basis for estimating the fair values of assets acquired and liabilities assumed, the initial purchase price allocations for Eyeota are preliminary and are subject to revision as permitted by ASC 805. The primary areas of the purchase price allocation that are not yet finalized are related to certain liabilities, contingencies and deferred taxes. We will adjust the associated fair values if facts and circumstances arise that necessitate change. We expect to complete the purchase accounting process as soon as practicable but no later than one year from the acquisition date.

NetWise Data, LLC ("NetWise")

On November 15, 2021, we acquired 100% of the outstanding ownership interests in NetWise, a provider of business to business and business to consumer identity graph and audience targeting data, for a purchase price of $69.8 million of which $62.9 million was paid upon the close of the transaction and the remaining $6.9 million will be paid no later than 19 months after the transaction closing date, subject to net working capital adjustment. The transaction was funded by cash on hand.

The acquisition was accounted for in accordance with ASC 805, as a purchase transaction, and accordingly, the assets and liabilities of the entity were recorded at their estimated fair values at the date of the acquisition. We have included the financial results of NetWise in our consolidated financial statements since the acquisition date. Transaction costs of $0.4 million were included in selling and administrative expenses for the year ended December 31, 2021. We allocated goodwill and intangible assets to our North America segment.

The table below reflects the aggregate purchase price related to the acquisition and the resulting purchase allocation:

	Amortization life (years)	Initial purchase price allocation at December 31, 2021
Cash		$ 2.6
Accounts receivable		2.6
Other		0.4
Total current assets		5.6
Intangible assets:		
Customer relationships	15	19.8
Technology	5	1.3
Trademark	2	0.2
Database	3	2.2
Goodwill	Indefinite	41.9
Total assets acquired		$ 71.0
Total liabilities assumed		1.2
Total purchase price		$ 69.8

The fair value of the customer relationships intangible asset was determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The database intangible asset represents business and consumer data collected and managed by NetWise. The technology intangible asset represents NetWise's data supply and service platform to deliver customer services and solutions. We applied the income approach to value database and technology intangible assets, specifically, a relief from royalty method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The intangible assets, with useful lives from two years to 15 years, are being amortized over a weighted-average useful life of 13.2 years. Intangible assets are amortized using a straight-line method. The amortization methods reflect the timing of the benefits derived from each of the intangible assets.

The value of the goodwill is primarily related to the expected growth opportunity to expand our products and services offerings in marketing business from the combined business. The goodwill recognized is deductible for tax purposes.

Although we believe that the information gathered to date provides a reasonable basis for estimating the fair values of assets acquired and liabilities assumed, the initial purchase price allocations for NetWise are preliminary and are subject to revision as permitted by ASC 805. The primary areas of the purchase price allocation that are not yet finalized are related to certain liabilities and contingencies. We will adjust the associated fair values if facts and circumstances arise that necessitate change. We expect to complete the purchase accounting process as soon as practicable but no later than one year from the acquisition date.

Bisnode Business Information Group AB ("Bisnode")

On January 8, 2021, we acquired 100% ownership of Bisnode, a leading European data and analytics firm and long-standing member of the Dun & Bradstreet WWN alliances, for a total purchase price of $805.8 million. The transaction closed with a combination of cash of $646.9 million and 6,237,087 newly issued shares of common stock of the Company in a private placement valued at $158.9 million based on the stock closing price on January 8, 2021. Upon the close of the transaction, we settled a zero-cost foreign currency collar and received $21.0 million, which reduced our net cash payment for the acquisition. The transaction was partially funded by the proceeds from the $300 million borrowing from the Incremental Term Loan. See Note 6 for further discussion.

The acquisition was accounted for in accordance with ASC 805, as a purchase transaction, and accordingly, the assets and liabilities of the entity were recorded at their estimated fair values at the date of the acquisition. We have included the financial results of Bisnode in our consolidated financial statements since the acquisition date. Transaction costs of $0.4 million and $4.6 million were included in selling and administrative expenses for the years ended December 31, 2021 and 2020, respectively. As a result of the acquisition, we wrote off pre-existing contract assets and liabilities of $2.9 million and $0.8 million to selling and administrative expenses and revenue, respectively, for the year ended December 31, 2021. The acquisition effectively settled these pre-existing relationships. We allocated goodwill and intangible assets to our International segment.

(Tabular dollar amounts, except share data and per share data, in millions)

The table below summarizes the fair value of the assets acquired and liabilities assumed as of the acquisition date:

	Weighted average amortization period (years)	Initial purchase price allocation at March 31, 2021	Measurement period adjustment	Final purchase price allocation at December 31, 2021
Cash		$ 29.9	$ —	$ 29.9
Accounts receivable		61.0	—	61.0
Other current assets		13.1	—	13.1
Total current assets		104.0	—	104.0
Property, plant & equipment		3.5	—	3.5
Intangible assets:				
Reacquired right	15	271.0	(1.0)	270.0
Database	12	116.0	(5.0)	111.0
Customer relationships	10	106.0	2.0	108.0
Technology	14	65.0	(1.0)	64.0
Goodwill	Indefinite	488.4	7.0	495.4
Right of use asset		26.7	0.7	27.4
Other		5.2	(2.3)	2.9
Total assets acquired		$ 1,185.8	$ 0.4	$ 1,186.2
Accounts payable		$ 17.5	$ —	$ 17.5
Deferred revenue (1)		80.6	—	80.6
Accrued payroll		20.7	—	20.7
Accrued income tax and other tax liabilities		17.1	—	17.1
Short-term lease liability		8.4	0.2	8.6
Other current liabilities		23.7	—	23.7
Total current liabilities		168.0	0.2	168.2
Long-term pension and postretirement obligations		65.4	—	65.4
Deferred tax liability		127.6	0.2	127.8
Long-term lease liability		18.2	—	18.2
Other liabilities		0.8	—	0.8
Total liabilities assumed		$ 380.0	$ 0.4	$ 380.4
Total consideration		$ 805.8	$ —	$ 805.8

(1) In the fourth quarter of 2021, we early adopted ASU No. 2021-08, "Business Combinations (Topic 805) Accounting for Contract Assets and Contract Liabilities from Contracts with Customers," retrospectively to all business combinations during 2021. As a result, acquired deferred revenue balances were measured based on the guidance of ASC 606.

The fair value of the reacquired right intangible asset primarily related to rights that were previously granted to Bisnode under the WWN agreement, including rights to sell certain products under the D&B brand name and the right to access D&B database and technology platform. The fair value of reacquired right intangible asset was determined by applying the income approach; specifically, utilizing a multi-period excess earnings method. In addition, as a result of the Bisnode acquisition, we reclassified the net book value of previously recognized WWN relationships intangible asset related to the Bisnode relationship of $64.7 million to reacquired right, which is amortized over 15 years, together with the above-mentioned newly recognized reacquired right.

The fair value of the customer relationships intangible asset was determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The database intangible asset represents business and consumer data collected and managed by Bisnode. The technology intangible asset represents Bisnode's data supply and service platform to deliver customer services and solutions.

(Tabular dollar amounts, except share data and per share data, in millions)

We applied the income approach to value database and technology intangible assets, specifically, a relief from royalty method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The fair values of the acquired assets and liabilities were subject to change within the one-year measurement period. We obtained information to determine the fair values of the net assets acquired at the acquisition date during the measurement period. Since the initial valuation reflected in our financial results as of March 31, 2021, we have adjusted fair value for certain intangible assets based on updated information. An asset and liability was recognized for favorable and unfavorable lease terms, respectively, during the measurement period. In addition, we recorded adjustments to the deferred tax liability reflecting the changes of intangible asset fair value. The above measurement period adjustments to the preliminary valuation of assets and liabilities resulted in a net increase of goodwill of $7.0 million during 2021. We have completed the purchase accounting process as of December 31, 2021.

The value of the goodwill is primarily related to the expected cost synergies and growth opportunity from the combined business. We do not expect goodwill to be deductible for tax purposes.

The intangible assets, with useful lives from 6 to 15 years, are being amortized over a weighted-average useful life of 13.6 years. The customer relationship, technology and database intangible assets are primarily amortized using an accelerating method. Reacquired right is amortized using a straight-line method. The amortization methods reflect the timing of the benefits derived from each of the intangible assets.

See Note 17 for the future amortization as of December 31, 2021 associated with intangible assets recognized as a result of acquisitions.

Unaudited Pro Forma Financial Information

The following pro forma statements of operations data presents the combined results of the Company and the acquired businesses during 2021, assuming that all acquisitions had occurred on January 1, 2020.

	Year ended December 31, 2021	Year ended December 31, 2020
Reported revenue	$ 2,165.6	$ 1,738.7
Pro forma adjustments:		
Pre-acquisition revenue:		
Bisnode	4.6	400.0
Eyeota	31.5	31.5
NetWise	8.4	6.8
Adjustments to Bisnode's pre-acquisition revenue related to revenue received from Dun & Bradstreet Holdings, Inc.	—	(21.0)
Adjustments to Dun & Bradstreet revenue related to revenue received from Bisnode	—	(43.0)
Total pro forma revenue	$ 2,210.1	$ 2,113.0
Reported net income (loss) attributable to Dun & Bradstreet Holdings, Inc.	$ (71.7)	$ (180.6)
Pro forma adjustments - net of tax effect:		
Pre-acquisition net income:		
Bisnode	0.8	57.2
Eyeota	(0.3)	(0.3)
NetWise	(1.2)	1.2
Intangible amortization - net of tax benefits	(1.1)	(56.8)
Write off related to pre-existing relationship - net of tax benefits	2.3	(2.3)
Transaction costs - net of tax benefits	3.0	3.5
Pro forma net income (loss) attributable to Dun & Bradstreet Holdings, Inc.	$ (68.2)	$ (178.1)

(Tabular dollar amounts, except share data and per share data, in millions)

2020 Acquisitions

On January 7, 2020 we acquired a 100% equity interest in Orb Intelligence (“Orb”) for a purchase price of $11.6 million. Orb Intelligence offers a high quality, global database of information, with a focus on building a digital view of businesses' presence.

On March 11, 2020, we acquired substantially all of the assets of coAction.com for a purchase price of $9.6 million, of which $4.8 million was paid upon the close of the transaction and the remaining $4.8 million was paid on September 11, 2020. coAction.com is a leader in revenue cycle management in the Order-to-Cash process, serving mid to large size companies across multiple industries.

The acquisitions were accounted for in accordance with ASC 805, as purchase transactions, and accordingly, the assets and liabilities of both entities were recorded at their estimated fair values at the respective dates of the acquisitions. Transaction costs of $0.2 million were included in selling and administrative expenses in the consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2020. We have included the financial results of Orb and coAction.com in our consolidated financial statements since their respective acquisition dates, and the results from each of these companies were not individually or in the aggregate material to our consolidated financial statements for the year ended December 31, 2020. We allocated goodwill and intangible assets to our North America segment and completed the purchase accounting process as of December 31, 2020.

The table below reflects the aggregate purchase price related to the acquisitions and the resulting purchase allocation:

	Amortization life (years)	Initial purchase price allocation at March 31, 2020	Measurement period adjustments	Final purchase price allocation at December 31, 2020
Cash		$ 0.5	$ —	$ 0.5
Accounts receivable		0.3	—	0.3
Other		0.2	0.1	0.3
Total current assets		1.0	0.1	1.1
Intangible assets:				
Customer relationships	7	2.4	—	2.4
Technology	11	6.8	—	6.8
Goodwill	Indefinite	10.7	0.2	10.9
Deferred tax asset		0.4	—	0.4
Total assets acquired		$ 21.3	$ 0.3	$ 21.6
Total liabilities assumed		0.2	0.2	0.4
Total purchase price		$ 21.1	$ 0.1	$ 21.2

The fair value of the customer relationships intangible assets was determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured assets.

The fair value of the technology intangible assets was determined by applying the income approach; specifically, a relief from royalty method.

The value of the goodwill is primarily related to the acquired businesses’ capability associated with product development which provides opportunity to expand our products and services offerings as well as cost synergy generated from the combined business. The intangible assets are amortized using a straight-line method. The amortization method reflects the timing of the benefits derived from each of the intangible assets.

The goodwill acquired was partially deductible for tax purposes.

(Tabular dollar amounts, except share data and per share data, in millions)

2019 Acquisition

On July 1, 2019, the Company acquired a 100% ownership interest in Lattice Engines, Inc. ("Lattice"). Lattice is an artificial intelligence powered customer data platform, enabling business-to-business organizations to scale their account-based marketing and sales programs across every channel. The results of Lattice have been included in our consolidated financial statements since the date of acquisition. We had finalized the purchase allocation as of March 31, 2020 and there were no changes compared to the amounts recorded as of December 31, 2019. In connection with the acquisition of Lattice, the Company received capital funding of $100 million from Parent's partners.

The acquisition was accounted for in accordance with ASC 805. The acquisition was valued at $127 million. Transaction costs of $0.6 million were included in selling and administrative expenses in the consolidated statement of operations and comprehensive income (loss) for the period from January 1, 2019 to December 31, 2019. The acquisition was accounted for as a purchase transaction, and accordingly, the assets and liabilities of the acquired entity were recorded at their estimated fair values at the date of the acquisition.

The table below reflects the purchase price related to the acquisition and the resulting purchase allocation:

	Amortization life (years)	Initial purchase price allocation at September 30, 2019	Measurement period adjustments	Final purchase price allocation at March 31, 2020
Cash		$ 0.1	$ —	$ 0.1
Accounts receivable		1.9	—	1.9
Other		0.7	—	0.7
Total current assets		2.7	—	2.7
Intangible assets:				
Customer relationships	11	25.1	(10.6)	14.5
Technology	14	48.0	(0.6)	47.4
Goodwill		43.0	12.2	55.2
Deferred tax asset		18.4	(0.9)	17.5
Other assets		0.7	(0.2)	0.5
Total assets acquired		$ 137.9	$ (0.1)	$ 137.8
Deferred revenue		$ 6.5	$ —	$ 6.5
Other liabilities		4.4	(0.1)	4.3
Total liabilities assumed		10.9	(0.1)	10.8
Total purchase price		$ 127.0	$ —	$ 127.0

The fair value of the client relationships intangible assets was determined by applying the income approach through a discounted cash flow analysis, specifically a multi-period excess earnings method. The valuation was based on the present value of the net earnings attributable to the measured asset.

The technology intangible asset represents Lattice's premier client data platform to deliver client services and solutions. The fair value of this intangible asset was determined by applying the income approach; specifically, a relief from royalty method.

The fair value of the deferred revenue was determined based on estimated direct costs to fulfill the related obligations, plus a reasonable profit margin based on selected peer companies' margins as a benchmark.

The value of the goodwill is primarily related to Lattice's capability associated with product development which provides potential growth opportunity in the Sales & Marketing space as well as cost synergy generated from the combined business. The intangible assets are amortized using a straight-line method. The amortization method reflects the timing of the benefits derived from each of the intangible assets.

The goodwill acquired was not deductible for tax purposes.

(Tabular dollar amounts, except share data and per share data, in millions)

Unaudited Pro Forma Financial Information

The following pro forma statements of operations data presents the combined results of the Company and Lattice, assuming that the acquisition had occurred on January 1, 2018.

	Successor	Predecessor	
	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019	Year ended December 31, 2018
Reported revenue	$ 1,439.0	$ 178.7	$ 1,716.4
Lattice revenue - pre-acquisition revenue	11.1	2.9	25.1
Add: deferred revenue adjustment	2.4	—	(4.8)
Total pro forma revenue	$ 1,452.5	$ 181.6	$ 1,736.7
Reported net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor)/The Dun & Bradstreet Corporation (Predecessor)	$ (674.1)	$ (75.6)	$ 288.1
Pro forma adjustments - net of tax effect			
Pre-acquisition net loss	(19.7)	(1.0)	(13.1)
Intangible amortization - net of tax benefits	(1.4)	(0.4)	(3.6)
Deferred revenue adjustment - net of tax benefits	1.8	—	(3.6)
Transaction costs - net of tax benefits	0.4	—	(0.4)
Pro forma net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (693.0)	$ (77.0)	$ 267.4

Note 17 -- Supplemental Financial Data

Other Non-Current Assets

	December 31, 2021	December 31, 2020
Right of use assets (1)	$ 71.9	$ 64.8
Prepaid pension assets (2)	36.6	4.3
Investments	27.2	27.3
Other non-current assets (3)	36.9	16.2
Total	$ 172.6	$ 112.6

(1) See Note 7 to the consolidated financial statements for further detail.

(2) Change from prior year reflected higher over-funded status for certain pension plans primarily due to higher discount rates in 2021.

(3) Higher other non-current assets were due to higher business activities including acquisitions closed in 2021.

Other Accrued and Current Liabilities:

	December 31, 2021	December 31, 2020
Accrued operating costs (1)	$ 110.4	$ 75.7
Accrued interest expense	12.6	29.0
Short-term lease liability (2)	26.0	23.4
Accrued income tax	16.4	3.9
Other accrued liabilities (3)	32.9	23.0
Total	$ 198.3	$ 155.0

(Tabular dollar amounts, except share data and per share data, in millions)

(1) Higher accrual was primarily due to higher business activity resulting from acquisitions that closed in 2021 and a higher legal reserve related to a regulatory matter. See Note 8 for detail discussion.

(2) See Note 7 to the consolidated financial statements for further detail.

(3) Higher accrual was primarily due to higher business activity resulting from acquisitions that closed in 2021.

Other Non-Current Liabilities:

	December 31, 2021	December 31, 2020
Deferred revenue - long term	$ 13.7	$ 14.6
U.S. tax liability associated with the 2017 Act	44.6	49.8
Long-term lease liability (1)	59.4	62.5
Liabilities for unrecognized tax benefits	19.2	18.9
Other	7.8	8.6
Total	$ 144.7	$ 154.4

(1) See Note 7 to the consolidated financial statements for further detail.

Property, Plant and Equipment - Net:

	December 31, 2021	December 31, 2020
Land	$ 7.7	$ —
Building and building improvement	$ 61.8	$ —
Less: accumulated depreciation	0.7	—
Net building and building improvement	$ 61.1	$ —
Furniture and equipment	$ 38.2	$ 24.4
Less: accumulated depreciation	19.5	9.5
Net furniture and equipment	$ 18.7	$ 14.9
Leasehold improvements	$ 16.6	$ 15.6
Less: accumulated depreciation	7.3	4.8
Net leasehold improvements	$ 9.3	$ 10.8
Property, plant and equipment - net	$ 96.8	$ 25.7

Property, plant and equipment depreciation and amortization expense for the year ended December 31, 2021 (Successor), the year ended December 31, 2020 (Successor), the period from January 1, 2019 to December 31, 2019 (Successor) and the period from January 1, 2019 to February 7, 2019 (Predecessor) was $11.9 million, $9.5 million, $8.4 million and $1.1 million, respectively. We also recorded impairment charges of $0.2 million and $4.4 million included in selling and administrative expenses in the consolidated statement of operations and comprehensive income (loss) for the year ended December 31, 2021 (Successor) and the year ended December 31, 2020 (Successor), respectively, primarily related to leasehold improvements for offices we ceased to occupy.

On June 30, 2021, we completed the purchase of an office building in Jacksonville, Florida for our new global headquarters office, with a purchase price of $76.6 million, paid with cash on hand, inclusive of transaction costs of $0.1 million. The transaction was accounted for as an asset acquisition. Total costs of the acquisition were allocated to tangible assets (e.g., land and building) and in-place lease intangible asset based on their relative fair values. The fair values of the land

(Tabular dollar amounts, except share data and per share data, in millions)

and building are measured as if the building was vacant. The approaches used to value the building components include the cost, sales comparison, and income capitalization approaches. The table below summarizes the allocation of the total purchase price.

	Weighted average amortization period (years)	Purchase price allocation
Land	Indefinite	$ 7.7
Building	53	57.3
Site improvements	14	2.0
Tenant improvements	9	2.5
In place lease intangibles (1)	9	7.1
Total		$ 76.6

(1) Related to the acquired lease arrangement, reflecting value associated with avoiding the costs of originating an acquired lease.

Computer Software and Goodwill:

	Computer software	Goodwill
Successor:		
December 31, 2019	$ 382.2	$ 2,841.7
Acquisition (4)	—	10.9
Additions at cost (1)	114.5	—
Amortization	(71.4)	—
Write-off	(1.0)	—
Other (2)	12.7	5.3
December 31, 2020	$ 437.0	$ 2,857.9
Acquisition (3)	79.3	675.6
Additions at cost (1) (7)	173.9	—
Amortization	(113.3)	—
Write-off	(4.3)	—
Other (2)	(15.2)	(40.2)
December 31, 2021	$ 557.4	$ 3,493.3

The computer software amortization expense was $50.6 million for the period from January 1, 2019 to December 31, 2019 (Successor) and $6.8 million for the period from January 1, 2019 to February 7, 2019 (Predecessor).

(Tabular dollar amounts, except share data and per share data, in millions)

Other Intangibles:

	Customer relationships	Reacquired rights	Database	Other indefinite-lived intangibles	Other intangibles	Total
December 31, 2019	$ 2,162.7	$ —	$ 1,550.6	$ 1,275.8	$ 265.4	$ 5,254.5
Acquisitions (4)	2.4	—	—		6.8	9.2
Additions at cost	—	—	0.1	—	0.7	0.8
Amortization	(255.2)	—	(181.3)	—	(20.4)	(456.9)
Other (2)	3.0	—	—	—	4.2	7.2
December 31, 2020 (5)	$ 1,912.9	$ —	$ 1,369.4	$ 1,275.8	$ 256.7	$ 4,814.8
Acquisitions (3)	147.8	270.0	113.2	—	1.4	532.4
Additions at cost (6)	—	—	—	4.2	7.6	11.8
Amortization	(259.0)	(26.6)	(188.6)	—	(16.5)	(490.7)
WWN Relationship transfer (8)	—	64.7	—	—	(64.7)	—
Other (2)	(8.4)	(23.4)	(8.9)	—	(3.1)	(43.8)
December 31, 2021 (5)	$ 1,793.3	$ 284.7	$ 1,285.1	$ 1,280.0	$ 181.4	$ 4,824.5

(1) Primarily related to software-related enhancements on products.

(2) Primarily due to the impact of foreign currency fluctuations.

(3) Related to the acquisitions of Bisnode, Eyeota and NetWise.

(4) Related to the acquisition of Orb Intelligence and coAction.com.

(5) Customer Relationships—Net of accumulated amortization of $755.1 million and $497.0 million as of December 31, 2021 and as of December 31, 2020, respectively.
Database—Net of accumulated amortization of $540.4 million and $352.7 million as of December 31, 2021 and as of December 31, 2020, respectively.
Other Intangibles —Net of accumulated amortization of $44.2 million and $37.8 million as of December 31, 2021 and as of December 31, 2020, respectively.

(6) Primarily related to the in-place lease intangibles of $7.1 million recognized associated with the building purchase for our new global headquarters office and an acquired indefinite-lived intangible asset of $4.2 million.

(7) Including $7.9 million non-cash investment of which $0.9 million, $2.5 million and $4.5 million were reflected in "Other accrued and short-term liability", "Other non-current liability" and "Deferred income tax", respectively, as of December 31, 2021.

(8) Reclassification of the net book value of previously recognized WWN relationships intangible asset related to the Bisnode relationship to reacquired rights as a result of the Bisnode acquisition.

The other intangibles amortization expense for the period from January 1, 2019 to December 31, 2019 (Successor) was $428.1 million and $3.2 million for the period from January 1, 2019 to February 8, 2019 (Predecessor).

The table below sets forth the future amortization as of December 31, 2021 associated with computer software and other intangibles:

	2022	2023	2024	2025	2026	Thereafter	Total
Reacquired rights	$ 22.3	$ 22.3	$ 22.3	$ 22.3	$ 22.3	$ 173.2	$ 284.7
Computer software	135.5	133.1	109.9	78.4	39.8	60.8	557.5
Customer relationship	243.8	225.8	207.6	189.5	171.5	755.1	1,793.3
Database	177.0	163.6	150.0	136.0	122.5	536.0	1,285.1
Other Intangibles	16.9	16.8	16.3	16.3	16.2	98.9	181.4
Total	$ 595.5	$ 561.6	$ 506.1	$ 442.5	$ 372.3	$ 1,624.0	$ 4,102.0

(Tabular dollar amounts, except share data and per share data, in millions)

Allowance for Credit Risks:

Predecessor:		
December 31, 2018	$	14.1
Additions charged to costs and expenses		0.7
Write-offs		(0.6)
Recoveries		0.2
Other		0.2
February 7, 2019	$	14.6
Successor:		
January 1, 2019	$	—
Additions charged to costs and expenses		5.4
Write-offs		(0.4)
Recoveries		2.5
Other		0.1
December 31, 2019	$	7.6
Additions charged to costs and expenses		8.1
Write-offs		(5.8)
Recoveries		1.8
Other		(0.3)
December 31, 2020	$	11.4
Additions charged to costs and expenses		12.3
Write-offs		(8.3)
Recoveries		1.4
Other		(0.3)
December 31, 2021	$	16.5

(Tabular dollar amounts, except share data and per share data, in millions)

Deferred Tax Asset Valuation Allowance:

Predecessor:		
December 31, 2018	$	34.4
Additions charged (credited) to costs and expenses		—
Additions charged (credited) due to foreign currency fluctuations		—
Additions charged (credited) to other accounts		—
February 7, 2019	$	34.4

Successor:		
January 1, 2019	$	—
Acquisition		60.8
Additions charged (credited) to costs and expenses		(27.2)
Additions charged (credited) due to foreign currency fluctuations		0.2
January 1, 2020	$	33.8
Additions charged (credited) to costs and expenses		0.5
Additions charged (credited) due to foreign currency fluctuations		2.3
Additions charged (credited) to other accounts		—
December 31, 2020	$	36.6
Additions charged (credited) to costs and expenses		4.2
Additions charged (credited) due to foreign currency fluctuations		(1.6)
Additions charged (credited) to other accounts		0.2
December 31, 2021	$	39.4

Other Income (Expense) — Net

Other income (expense) - net was as follows:

	Successor			Predecessor
	Year ended December 31, 2021	**Year ended December 31, 2020**	**Period from January 1 to December 31, 2019**	**Period from January 1 to February 7, 2019**
Non-operating pension income (expense) (1)	$ 53.7	$ 46.2	$ 36.5	$ (85.7)
Change in fair value of make-whole derivative liability (2)	—	(32.8)	(172.4)	—
Debt redemption premium (3)	(29.5)	(50.1)	—	—
Miscellaneous other income (expense) – net (4)	(9.3)	25.1	(17.6)	(0.3)
Other income (expense) – net	$ 14.9	$ (11.6)	$ (153.5)	$ (86.0)

(1) Higher non-operating pension income for the year ended December 31, 2021 compared to the year ended December 31, 2020 was primarily driven by lower interest cost.

Higher non-operating pension income for the year ended December 31, 2020 compared to the period from January 1, 2019 to December 31, 2019 was primarily driven by lower interest cost and higher expected asset return. Higher non-operating pension expense for the period from January 1, 2019 to February 7, 2019 was due to a non-recurring pension settlement charge of $85.8 million related to the then-existing U.S. Non-Qualified plans.

(2) Related to the make-whole provision associated with the Series A Preferred Stock. See Note 1 to the consolidated financial statements.

(3) See Note 6 to the consolidated financial statements.

(Tabular dollar amounts, except share data and per share data, in millions)

(4) The change in Miscellaneous Other Income - net for the year ended December 31, 2021 compared to the year ended December 31, 2020 was primarily driven by a gain recorded in the prior year associated with the change in fair value related to the foreign currency collar we entered into in connection with the Bisnode acquisition and higher foreign currency exchange gains in the prior year related to the revaluation of our intercompany loans.

The increase in Miscellaneous Other Expense - net for the year ended December 31, 2020 compared to each of the prior periods was primarily driven by the change in fair value related to the foreign currency collar we entered into in connection with the Bisnode acquisition and higher foreign currency exchange gains in 2020 related to the revaluation of our intercompany loans.

Note 18 -- Segment Information

Our segment disclosure is intended to provide the users of our consolidated financial statements with a view of the business that is consistent with management of the Company.

We manage our business and report our financial results through the following two segments:

- North America offers Finance & Risk and Sales & Marketing data, analytics and business insights in the United States and Canada; and
- International offers Finance & Risk and Sales & Marketing data, analytics and business insights directly in the U.K., Europe, Greater China and India and indirectly through our WWN alliances.

On January 8, 2021, we acquired 100% ownership of Bisnode and in November 2021, we acquired 100% ownership of Eyeota and NetWise (together "Eyeota/NetWise"). See Note 16 for further discussion. Financial results of Bisnode and Eyeota/NetWise have been included in our International segment and North America segment, respectively, since the respective acquisition dates,

We use EBITDA as the primary profitability measure for making decisions regarding ongoing operations. We define adjusted EBITDA as net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor)/The Dun & Bradstreet Corporation (Predecessor) excluding the following items: (i) depreciation and amortization; (ii) interest expense and income; (iii) income tax benefit or provision; (iv) other non-operating expenses or income; (v) equity in net income of affiliates; (vi) net income attributable to non-controlling interests; (vii) dividends allocated to preferred stockholders; (viii) other incremental or reduced expenses and revenue from the application of purchase accounting (e.g. commission asset amortization and acquisitions); (ix) equity-based compensation; (x) restructuring charges; (xi) merger and acquisition-related operating costs; (xii) transition costs primarily consisting of non-recurring expenses associated with transformational and integration activities, as well as incentive expenses associated with our synergy program; (xiii) legal reserve and costs associated with significant legal and regulatory matters; and (xiv) asset impairment. Our client solution sets are Finance & Risk and Sales & Marketing. Inter-segment sales are immaterial, and no single client accounted for 10% or more of our total revenue.

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Revenue:				
North America	$ 1,499.4	$ 1,460.0	$ 1,317.5	$ 148.2
International	671.0	299.8	260.4	30.5
Corporate and other (1)	(4.8)	(21.1)	(138.9)	—
Consolidated total	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7

(1) Corporate and other includes revenue adjustment of $4.8 million recorded in accordance with GAAP to the International segment due to the timing of the completion of the Bisnode acquisition for the year ended December 31, 2021, deferred revenue purchase accounting adjustments recorded in accordance with GAAP related to the Take-Private Transaction and acquisitions of $21.1 million for the year ended December 31, 2020 and $138.9 million for the period from January 1, 2019 to December 31, 2019.

(Tabular dollar amounts, except share data and per share data, in millions)

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Adjusted EBITDA				
North America	$ 715.3	$ 696.2	$ 629.9	$ 60.4
International	194.1	91.0	87.8	12.5
Corporate and other (1)	(62.3)	(75.8)	(212.6)	(9.3)
Consolidated total	$ 847.1	$ 711.4	$ 505.1	$ 63.6
Depreciation and amortization	(615.9)	(537.8)	(487.1)	(11.1)
Interest expense - net	(205.7)	(270.4)	(301.0)	(5.2)
Dividends allocated to preferred stockholders	—	(64.1)	(114.0)	—
Benefit (provision) for income taxes	(23.4)	112.4	118.3	27.5
Other income (expense) - net	14.9	(11.6)	(153.5)	(86.0)
Equity in net income of affiliates	2.7	2.4	4.2	0.5
Net income (loss) attributable to non-controlling interest	(5.8)	(4.9)	(6.4)	(0.8)
Other incremental or reduced expenses and revenue from the application of purchase accounting	12.9	18.8	21.2	—
Equity-based compensation	(33.3)	(45.1)	(11.7)	(11.7)
Restructuring charges	(25.1)	(37.3)	(52.3)	(0.1)
Merger and acquisition-related operating costs	(14.1)	(14.1)	(161.1)	(52.0)
Transition costs	(11.6)	(31.9)	(32.3)	(0.3)
Legal reserve associated with significant legal and regulatory matters	(12.8)	(3.9)	0.2	—
Asset impairment	(1.6)	(4.5)	(3.7)	—
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc. (Successor) / The Dun & Bradstreet Corporation (Predecessor)	$ (71.7)	$ (180.6)	$ (674.1)	$ (75.6)

(1) Corporate and other includes revenue adjustment of $4.8 million recorded in accordance with GAAP to the International segment due to the timing of the completion of the Bisnode acquisition for the year ended December 31, 2021, deferred revenue purchase accounting adjustments recorded in accordance with GAAP related to the Take-Private Transaction and acquisitions of $21.1 million for the year ended December 31, 2020 and $138.9 million for the period from January 1, 2019 to December 31, 2019.

(Tabular dollar amounts, except share data and per share data, in millions)

	Successor			Predecessor
	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
Depreciation and amortization:				
North America	$ 60.2	$ 46.3	$ 36.1	$ 5.8
International	12.1	8.3	6.2	1.5
Total segments	72.3	54.6	42.3	7.3
Corporate and other (1)	543.6	483.2	444.8	3.8
Consolidated total	$ 615.9	$ 537.8	$ 487.1	$ 11.1
Capital expenditures:				
North America (2)	$ 81.1	$ 1.9	$ 9.5	$ 0.2
International	5.1	5.8	1.9	0.1
Total segments	86.2	7.7	11.4	0.3
Corporate and other	0.1	0.1	1.0	(0.1)
Consolidated total	$ 86.3	$ 7.8	$ 12.4	$ 0.2
Additions to computer software and other intangibles:				
North America (3)	$ 144.0	$ 107.4	$ 48.8	$ 4.3
International	25.8	6.4	6.5	0.8
Total segments	169.8	113.8	55.3	5.1
Corporate and other	0.9	1.4	2.1	—
Consolidated total	$ 170.7	$ 115.2	$ 57.4	$ 5.1

(1) Depreciation and amortization for Corporate and other includes incremental amortization resulting from the Take-Private Transaction and recent acquisitions.
(2) The increase in capital expenditures for North America was primarily due to the $76.6 million purchase of an office building for our new global headquarters office in June 2021. See Note 17 for further discussion.
(3) In-place lease intangibles of $7.1 million for the year ended December 31, 2021 related to the building purchase for our new global headquarters office are included in capital expenditures. See Note (2) above.

(Tabular dollar amounts, except share data and per share data, in millions)

Supplemental Geographic and Customer Solution Set Information:

	December 31, 2021	December 31, 2020
Assets:		
North America	$ 8,232.2	$ 8,522.9
International	1,765.0	697.4
Consolidated total	$ 9,997.2	$ 9,220.3
Goodwill:		
North America	$ 2,928.4	$ 2,745.5
International	564.9	112.4
Consolidated total	$ 3,493.3	$ 2,857.9
Other intangibles:		
North America	$ 4,186.2	$ 4,534.5
International	638.3	280.3
Consolidated total	$ 4,824.5	$ 4,814.8
Other long-lived assets (excluding deferred income tax):		
North America	$ 713.4	$ 562.9
International	229.5	96.2
Consolidated total	$ 942.9	$ 659.1
Total long-lived assets	$ 9,260.7	$ 8,331.8

	Successor			Predecessor
Customer Solution Set Revenue	Year ended December 31, 2021	Year ended December 31, 2020	Period from January 1 to December 31, 2019	Period from January 1 to February 7, 2019
North America (1):				
Finance & Risk	$ 834.7	$ 811.2	$ 729.1	$ 80.4
Sales & Marketing	664.7	648.8	588.4	67.8
Total North America	$ 1,499.4	$ 1,460.0	$ 1,317.5	$ 148.2
International:				
Finance & Risk	$ 430.3	$ 244.0	$ 210.4	$ 24.2
Sales & Marketing	240.7	55.8	50.0	6.3
Total International	$ 671.0	$ 299.8	$ 260.4	$ 30.5
Corporate and other:				
Finance & Risk	$ (2.2)	$ (10.8)	$ (82.9)	$ —
Sales & Marketing	(2.6)	(10.3)	(56.0)	—
Total Corporate and other	$ (4.8)	$ (21.1)	$ (138.9)	$ —
Total Revenue:				
Finance & Risk	$ 1,262.8	$ 1,044.4	$ 856.6	$ 104.6
Sales & Marketing	902.8	694.3	582.4	74.1
Total Revenue	$ 2,165.6	$ 1,738.7	$ 1,439.0	$ 178.7

(1) Substantially all of the North America revenue is attributable to the United States.

Note 19 -- Related Parties

The following sets forth certain transactions and agreements in which the Company and our affiliates, executive officers and certain directors are involved.

After the completion of the Take-Private Transaction on February 8, 2019, our parent entity was collectively controlled by entities affiliated with Bilcar, LLC ("Bilcar"), Thomas H. Lee Partners, L.P. ("THL"), Cannae Holdings, Inc. ("Cannae Holdings"), Black Knight, Inc. ("Black Knight") and CC Capital Partners LLC ("CC Capital"), collectively the "Investor Consortium." Subsequent to the close of the IPO and the concurrent private placement on July 6, 2020 (see Note 1 for further discussion), the Investor Consortium continues to be able to exercise significant voting influence over fundamental and significant corporate matters and transactions by their ability to designate five members of our board of directors.

Our Chief Executive Officer Anthony Jabbour also serves as the Chairman and Chief Executive Officer of Black Knight and a member of the board of directors of Paysafe Limited ("Paysafe"). On February 15, 2022, Black Knight announced that Mr. Jabbour would transition to Executive Chairman and no longer serve as Black Knight's Chief Executive Officer effective as of May 16, 2022. Stephen C. Daffron, co-founder of Motive Partners, served as our President and Chief Operating Officer until May 2021. Additionally, William P. Foley II, our Chairman of the board, also serves as Chairman of Cannae Holdings and formerly served as Chairman of Black Knight. Richard N. Massey, a member of the Company's board of directors, serves as Chief Executive Officer and as a director of Cannae Holdings. Certain of our key employees have dual responsibilities among the Investor Consortium.

In June 2021, we entered into a five-year agreement with Black Knight. Pursuant to the agreement, D&B will receive total data license fees of approximately $24 million over a five-year period. Also over the five-year period, Black Knight is engaged to provide certain products and data, as well as professional services for an aggregate fee of approximately $34 million. In addition, D&B and Black Knight will jointly market certain solutions and data. The agreement was approved by our Audit Committee. We recognized $4.5 million of revenue for the year ended December 31, 2021 and operating expenses of $1.9 million for the year ended December 31, 2021. As of December 31, 2021, we included a receivable from Black Knight of $0.2 million within "Accounts receivable" and a liability to Black Knight of $3.4 million, of which $0.9 million was within "Other accrued and current liabilities" and $2.5 million was within "Other non-current liabilities."

In September 2021, we entered into a 10-year agreement with Paysafe. Pursuant to the agreement, D&B will provide data license and risk management solution services to Paysafe. The agreement is cancellable by either party without penalty at each annual anniversary of the contract effective date by providing written notice not less than 90 days prior to the anniversary date. The agreement was approved by our Audit Committee. In connection with the agreements associated with Paysafe, we recognized revenue of $4.5 million for the year ended December 31, 2021, and operating expenses of $1.2 million for the year ended December 31, 2021. As of December 31, 2021, we included a receivable from Paysafe of $4.1 million within "Accounts receivable" and a liability to Paysafe of $1.2 million within "Other accrued and current liabilities."

In November 2020, we entered into a consulting service agreement with Black Knight. The agreement is cancellable upon mutual agreement. Pursuant to the agreement, Black Knight provides the Company consulting services, in exchange for fees in an amount equal to Black Knight's cost plus 10 percent markup. We recorded $0.1 million consulting fees to Black Knight for the year ended December 31, 2021.

On January 1, 2020, the Company entered into a three-year service agreement with Trasimene Capital Management, LLC (the "Advisor"), an entity affiliated with Cannae Holdings, and controlled by Mr. Foley. The agreement is subject to renewal. Pursuant to the agreement, the Advisor provides the Company strategic advisory services, in exchange for transaction fees that are calculated based on 1% of the value of each transaction for which the Advisor performs services. Under the service agreement, the Company is also obligated to reimburse the reasonable and documented out-of-pocket expenses incurred by the Advisor. We incurred costs of $0.4 million for transaction fees to the Advisor for the year ended December 31, 2020.

In connection with the IPO transaction, the Originating Sponsors agreed to waive certain anti-dilution rights they had pursuant to the Star Parent Partnership Agreement and to terminate such provision following the offering. In exchange for such waiver and termination, we made a payment of $30.0 million to the Originating Sponsors upon the closing of the IPO transaction on July 6, 2020. In addition, on June 30, 2020, each of Mr. Foley and Mr. Chu received options to purchase 2,080,000 shares of our common stock at an exercise price equal to the initial public offering price. The options were fully vested upon grant. The options were valued at $20.0 million, which was reflected in Selling and Administrative Expenses for the year ended December 31, 2020.

In connection with and immediately subsequent to the closing of the IPO, a subsidiary of Cannae Holdings, a subsidiary of Black Knight and affiliates of CC Capital purchased a total of 18,458,700 shares of common stock from us in a private placement at a price per share equal to 98.5% of the IPO price of $22.00 per share for proceeds of $200.0 million, $100.0 million and $100.0 million, respectively.

On February 8, 2019, the Company entered into a services agreement with MVB Management, LLC ("MVB"), an entity affiliated with William P. Foley II, who is affiliated with Bilcar, and Chinh E. Chu, who is affiliated with CC Capital, and THL Managers VIII, LLC ("THL Managers"), an entity affiliated with THL, pursuant to which MVB and THL Managers provided services in connection with the Take-Private Transaction. The Company paid a total fee of $29.1 million to MVB under the agreement upon the close of the Take-Private Transaction, which we included as "selling and administrative expenses" in the Successor's statement of operations and comprehensive income (loss) for the period from January 1, 2019 to December 31, 2019. Under the services agreement, the Company must reimburse the reasonable and documented out-of-pocket expenses incurred by MVB and THL Managers in performing the ongoing services. The Company has made no payments pursuant to the reimbursement provision during the year ended December 31, 2020 and the period from January 1, 2019 to December 31, 2019. The reimbursement provision was terminated following the IPO transaction. Also in connection with the IPO transaction, we paid fees of $2.5 million each to THL Managers and entities affiliated with William P. Foley II and Chinh E. Chu (Bilcar and CC Star Holdings, LP, respectively) for services provided prior to the IPO.

Pursuant to the equity commitment fee letter entered into on February 8, 2019 with THL Managers and Cannae Holdings, each committed to provide certain funding to Parent in connection with the Take-Private Transaction for which THL Managers and Cannae Holdings received a fee of $7.5 million and $12.0 million, respectively. These fees reduced the proceeds from capital contribution to the Company made in February 2019.

Pursuant to the Star Parent, L.P. Partnership Agreement, an entity jointly controlled by affiliates of CC Capital and Bilcar (the "Originating Sponsors") was granted 6,817.7428 Class B profits interest units of Parent, which were valued at $17.3 million and were included as "selling and administrative expenses" in the Successor's statement of operations and comprehensive income (loss) for the period from January 1, 2019 to December 31, 2019. Pursuant to the Star Parent, L.P. Partnership Agreement, the Originating Sponsors also received 15,867.8087 Class C profits interest units of Parent upon the close of the Take-Private Transaction. The units were valued at approximately $37.9 million and included within "selling and administrative expenses" in the consolidated statement of operations and comprehensive income (loss) for the period from January 1, 2019 to December 31, 2019 (Successor).

Upon the close of the Take-Private Transaction, Motive Partners received $0.6 million related to due diligence consulting services pursuant to a services agreement between Parent and Motive Partners.

In August 2019, the Company entered into a five-year lease agreement with Motive Partners related to the office space for the Company's London sales office starting August 1, 2019. This lease was terminated in June 2020 with a termination fee of $0.1 million. We recorded total lease costs of $1.0 million for the year ended December 31, 2020. In December 2019, the Company entered into a one-year lease agreement with Motive Partners for operations in New York starting January 1, 2020. Total payments over the one-year lease term aggregate to approximately $0.2 million.

In the normal course of business, we reimburse affiliates for certain travel costs incurred by Dun & Bradstreet Holdings, Inc. executives and board members.

Note 20 -- Contractual Obligations

Technology, Data and Other Service Agreements

We have various contractual commitments in the normal course of business primarily related to information technology and data processing service, technology support for product application development and global system maintenance. The purchase obligation as of December 31, 2021 is approximately $1,563 million.

Worldwide Network Alliance Agreements

We have entered into commercial service agreements with our third-party Worldwide Network Alliances with various terms ranging from five to 10 years. These agreements provide us access to certain international data and services from our partners in order to serve our global clients. Effective January 1, 2020, we renegotiated our agreements with our Worldwide

(Tabular dollar amounts, except share data and per share data, in millions)

Network Alliances, which expanded our buying capacity. At December 31, 2021, total payments to our Worldwide Network Alliances over the remaining terms of all agreements aggregate to approximately $474 million.

The following table quantifies our future contractual obligations as discussed above as of December 31, 2021:

	2022	2023	2024	2025	2026	Thereafter	Total
Commitments to purchase obligations	$ 317.6	$ 249.7	$ 204.9	$ 194.8	$ 204.9	$ 864.8	$ 2,036.7

The table above excludes our obligations with respect to debt, leases, contingent liabilities, unrecognized tax benefits and pension obligations for which funding requirements are uncertain. Our obligations with respect to debt, leases, contingent liabilities, unrecognized tax benefits, and pension and postretirement medical benefit plans are described in Notes 6, 7, 8, 9 and 10, respectively to our consolidated financial statements.

Note 21 -- Quarterly Financial Data (Unaudited)

Our quarterly financial statements are prepared on the same basis as the audited annual financial statements, and include all adjustments necessary for the fair statement of our results of operations for these periods.

	For the Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
2021				
Revenue	$ 504.5	$ 520.9	$ 541.9	$ 598.3
Operating income (loss)	$ 8.3	$ 26.9	$ 49.5	$ 60.9
Net income (loss) (1)	$ (23.3)	$ (50.8)	$ 18.2	$ (10.0)
Net (income) loss attributable to the non-controlling interest	$ (1.7)	$ (0.9)	$ (1.6)	$ (1.6)
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc.	$ (25.0)	$ (51.7)	$ 16.6	$ (11.6)

(1) Includes an expense within non-operating expense-net of $29.5 million and $12.5 million in the three months ended December 31, 2021 related to the early redemption premium paid and the write-off of the associated debt issuance cost and discount, respectively, as a result of the partial redemption of our senior secured and unsecured notes (see Note 6).

	For the Three Months Ended			
	March 31,	June 30,	September 30,	December 31,
2020				
Revenue (1)	$ 395.7	$ 418.7	$ 444.4	$ 479.9
Operating income (loss) (2)	$ (7.2)	$ (2.3)	$ 45.5	$ 19.6
Net income (loss) (3)(4)	$ 74.3	$ (174.7)	$ (14.3)	$ 3.1
Net (income) loss attributable to the non-controlling interest	$ (0.4)	$ (1.2)	$ (2.0)	$ (1.3)
Net income (loss) attributable to Dun & Bradstreet Holdings, Inc.	$ 41.9	$ (208.0)	$ (16.3)	$ 1.8

(1) Includes a reduction of revenue of $17.4 million for the three months ended March 31, 2020 due to deferred revenue purchase accounting adjustment in connection with the Take-Private Transaction.

(2) Included within selling and administrative expenses is an expense of $20.0 million for the three months ended June 30, 2020, related to stock option expense in connection with the IPO.

(3) Includes an expense within non-operating expense-net of $41.3 million and $25.5 million in the three months ended June 30, 2020 and September 30, 2020, respectively, related to the premium paid and the write-off of the associated debt issuance cost and discount as a result of the partial redemption of our senior secured and unsecured notes (see Note 6).

(4) Includes within non-operating expense-net a gain of $69.8 million for the three months ended March 31, 2020, and an expense of $102.6 million for the three months ended June 30, 2020 related to the change in fair value of make-whole derivative liability.

Note 22 -- Subsequent Events

Effective January 18, 2022, we amended our credit agreement dated February 8, 2019, specifically related to the Term Loan Facility, to establish Incremental Term Loans in an aggregate principal amount of $460 million. We used the proceeds of such Incremental Term Loans to redeem our outstanding $420 million in aggregate principal amount of our 6.875% Senior Secured Notes due 2026 and pay related fees, costs, premiums and expenses. See Note 6 for further discussion.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

None

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

As of the end of the year covered by this report, we carried out an evaluation, under the supervision and with the participation of our Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), of the effectiveness of the design and operation of our disclosure controls and procedures as such term is defined in Rule 13a-15(e) or 15d-15(e) under the Exchange Act. Based on this evaluation, our CEO and CFO concluded that our disclosure controls and procedures are effective to ensure that information required to be disclosed by the Company in the reports that we file or submit under the Act is: (a) recorded, processed, summarized and reported, within the time periods specified in the Commission's rules and forms; and (b) accumulated and communicated to management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Management's Report on Internal Control Over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Exchange Act Rule 13a-15(f) or 15d-15(f). Under the supervision and with the participation of our management, including our CEO and CFO, we conducted an evaluation of the effectiveness of our internal control over financial reporting. Management has adopted the framework in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

We completed the Bisnode acquisition in January 2021 (see Note 16 to the Consolidated Financial Statements). The scope of management's assessment of the effectiveness of the Company's disclosure controls and procedures did not include the internal control over financial reporting of Bisnode in accordance with the SEC Staff's guidance companies are permitted to exclude acquisitions from their final assessment of internal control over financial reporting for the fiscal year in which the acquisition occurred. Due to the size, breadth and complexity of Bisnode's global operations, management's evaluation of internal control over financial reporting excluded the internal control activities of Bisnode. Bisnode represented less than 2% of total assets, excluding goodwill and intangible assets which are included within the scope of our assessment, and approximately 18% of total revenues included in the consolidated financial statements of the Company as of and for the year ended December 31, 2021.

Based on the results of our evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2021.

The effectiveness of our internal control over financial reporting as of December 31, 2021 has been audited by KPMG LLP, an independent registered public accounting firm, as stated in their report which is included herein.

Changes in Internal Control Over Financial Reporting

The Company is in the process of completing integrating policies, processes, people, technology and operations for the post-acquisition combined company, and it will continue to evaluate the impact of any related changes to internal controls, and will include Bisnode in its assessment of internal controls in 2022. Other than related to the Bisnode acquisition, there were no changes in our internal control over financial reporting that occurred during the twelve months ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None

Part III

Item 10-14.

Our board of directors has adopted a Code of Ethics for Senior Financial Officers, which is applicable to our Chief Executive Officer, our Chief Financial Officer and our Chief Accounting Officer, and a Code of Business Conduct and Ethics, which is applicable to all our directors, officers and employees. The purpose of these codes is to: (i) promote honest and ethical conduct, including the ethical handling of conflicts of interest; (ii) promote full, fair, accurate, timely and understandable disclosure; (iii) promote compliance with applicable laws and governmental rules and regulations; (iv) ensure the protection of our legitimate business interests, including corporate opportunities, assets and confidential information; and (v) deter wrongdoing. Our codes of ethics were adopted to reinvigorate and renew our commitment to our longstanding standards for ethical business practices. Our reputation for integrity is one of our most important assets and each of our employees and directors is expected to contribute to the care and preservation of that asset. Under our codes of ethics, an amendment to or a waiver or modification of any ethics policy applicable to our directors or executive officers must be disclosed to the extent required under SEC and/or NYSE rules. We intend to disclose any such amendment or waiver by posting it on the Investors page of our website at https://investor.dnb.com.

Our independent registered public accounting firm is KPMG LLP, New York, NY, Auditor Firm ID: 185.

Within 120 days after the close of our fiscal year, we intend to file with the SEC a definitive proxy statement pursuant to Regulation 14A of the Exchange Act, which will include the matters required by these items.

Part IV

Item 6. Exhibits and Financial Statement Schedules

(A) (1) *Financial Statements.* Our financial statements are listed in the "Dun & Bradstreet Holdings, Inc. Index to Financial Statements" under Item 8 of Part II of this Report.

(A) (2) *Financial Statement Schedules.* All financial statement schedules have been omitted because they are not required or are not applicable, or the required information is shown in our consolidated financial statements or the notes thereto.

(A) (3) *Exhibits.* Exhibits are included below:

Exhibit Number	Description
2.1	Agreement and Plan of Merger dated as of August 8, 2018, by and among The Dun & Bradstreet Corporation, Star Parent, L.P. and Star Merger Sub, Inc. (filed as Exhibit 2.1 to The Dun & Bradstreet Corporation's Current Report on Form 8- K filed on August 9, 2018) (SEC File No. 001-15967).*
3.1	Amended and Restated Certificate of Incorporation of Dun & Bradstreet Holdings, Inc., filed with the Secretary of State of the State of Delaware on July 2, 2020. (SEC File No. 001-39361)*
3.2	Amended and Restated Bylaws of Dun & Bradstreet Holdings, Inc., effective July 2, 2020 (SEC File No. 001-39361).*
4.1	Form of Common Stock Certificate (filed as Exhibit 4.1 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 26, 2020) (SEC File No. 333-239050).*
4.2	Letter Agreement regarding voting, dated as of June 30, 2020 (SEC File No. 001-39361).*
4.3	Registration Rights Agreement, dated July 6, 2020, by and among Dun & Bradstreet Holdings, Inc., Star Parent, L.P. and each of the persons listed on the signature pages thereto (SEC File No. 001-39361).*

4.4	Description of Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934 (SEC File No. 001-39361).*
10.1	Credit Agreement, dated February 8, 2019, among Star Merger Sub, Inc. (to be merged with and into The Dun & Bradstreet Corporation), Star Intermediate III, LLC and Bank of America, as Administrative Agent, Swing Line Lender and L/C Issuer, and the financial institutions party thereto, as Joint Lead Arrangers and Joint Bookrunners and as Senior Managing Agents (filed as Exhibit 10.1 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*
10.2	First Amendment to the Credit Agreement, dated as of February 10, 2020, to the Credit Agreement dated as of February 8, 2019, among The Dun & Bradstreet Corporation, Star Intermediate III, LLC and Bank of America, as Administrative Agent, Swing Line Lender and L/C Issuer, and the financial institutions party thereto (filed as Exhibit 10.2 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*
10.3	Amendment No. 2 to the Credit Agreement, dated as of September 11, 2020, by and among The Dun & Bradstreet Corporation, Star Intermediate III, LLC, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as Administrative Agent (filed as Exhibit 10.1 to the Current Report on Form 8-K filed by Dun & Bradstreet Holdings, Inc. on September 14, 2020) (SEC File No. 001-39361).*
10.4	Amendment No. 3 to the Credit Agreement, dated as of November 18, 2020, by and among The Dun & Bradstreet Corporation, Star Intermediate III, LLC, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as Administrative Agent (filed as Exhibit 10.1 to the Current Report on Form 8-K filed by Dun & Bradstreet Holdings, Inc. on November 19, 2020) (SEC File No. 001-39361).*
10.5	Amendment No. 4 to the Credit Agreement, dated as of January 27, 2021, by and among The Dun & Bradstreet Corporation, Star Intermediate III, LLC, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as Administrative Agent (filed as Exhibit 10.1 to the Current Report on Form 8-K filed by Dun & Bradstreet Holdings, Inc. on January 28, 2021) (SEC File No. 001-39361).*
10.6	Amendment No. 5 to the Credit Agreement, dated as of January 18, 2022, by and among The Dun & Bradstreet Corporation, Star Intermediate III, LLC, the guarantors party thereto, the lenders party thereto and Bank of America, N.A., as Administrative Agent (filed as Exhibit 10.1 to the Current Report on Form 8-K filed by Dun & Bradstreet Holdings, Inc. on January 18, 2022) (SEC File No. 001-39261).*
10.7	Indenture, dated December 20, 2021, by and among The Dun & Bradstreet Corporation, the guarantors party thereto and Wilmington Trust, National Association, as Trustee (filed as Exhibit 4.1 to the Current Report on Form 8-K filed by Dun & Bradstreet Holdings, Inc. on December 20, 2021) (SEC File No. 001-39261).*
10.8	Indenture governing Senior Secured Notes, dated February 8, 2019, among Star Merger Sub, Inc. (to be merged with and into The Dun & Bradstreet Corporation), the guarantors party thereto, and Wilmington Trust, National Association, as trustee and notes collateral agent (filed as Exhibit 10.3 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*
10.9	First Supplemental Indenture to the Indenture governing the Senior Secured Notes, dated as of February 8, 2019, by and among The Dun & Bradstreet Corporation, the guarantors party thereto and Wilmington Trust, National Association, as trustee and notes collateral agent (filed as Exhibit 10.4 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*

10.10	Second Supplemental Indenture to the Indenture governing the Senior Secured Notes, dated as of October 29, 2019, by and among The Dun & Bradstreet Corporation, Lattice Engine's, Inc. (as the guaranteeing entity) and Wilmington Trust, National Association, as trustee and notes collateral agent (filed as Exhibit 10.5 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*
10.11	Employment Agreement by and between Anthony M. Jabbour and The Dun & Bradstreet Corporation, dated February 8, 2019 (filed as Exhibit 10.9 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.12	Amendment to the Employment Agreement by and between Anthony M. Jabbour and The Dun & Bradstreet Corporation, dated as of June 18, 2020 (filed as Exhibit 10.10 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.13	Employment Agreement by and between Bryan T. Hipsher and The Dun & Bradstreet Corporation, dated February 8, 2019 (filed as Exhibit 10.13 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.14	Amendment to the Employment Agreement by and between Bryan T. Hipsher and The Dun & Bradstreet Corporation, dated as of June 18, 2020 (filed as Exhibit 10.14 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.15	Employment Agreement by and between Joe A. Reinhardt III and The Dun & Bradstreet Corporation, dated February 8, 2019 (filed as Exhibit 10.15 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.16	Amendment to the Employment Agreement by and between Joe A. Reinhardt III and The Dun & Bradstreet Corporation, dated as of June 18, 2020 (filed as Exhibit 10.16 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 24, 2020) (SEC File No. 333-239050).*†
10.17	2019 Long Term Incentive Plan for Executive Employees (filed as Exhibit 10.13 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*†
10.18	Cost Savings Achievement Plan (filed as Exhibit 10.15 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 9, 2020) (SEC File No. 333-239050).*†
10.19	Dun & Bradstreet 2020 Omnibus Incentive Plan (filed as Exhibit 99.1 to the Registration Statement on Form S-8 filed by Dun & Bradstreet Holdings, Inc. on July 2, 2020) (SEC File No. 333-239655).*†
10.20	Form of Grant Agreement for Performance and Time Based Restricted Stock Awards under the Agreement under Dun & Bradstreet 2020 Omnibus Plan (filed as Exhibit 10.20 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 26, 2020) (SEC File No. 333-239050).*†
10.21	Form of Grant Agreement for Time Based Restricted Stock Awards under the Agreement under Dun & Bradstreet 2020 Omnibus Plan (filed as Exhibit 10.21 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 26, 2020) (SEC File No. 333-239050)*†

10.22	Form of Grant Agreement for Stock Option Awards under the Agreement under Dun & Bradstreet 2020 Omnibus Plan (filed as Exhibit 10.22 to the Registration Statement on Form S-1 filed by Dun & Bradstreet Holdings, Inc. on June 26, 2020) (SEC File No. 333-239050).*†
10.23	Notice and Restricted Stock Award Agreement for 2021 Time-based and Performance-based Restricted Stock Awards (Executives)
10.24	Notice and Restricted Stock Award Agreement for 2021 Time-based Restricted Stock Awards (Directors)
10.25	Dun & Bradstreet Employee Stock Purchase Plan (filed as Exhibit 99.1 to the Registration Statement on Form S-8 filed by Dun & Bradstreet Holdings, Inc. on December 1, 2020) (SEC File No. 333-251049).*†
10.26	Services Agreement, dated as of February 8, 2019, among The Dun and Bradstreet Corporation, MVB Management, LLC, and THL Managers VIII, LLC (filed as Exhibit 10.1 to the Quarterly Report on Form 20-Q filed by Dun & Bradstreet Holdings, Inc. on August 6, 2020) (SEC File No. 001-39361).*
21.1	List of subsidiaries.
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
31.1	Certification of Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of Chief Executive Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
32.2	Certification of Chief Financial Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350.
101	The following materials from Dun & Bradstreet Holdings, Inc.'s Annual Report on Form 10-K for the year ended December 31, 2021, formatted in Inline Extensible Business Reporting Language (iXBRL): (i) the Consolidated Statement of Operations and Comprehensive Income (Loss), (ii) the Consolidated Balance Sheets, (iii) the Consolidated Statements of Cash Flows, (iv) the Consolidated Statements of Stockholder Equity (Deficit), and (v) the Notes to the Consolidated Financial Statements.
104	Cover Page Interactive Data File (embedded within the iXBRL document and contained in Exhibit 101)

* Incorporated reference.

† Management compensatory plan or arrangement.

Item 16. Form 10-K Summary

None

SIGNATURES

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

Dun & Bradstreet Holdings, Inc.

By: */s/ ANTHONY M. JABBOUR*

Anthony M. Jabbour

Chief Executive Officer

Date: February 24, 2022

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ ANTHONY M. JABBOUR **Anthony M. Jabbour**	**Chief Executive Officer and Director (Principal Executive Officer)**	**February 24, 2022**
/s/ BRYAN T. HIPSHER **Bryan T. Hipsher**	**Chief Financial Officer (Principal Financial Officer)**	**February 24, 2022**
/s/ ANTHONY PIETRONTONE **Anthony Pietrontone**	**Chief Accounting Officer (Principal Accounting Officer)**	**February 24, 2022**
/s/ WILLIAM P. FOLEY II **William P. Foley II**	**Chairman of the Board**	**February 24, 2022**
/s/ ELLEN R. ALEMANY **Ellen R. Alemany**	**Director**	**February 24, 2022**
/s/ DOUGLAS K. AMMERMAN **Douglas K. Ammerman**	**Director**	**February 24, 2022**
/s/ CHINH E. CHU **Chinh E. Chu**	**Director**	**February 24, 2022**
/s/ THOMAS M. HAGERTY **Thomas M. Hagerty**	**Director**	**February 24, 2022**
/s/ KEITH J. JACKSON **Keith J. Jackson**	**Director**	**February 24, 2022**
/s/ RICHARD N. MASSEY **Richard N. Massey**	**Director**	**February 24, 2022**
/s/ JAMES A. QUELLA **James A. Quella**	**Director**	**February 24, 2022**
/s/ GANESH B. RAO **Ganesh B. Rao**	**Director**	**February 24, 2022**

Corporate Information

dun & bradstreet

Board of Directors

William P. Foley, II
Executive Chairman
Dun & Bradstreet Holdings, Inc.

Anthony M. Jabbour
Chief Executive Officer
Dun & Bradstreet Holdings, Inc.

Ellen R. Alemany
Vice Chairwoman
First Citizens BancShares, Inc.
and First Citizens Bank

Douglas K. Ammerman
Retired
Partner KPMG

Chinh E. Chu
Founder and Managing Partner
CC Capital

Thomas M. Hagerty
Managing Director
Thomas H. Lee Partners, L.P.

Keith J. Jackson
President
Positive Atmosphere Reaches Kids

Richard N. Massey
Chief Executive Officer
Cannae Holdings, Inc.

James A. Quella
Senior Advisor
Blackstone

Ganesh B. Rao
Managing Director
Thomas H. Lee Partners, L.P.

Corporate Officers

Anthony M. Jabbour
Chief Executive Officer

Bryan T. Hipsher
Chief Financial Officer

Kevin Coop
President, North America

Neeraj Sahai
President, International

Joe A. Reinhardt III
Chief Legal Officer

Colleen E. Haley
Corporate Secretary

Anthony Pietrontone
Chief Accounting Officer

Corporate Office

Dun & Bradstreet Holdings, Inc.
5335 Gate Parkway
Jacksonville, FL 32256

www.dnb.com

Stock Transfer Agent and Registrar

Continental Stock Transfer
& Trust Company
1 State Street, 30th Floor
New York, NY 10004

(212) 509-4000

Independent Registered Public Accounting Firm

KPMG LLP
51 John F. Kennedy Parkway
Short Hills, NJ 07078

Stock Exchange Listing

The ticker symbol for Dun & Bradstreet Holdings, Inc. common stock is DNB, and it is listed on the New York Stock Exchange.

Publications

The Company's Annual Report on Form 10-K and Quarterly Reports on Form 10-Q are available on the Investor section of the Company's website at www.dnb.com.

A Notice of the Annual Meeting of Shareholders and Proxy Statement are furnished to shareholders in advance of the Annual Meeting.

Investor Relations

You can contact Dun & Bradstreet's Investor Relations department via email at IR@dnb.com or by phone (904) 648-8006.

Certifications

Dun & Bradstreet filed the Chief Executive Officer and Chief Financial Officer certifications required by Section 302 of the Sarbanes-Oxley Act of 2002 as exhibits to its Annual Report on Form 10-K for the year ended December 31, 2021.

dun & bradstreet

5335 Gate Parkway
Jacksonville, FL 32256

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