2021
ANNUAL REPORT

BLACK KNIGHT®

OUR MISSION

To be the **PREMIER PROVIDER** of software, data and analytics, known for **CLIENT FOCUS** and **PRODUCT EXCELLENCE;** and to deliver **INNOVATIVE**, seamlessly **INTEGRATED** solutions with **URGENCY.**

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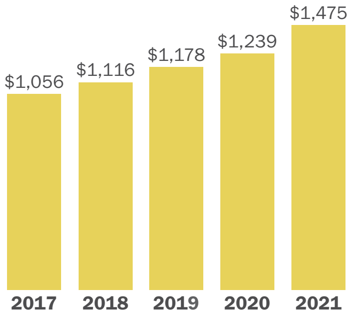
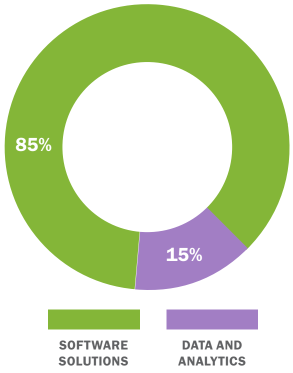
FINANCIAL HIGHLIGHTS

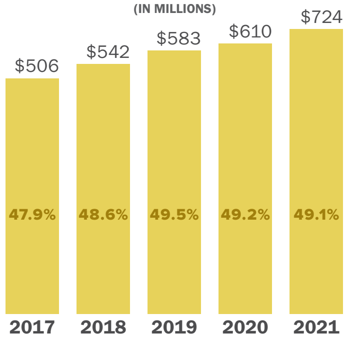
ADJUSTED REVENUES
(IN MILLIONS)



2021 REVENUES



ADJUSTED EBITDA
(IN MILLIONS)



(in millions, except per share data)	**2021**	**2020**	**2019**
Revenues	**$1,475.2**	$1,238.5	$1,177.2
Adjusted revenues[(1)]	**$1,475.2**	$1,238.9	$1,177.7
Earnings before equity in earnings (losses) of unconsolidated affiliates	**$177.3**	$178.7	$182.8
Net earnings	**$179.9**	$245.8	$108.8
Net earnings margin	**12.2%**	19.8%	9.2%
Net earnings attributable to Black Knight[(2)]	**$207.9**	$264.1	$108.8
Net earnings attributable to Black Knight, per diluted share[(2)]	**$1.33**	$1.73	$0.73
Adjusted net earnings[(1)]	**$371.5**	$322.3	$295.4
Adjusted EPS[(1)]	**$2.38**	$2.11	$1.99
Adjusted EBITDA[(1)]	**$724.2**	$609.9	$583.4
Adjusted EBITDA margin[(1)]	**49.1%**	49.2%	49.5%

(1) For a description and reconciliation of non-GAAP financial measures presented in this document, please see the Non-GAAP Financial Measures page, or visit the Black Knight Investor Relations website at **https://investor.blackknightinc.com**.

(2) In 2021, the effect of our investment in Dun & Bradstreet Holdings, Inc. ("DNB") was an increase in Net earnings attributable to Black Knight of $2.6 million, or $0.02 per diluted share, compared to $62.1 million, or $0.41 per diluted share, in 2020. In 2019, the effect of our investment in DNB was a reduction in Net earnings attributable to Black Knight of $73.9 million, or $0.50 per diluted share.

TO OUR VALUED SHAREHOLDERS

Anthony M. Jabbour
Chairman and Chief Executive Officer

Our company had an outstanding year in 2021, and to say I'm proud of our performance is a vast understatement. We continually acted with urgency to deliver premier solutions to our clients to help them achieve greater success. From a financial perspective, the year was nothing short of extraordinary; and from a sales perspective, we signed a record number of platform sales for our MSP® loan servicing system, Empower® loan origination system (LOS) and Optimal Blue℠ product, pricing and eligibility (PPE) engine.

We also had significant success cross-selling our integrated solutions, as a growing number of clients are realizing the value of working with a single, trusted vendor to support their business. In fact, we now have 28 enterprise clients – lenders and servicers that leverage multiple solutions across the loan life cycle to support end-to-end processes. One recent example is VyStar Credit Union, which selected the Empower LOS and MSP loan servicing system, as well as multiple other solutions, including end-to-end digital capabilities such as Borrower Digital℠, Servicing Digital℠, Loss Mitigation℠ and the Actionable Intelligence Platform℠.

We continued to execute on our long-term strategic initiatives in 2021 to drive growth by signing new clients, cross-selling to existing clients and delivering innovative solutions. We also acquired several companies that allowed us to further enhance our already-comprehensive offerings. These acquisitions provide the opportunity to integrate these companies' solutions with our existing offerings to create an even more powerful Black Knight ecosystem.

DELIVERING INNOVATIONS WITH URGENCY

The value our clients place on innovation is apparent in the adoption rates of the next-generation solutions we have delivered over the past few years, and 2021 was no exception. As an example, we launched our advanced, cloud-native Customer Service℠ solution for our servicing clients. This solution enables customer service representatives to view the same screens and information as the borrowers they're assisting so they can easily access all the relevant information they need to truly help their customers quickly and efficiently. And, because the solution is easy to use and sets customer service representatives up for success, it also supports employee satisfaction. We understand that retaining talent is a key challenge in today's economy, and thus our focus in delivering new innovations is twofold – to create a better experience for our clients and their borrowers.

With these goals in mind, we delivered – and continue to improve – loss mitigation and forbearance tools for borrowers through our Servicing Digital platform. These tools allow our clients the ability to proactively work with their customers to electronically offer the most appropriate loss mitigation workout options. As a result, consumers can request forbearance or workout plans directly through the Servicing Digital platform.

We added significant capabilities to this customer self-service tool to include the ability to track home care information, create schedules for regular home maintenance and store relevant details about a home. We also enabled connections to insurance companies so our clients' customers can browse and select insurance policies directly in Servicing Digital. Both Customer Service and Servicing Digital were developed with a cloud-first approach, so our clients can leverage our solutions in the environments that best meet their needs.

To make it easier for customers to make their mortgage payments, we've enabled connections to payment providers, such as Apple Pay, Google Pay and debit cards. These integrations are part of our larger strategy to allow our clients to provide their customers the ability to manage anything related to their home through Servicing Digital – a bold undertaking with the potential to pay great dividends in terms of customer experience.

For our lender clients, we launched the cloud-native Borrower Digital and Loan Officer Digital℠ solutions. Borrower Digital is our point-of-sale offering, which includes significant capabilities to upload documents and leverages artificial intelligence (AI) to review those documents and alert the borrower about any missing items. Loan Officer Digital allows loan officers to see what their customers are seeing, answer questions and discuss any issues along the way. To create a better customer and lender experience during the closing process, we introduced the Guided eClose℠ solution. This web-based solution electronically guides borrowers through the closing process, saving time and reducing complexity for the homeowner, while improving the overall closing experience.

We also continue to develop and enhance our cloud-based AIVA® solution. Lenders are realizing increased efficiencies from this AI technology, which has sparked growing client adoption. Lenders can use these AI technologies to assist with otherwise-manual tasks, such as document classification and data extraction. Our Underwriter Assist℠ solution is a prime example of how our leading-edge technologies leverage AI to boost efficiency.

To further enhance the value of our Empower LOS and leverage the strength of the solutions in the Black Knight ecosystem, we integrated the LOS for retail lending with the market-leading Optimal Blue PPE. Our origination clients benefit from this seamless integration, which results in lower costs per loan and an improved customer experience.

EXPANDING CAPABILITIES THROUGH ACQUISITIONS AND INTEGRATIONS

In addition to developing innovative solutions, we also made strategic acquisitions that will create incremental benefits for our clients. We integrate these companies and their solutions into the Black Knight ecosystem to provide premier, end-to-end technology, data and analytics to our clients.

In 2021, we completed three acquisitions. We acquired eMBS, which provides performance data and analytics on agency-backed securities to market participants; a broker-specific LOS from NexSpring Financial; and Top of Mind Networks, which includes the mortgage-industry-specific Surefire℠ CRM (customer relationship management) and marketing automation platform. Throughout the year, we integrated these acquisitions into our already-robust solutions to amplify the power of the Black Knight ecosystem.

INNOVATION

INTEGRATION

URGENCY

For the growing broker market, we introduced LoanCatcher℠, a cloud-based LOS platform designed specifically for mortgage brokers. Built on the technology acquired from NexSpring, we enhanced the LOS with additional features and an improved user experience. We then integrated LoanCatcher with our Surefire platform and Loansifter℠, our broker-specific PPE, to deliver a comprehensive LOS for this growing market.

Additionally, Servicing Digital is now connected with our Collateral Analytics automated valuation models (AVMs) so homeowners can benefit from the most accurate AVMs available. We also integrated our Optimal Blue PPE with Servicing Digital – so that customers considering refinancing or purchasing a new or second home can see personalized mortgage offers.

INNOVATING FOR THE FUTURE

Thanks to the strong and trusted relationships we've built with our talented and extensive client base, we can share ideas and identify solutions that will help propel them toward greater success. The strength of our company enables us to continually invest in developing new innovative solutions and integrating them into the broader Black Knight ecosystem with urgency. With every solution we deliver, we enhance our cross-sell opportunities and add exponential value to our clients' operations. As we move into 2022, we will continue to execute on our strategic initiatives with an unwavering commitment to enhancing value for all stakeholders.

Anthony

Anthony M. Jabbour
Chairman and Chief Executive Officer

NON-GAAP FINANCIAL MEASURES

RECONCILIATION OF REVENUES TO ADJUSTED REVENUES

($ in millions)	Year Ended 2021	2020	2019	2018	2017
Revenues	**$1,475.2**	**$1,238.5**	**$1,177.2**	**$1,114.0**	**$1,051.6**
Deferred revenue purchase accounting adjustment	-	0.4	0.5	2.5	4.5
Adjusted revenues	**$1,475.2**	**$1,238.9**	**$1,177.7**	**$1,116.5**	**$1,056.1**

RECONCILIATION OF NET EARNINGS TO ADJUSTED EBITDA

($ in millions)	Year Ended 2021	2020	2019	2018	2017
Net earnings attributable to Black Knight	**$207.9**	**$264.1**	**$108.8**	**$168.5**	**$182.3**
Depreciation and amortization	365.0	270.7	236.2	217.0	206.5
Interest expense, net	83.6	62.9	63.5	51.7	57.5
Income tax expense (benefit)	35.7	41.6	41.9	37.7	(61.8)
Other expense (income), net	6.4	(16.4)	1.4	7.1	12.6
Equity in (earnings) losses of unconsolidated affiliates, net of tax	(2.6)	(62.1)	74.0	—	—
Gain on sale of investment in unconsolidated affiliate, net of tax	—	(5.0)	—	—	—
Net losses attributable to redeemable noncontrolling interests	(28.0)	(18.3)	—	—	—
Net earnings attributable to noncontrolling interests	—	—	—	—	71.9
EBITDA	**668.0**	**537.5**	**525.8**	**482.0**	**469.0**
Deferred revenue purchase accounting adjustment	—	0.4	0.5	2.5	4.5
Equity-based compensation	42.9	40.6	51.7	51.4	19.2
Debt and/or equity offering expenses	—	0.1	—	0.7	7.5
Spin-off-related transition costs	—	—	—	2.2	5.6
Acquisition-related costs	8.0	26.1	3.8	1.3	—
Expense reduction initiatives	5.3	5.2	1.6	—	—
Executive transition costs	—	—	—	2.4	—
Adjusted EBITDA	**$724.2**	**$609.9**	**$583.4**	**$542.5**	**$505.8**
Net earnings margin	12.2%	19.8%	9.2%	15.1%	24.2%
Adjusted EBITDA margin	49.1%	49.2%	49.5%	48.6%	47.9%

RECONCILIATION OF NET EARNINGS TO ADJUSTED NET EARNINGS

($ in millions, except per share data)	Year Ended 2021	2020	2019
Net earnings attributable to Black Knight	**$207.9**	**$264.1**	**$108.8**
Equity in (earnings) losses of unconsolidated affiliates, net of tax	(2.6)	(62.1)	74.0
Gain on sale of investment in unconsolidated affiliate, net of tax	—	(5.0)	—
Depreciation and amortization purchase accounting adjustment	219.0	135.4	97.4
Deferred revenue purchase accounting adjustment	—	0.4	0.5
Equity-based compensation	42.9	40.6	51.7
Debt and/or equity offering expenses	2.3	0.1	—
Acquisition-related costs	8.0	26.1	3.8
Expense reduction initiatives	5.3	5.2	1.6
Legal matters	4.2	(16.2)	1.5
Income tax expense adjustment	(67.4)	(43.9)	(43.9)
Redeemable noncontrolling interests adjustment	(48.1)	(22.4)	—
Adjusted net earnings	**$371.5**	**$322.3**	**$295.4**
Adjusted EPS	$2.38	$2.11	$1.99
Weighted average shares outstanding, diluted	155.8	152.9	148.6

Adjusted revenues – We define Adjusted revenues as Revenues adjusted to include the revenues that were not recorded by Black Knight during the periods presented due to the deferred revenue purchase accounting adjustment recorded in accordance with GAAP. These adjustments are reflected in Corporate and Other.

Adjusted EBITDA – We define Adjusted EBITDA as Net earnings attributable to Black Knight, with adjustments to reflect the addition or elimination of certain statement of earnings items including, but not limited to (i) Depreciation and amortization; (ii) Impairment charges; (iii) Interest expense, net; (iv) Income tax expense (benefit); (v) Other expense (income), net; (vi) Equity in (earnings) losses of unconsolidated affiliates, net of tax; (vii) (Gains) losses on sale of investments in unconsolidated affiliate, net of tax; (viii) Net earnings (losses) attributable to redeemable noncontrolling interests; (ix) deferred revenue purchase accounting adjustment; (x) equity-based compensation, including certain related payroll taxes; (xi) costs associated with debt and/or equity offerings, including the spin-off of Black Knight from Fidelity National Financial, Inc. ("FNF") (the "Distribution"); (xii) spin-off-related transition costs; (xiii) acquisition-related costs, including costs pursuant to purchase agreements; (xiv) costs associated with expense reduction initiatives; and (xv) costs associated with executive transition. Prior to the Distribution, Adjusted EBITDA also includes an adjustment for Net earnings attributable to noncontrolling interests. These adjustments are reflected in Corporate and Other.

Adjusted EBITDA margin – Adjusted EBITDA margin is calculated by dividing Adjusted EBITDA by Adjusted revenues.

Adjusted net earnings – We define Adjusted net earnings as Net earnings attributable to Black Knight with adjustments to reflect the addition or elimination of certain statement of earnings items including, but not limited to (i) equity in (earnings) losses of unconsolidated affiliates, net of tax; (ii) (gains) losses on sale of investments in unconsolidated affiliate, net of tax; (iii) the net incremental depreciation and amortization adjustments associated with the application of purchase accounting; (iv) deferred revenue purchase accounting adjustment; (v) equity-based compensation, including certain related payroll taxes; (vi) costs associated with debt and/or equity offerings, including the Distribution; (vii) acquisition-related costs, including costs pursuant to purchase agreements; (viii) costs associated with expense reduction initiatives; (ix) costs and settlement (gains) losses associated with significant legal matters; (x) adjustment for income tax expense primarily related to the tax effect of the non-GAAP adjustments; and (xi) adjustment for redeemable noncontrolling interests primarily related to the effect of the non-GAAP adjustments.

Adjusted EPS – Adjusted EPS is calculated by dividing Adjusted net earnings by the diluted weighted average shares of common stock outstanding.

INFORMATION

BOARD OF DIRECTORS

Anthony M. Jabbour
Chairman and CEO
Black Knight, Inc.

Catherine L. Burke
Chief Strategy Officer
Daniel J. Edelman Holdings, Inc.

Thomas M. Hagerty
Managing Director
Thomas H. Lee Partners, L.P.

David K. Hunt
Private Investor

Joseph M. Otting
Private Investor

Ganesh B. Rao
Managing Director
Thomas H. Lee Partners, L.P.

John D. Rood
Chairman
The Vestcor Companies, Inc.

Nancy L. Shanik
Private Investor

William P. Foley, II*
Chairman Emeritus
Black Knight, Inc.

*Mr. Foley retired from the Black Knight board of directors when his term ended at the Company's 2021 Annual Meeting of Shareholders.

COMMITTEE COMPOSITION	Audit	Compensation	Nominating and Governance	Risk
Catherine L. Burke			Member	
Thomas M. Hagerty*		Chairperson	Member	
David K. Hunt		Member	Chairperson	Member
Joseph M. Otting	Chairperson			
Ganesh B. Rao				Member
John D. Rood	Member			Chairperson
Nancy L. Shanik	Member			

MEMBER **CHAIRPERSON** *** INDEPENDENT LEAD DIRECTOR**

CORPORATE OFFICERS*

Anthony M. Jabbour
Chairman and Chief Executive Officer

Joseph M. Nackashi
President

Kirk T. Larsen
Executive Vice President and Chief Financial Officer

Michael L. Gravelle
Executive Vice President and General Counsel

Colleen E. Haley
Corporate Secretary

*On Feb. 15, 2022, Black Knight announced an upcoming executive management transition where Anthony Jabbour will assume the role of Executive Chairman of the Board; Joe Nackashi will assume the role of Chief Executive Officer; and Kirk Larsen will assume the role of President and Chief Financial Officer. These new appointments are effective May 16, 2022.

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COMPANY AND SHAREHOLDER INFORMATION

CORPORATE OFFICE

Black Knight, Inc.
601 Riverside Avenue
Jacksonville, FL 32204

BlackKnightInc.com

STOCK TRANSFER AGENT AND REGISTRAR

Continental Stock Transfer and Trust Company
1 State Street
New York, NY 10004

(212) 509-4000

INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

KPMG LLP
501 Riverside Avenue, Suite 500
Jacksonville, FL 32202

STOCK EXCHANGE LISTING

The ticker symbol for Black Knight, Inc. common stock is BKI, 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 Investors section of the Company's website at BlackKnightInc.com.

A Notice of Annual Meeting of Shareholders and Proxy Statement are furnished to shareholders in advance of the Annual Meeting.

INVESTOR RELATIONS

Please visit the Contact Investor Relations section of Black Knight's Investors website at BlackKnightInc.com to submit a question or request to the Investor Relations department.

You can also contact Black Knight's Investor Relations department via email at investor@BKFS.com or by phone at 904.854.3683.

CERTIFICATIONS

Black Knight 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.

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 No. 001-37394

Black Knight, Inc.

(Exact name of registrant as specified in its charter)

Delaware	81-5265638
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*
601 Riverside Avenue, Jacksonville, Florida	32204
(Address of principal executive offices)	*(Zip Code)*

(904) 854-5100

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

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

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

If an emerging growth company, indicate by check mark if the registrant has elected 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 Black Knight, Inc. common stock held by non-affiliates of the registrant as of June 30, 2021 was $11,775,147,813 based on the closing price of $77.98 as reported by the New York Stock Exchange.

As of February 24, 2022, there were 155,282,790 shares of Black Knight, Inc. common stock outstanding.

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.

BLACK KNIGHT, INC.
FORM 10-K
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Statement Regarding Forward-Looking Information

The statements contained in this Annual Report on Form 10-K or in our other documents or in oral presentations or other statements made by our management that are not purely historical are forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), including statements regarding our expectations, hopes, intentions or strategies regarding the future. These statements relate to, among other things, future financial and operating results of Black Knight. In many cases, you can identify forward-looking statements by terminology such as "may," "will," "should," "expect," "plan," "anticipate," "believe," "estimate," "predict," "could," "potential" or "continue," or the negative of these terms and other comparable terminology. Actual results could differ materially from those anticipated in these statements as a result of a number of factors, including, but not limited to the following:

- security breaches against our information systems or breaches involving our third-party vendors;
- changes to our relationships with our top clients, whom we rely on for a significant portion of our revenues and profit;
- limitation of our growth due to the time and expense associated with switching from competitors' software and services;
- our ability to meet our contractual commitments and to offer high-quality technical support services;
- our ability to comply with or changes in laws, rules and regulations that affect our and our clients' businesses;
- consolidation in our end client market;
- regulatory developments with respect to use of consumer data and public records;
- efforts by the government to address the mortgage market and economic environment;
- our clients' relationships with government-sponsored enterprises;
- our ability to adapt our solutions to technological changes or evolving industry standards or to achieve our growth strategies;
- our ability to compete effectively;
- risks associated with the recruitment and retention of our skilled workforce;
- changes in general economic, business, regulatory and political conditions, including those resulting from pandemics such as COVID-19, particularly as they affect foreclosures and the mortgage industry;
- impacts to our business operations caused by the occurrence of a catastrophe or global crisis, including the spread of COVID-19 variants;
- increase in the availability of free or relatively inexpensive information;
- our ability to protect our proprietary software and information rights;
- infringement on the proprietary rights of others by our applications or services;
- our ability to successfully consummate, integrate and achieve the intended benefits of acquisitions;
- our reliance on third parties;
- our dependence on our ability to access data from external sources;
- our international operations and third-party service providers;
- our investment in Dun & Bradstreet Holdings, Inc. ("DNB");
- system failures or service interruptions;
- delays or difficulty in developing or implementing new, enhanced or existing mortgage processing or software solutions;
- change in the strength of the economy and housing market generally;
- our existing indebtedness and any additional significant debt we incur;
- change in London Interbank Offered Rate ("LIBOR") reporting practices and the replacement of LIBOR with an alternative reference rate;
- the adequacy of our policies and procedures;
- litigation, investigations or other actions against us;
- the market price of our common stock may be volatile;
- our charter and bylaws and provisions of Delaware law may discourage or prevent strategic transactions;
- our intention not to pay dividends on our common stock for the foreseeable future; and

- restrictions on our ability to pursue potential business opportunities under a non-competition agreement with Fidelity National Financial, Inc. and its subsidiaries ("FNF") that we entered in connection with the spin-off from FNF (the "Distribution").

See "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*

Except as otherwise indicated or unless the context otherwise requires, all references to "Black Knight," the "Company," "we," "us" or "our" are to Black Knight, Inc., a Delaware corporation, and its subsidiaries ("BKI").

Overview

Black Knight is a premier provider of integrated, innovative, mission-critical, high-performance software solutions, data and analytics to the U.S. mortgage and real estate markets. Our mission is to transform the markets we serve by delivering innovative solutions that are integrated across the homeownership lifecycle and that result in realized efficiencies, reduced risk and new opportunities for our clients to help them achieve greater levels of success.

Innovation. Integration. Urgency. Whether developing new solutions, integrating new and acquired solutions or responding to our client's requests – we do everything with urgency. It is why we are a trusted partner and leading provider of software solutions, data and analytics to the mortgage and real estate markets.

We believe businesses leverage our robust, integrated solutions across the entire homeownership lifecycle to help retain existing clients, gain new clients, mitigate risk and operate more efficiently. Our clients rely on our proven, comprehensive, scalable solutions and our unwavering commitment to delivering exceptional client support to achieve their strategic goals and better serve their customers.

We have a focused strategy of continuous innovation across our business supported by strategic acquisitions – and even more importantly, the integration of those innovations and acquisitions into our broader ecosystem. Our scale allows us to continually invest in our business, both to meet ever-changing industry requirements and to maintain our position as a leading provider of platforms for the mortgage and real estate markets.

Deep business and regulatory expertise and an unparalleled, holistic view of the markets we serve allow us the privilege of being a trusted advisor to our clients, who range from the nation's largest lenders and mortgage servicers to institutional portfolio managers and government entities, to individual real estate agents and mortgage brokers. Clients leverage our software ecosystem across a range of real estate and housing finance verticals through multiple digital channels, using our offerings to drive more business, reduce risk and deliver a best-in-class customer experience, all while operating more efficiently and cost-effectively.

We have long-standing relationships with our clients – a majority of whom enter into long-term contracts that include multiple, integrated products embedded into mission-critical, client-side workflow and decision processes. This speaks to the confidence our clients, which include some of the largest financial institutions in the world, have in our solutions and our commitment to serve them. The contractual nature of our revenues and stickiness of our client relationships make our revenues both highly visible and recurring in nature. Our scale and integrated ecosystem of solutions drive significant operating leverage and cross-sell opportunities, enabling our clients to continually benefit from new and greater operational efficiencies while simultaneously allowing us to generate strong margins and cash flows.

Overview of the Markets We Serve

The Black Knight ecosystem stretches across four core "pillar" verticals: mortgage loan servicing, mortgage origination, capital markets and real estate; with our data and analytics flowing throughout and between the interconnected ecosystem of solutions. As we integrate our innovations and acquired technologies, we are committed to continually improving the end consumer experience, driving further efficiencies for our clients and helping them to win new customers and retain existing customers.

Mortgage Loan Servicing

Once mortgage loans have been originated, the loans are onboarded to a servicing platform for servicers to manage the loan as well as borrower and investor relationships. Mortgage servicers (and sub-servicers) operate within a highly regulated industry segment and are responsible for overseeing the ongoing loan maintenance, payment collection and application process, escrow management, investor management, tax and insurance payments, etc. for approximately 65 million active first and second lien mortgage loans and lines of credit in the U.S. Mortgage servicing typically creates a long-term relationship between the customer and the servicer; however, the customer's servicing experience can have a direct impact on the servicer's ability to retain loans in their portfolios when faced with refinance prepayment risk.

As an industry segment, the number of first lien mortgage loans being serviced in the U.S. remains relatively consistent even through housing and economic downturns. The number of second lien mortgage loans being serviced can fluctuate according to factors such as available, or "tappable," equity levels, interest rates and individual portfolio appetite for such loans.

The table below summarizes market data for active first and second lien mortgage loans (in millions):

	2021
First lien(1)	53.2
Second lien(2)	12.2
Total	65.4

(1) Estimates according to the Black Knight Mortgage Monitor Reports as of December 31, 2021 for U.S. first lien mortgage loans. These estimates are subject to change.
(2) Estimates according to the January 2022 Equifax National Consumer Credit Trends Reports as of December 2021 for U.S. second lien mortgage loans. These estimates are subject to revision.

In times of economic stress, a servicers' ability to manage their workload is often tested by distressed mortgages, defaults, foreclosure and bankruptcy actions. In such periods, loss mitigation, default processing, bankruptcy and more must be contended with, along with an ever-changing slate of regulatory requirements. The mortgage default process is long and complex and involves multiple parties, a significant exchange of data and documentation and extensive regulatory requirements. Technology is essential in navigating this process efficiently and effectively.

The recent flood of COVID-19-related forbearance plans – and subsequent loss mitigation workouts – serves as a current example of fluctuating challenges the sector has faced and to which it has adapted via the expeditious deployment of software solutions, data and analytics.

Mortgage Origination

Mortgage lending is a complex process with multiple stages involving various parties, all of which are under increased regulatory scrutiny. Historically, many aspects of this process have been managed manually by lenders and other parties involved in the process, increasing the cost and complexity to originate a loan. The shift of consumer expectations and demands resulting from the pandemic have accelerated the pace of innovation and acceptance of digital technologies to meet the needs of market participants.

The U.S. mortgage origination market consists of both purchase and refinance loans, including cash-out refinances and – to a lesser extent – second lien, equity-centric products such as home equity lines of credit ("HELOCs"). Participants in this market range from the largest U.S. banks, nonbanks and credit-union lenders; to independent and mid-sized banks; to wholesale and correspondent lenders; to mortgage brokerages and even the individual mortgage broker.

The table below summarizes origination market estimates from the Mortgage Bankers Association ("MBA"), Federal National Mortgage Association ("FNMA") and Federal Home Loan Mortgage Corporation ("FHLMC") (in billions):

	2021	2020	2019
Mortgage loan originations:			
Purchase	$ 1,646	$ 1,482	$ 1,272
Refinance	2,345	2,625	901
Total - MBA(1)	$ 3,991	$ 4,108	$ 2,173
Purchase	$ 1,861	$ 1,572	$ 1,326
Refinance	2,576	2,802	1,136
Total - FNMA(2)	$ 4,437	$ 4,374	$ 2,462
Purchase	$ 1,906	$ 1,587	$ 1,303
Refinance	2,745	2,853	1,130
Total - FHLMC(3)	$ 4,651	$ 4,441	$ 2,432

Note: Amounts may not recalculate due to rounding.

(1) The U.S. mortgage loan origination market for purchase and refinance originations is estimated by the MBA Mortgage Finance Forecast as of January 21, 2022. These estimates are subject to future revisions.

(2) The U.S. mortgage loan origination market for purchase and refinance originations is estimated by the FNMA Housing Forecast as of January 2022. These estimates are subject to future revisions.

(3) The U.S. mortgage loan origination market for purchase and refinance originations is estimated by the FHLMC Economic and Housing Market Outlook as of January 7, 2022. These estimates are subject to future revisions.

Capital Markets

The mortgage capital markets, both primary and secondary, play a critical role as providers of funding and liquidity that enable lenders to make home loans to borrowers. Mortgage loans are made possible in large part by market participants buying, selling or holding mortgage-backed securities (“MBS”) and loan portfolios.

Preeminent among capital market participants are the government-sponsored enterprises (“GSEs”), the Federal National Mortgage Association (“FNMA” or “Fannie Mae”) and the Federal Home Loan Mortgage Corporation (“FHLMC” or “Freddie Mac”), who, along with the Government National Mortgage Association (“GNMA” or “Ginnie Mae”), the Federal Housing Administration (“FHA”) and the Veterans Administration (“VA”), provide back-stop guarantees to support market stability and help minimize systemic risk.

Market oversight is performed by federal and state regulators with the Federal Reserve, the Securities and Exchange Commission (“SEC”), the Federal Finance Housing Agency (“FHFA”), the Office of the Comptroller of the Currency (“OCC”) and the Consumer Financial Protection Board (“CFPB”) all playing major roles in ensuring market transparency, financial institution safety and soundness and consumer protection.

The informed investment in and trading of mortgage loans and MBS is dependent upon reliable, quality data – at both the pool and loan level – plus robust analytics and the tools to use them effectively. An incredible amount of information gathering and assessing goes into making these investment decisions. Dealing with pools or portfolios of real estate or mortgage-related assets requires even more information. Loan-level mortgage performance, real estate price trends and credit-risk data are valuable and necessary insights needed by capital market participants to make informed decisions.

In the age of “big data,” this level of detailed information equates to many terabytes of data points, which can be an overwhelming amount of data to shift through and analyze without the right tools and solutions; however, that data can provide critical insights for those who can effectively decipher it.

Real Estate

The consumer journey to homeownership starts with identifying a property to purchase. The marketing, sales and purchase of real estate in the U.S. involves many participants. Black Knight supports all participants in this process with technology to increase efficiencies, create new opportunities, manage complex workflows and help improve margins for all involved.

Needs exist for digital workflow, seamless data transfer between multiple sources and parties, and marketing and communication tools at the agent, broker and multiple listing service ("MLS") levels.

Market Trends

Market trends that have spurred lenders and servicers to seek software, data and analytics solutions are as follows:

Integral role of technology in the U.S. mortgage market. As consumer expectations help drive a more digital homebuying process, lenders and servicers have become increasingly focused on automation, workflow management and the overall customer experience. Operating more efficiently has gone beyond a business optimization goal and become critical to maintaining a competitive edge. With growing frequency, new and important industry-specific AI applications, robotic process automation and adaptive learning are being developed and deployed, producing significant benefits along the real estate and mortgage continuum.

For market participants to effectively manage the complex and dynamic nature of the U.S. housing market, they need technology providers who are nimble but scalable, possess deep industry knowledge and expertise and the financial resources to make necessary ongoing investments in innovation to support lenders, servicers and other market participants. Industry expertise paired with technological innovation and market penetration is key to continued digital transformation of the mortgage industry, as well as realization of a fully digital, end-to-end real estate transaction.

Heightened demand for enhanced transparency and analytic insight. As the U.S. mortgage market works to continue minimizing risk while maximizing opportunities in lending, servicing and capital markets, solutions with integrated data and analytics enhance and inform the decision-making process. Industry participants rely on large comprehensive third-party databases coupled with enhanced analytics to achieve these goals.

As conditions can shift rapidly, sometimes daily, market participants are eager for more timely data and insights to help them plan proactively and react nimbly to these changes. We have seen our clients embrace a shift to "near real-time" daily market data around key metrics, cognizant of the urgency current market conditions require.

Regulatory changes and oversight. The U.S. mortgage industry is subject to a particularly high level of governmental oversight and a correspondingly large number of regulatory requirements. The complexity of these guidelines increases over time as federal and state governments enact and change various new laws, rules and regulations. We expect this trend to continue as additional governmental programs and regulations have been enacted to address the economic concerns resulting from the pandemic, and our clients have had to adapt their systems and processes in record time to the shifting landscape.

It is our experience that lenders, servicers and other market participants have a strong focus on minimizing compliance risk and are looking for solutions that can systematically assist them in meeting applicable regulatory requirements. In addition, our clients and their regulators have elevated their focus on privacy and data security in light of an increased level of cybersecurity incidents. We expect the industry focus on privacy and data security to continue to increase.

Lenders increasingly focused on core operations. We believe lenders will become more focused on their core operations and customers as refinance origination volumes decline due to a rising interest rate environment. In an effort to reduce origination costs, we believe lenders are increasingly shifting from in-house solutions to third-party solutions that provide a more comprehensive and efficient solution. Lenders require these providers to deliver best-in-class solutions and deep domain expertise and to assist them in maintaining regulatory compliance.

Solutions for the Markets We Serve

Our business is organized into two segments: Software Solutions and Data and Analytics. Together they represent an integrated ecosystem that spans the entirety of the real estate and mortgage continuum, from homebuying and selling to loan origination, through loan servicing and capital markets and back again.

The Black Knight ecosystem lets clients access a comprehensive, integrated software and workflow management solution set via multiple segment-specific digital channels. Enhanced by massive mortgage-specific datasets and robust proprietary analytics, our ecosystem helps our clients achieve greater levels of success from a trusted provider that continually delivers innovative technologies across our ecosystem.

Software Solutions

Our Software Solutions segment includes proven and trusted platforms that facilitate, automate and enhance many mission-critical business processes across the real estate and mortgage continuum. Our offerings help clients in this segment – primarily mortgage lenders, servicers and investors – reduce costs, improve operations and provide an exceptional customer experience. Our software solutions are developed to meet the current and future needs of the markets we serve. In developing and delivering our products and solutions, we leverage any combination of private cloud, public cloud, application programming interfaces ("APIs") and a host of other technology-forward approaches to best meet the needs of our vast and strong client base.

Servicing Software Solutions

Servicing is where the success or failure of the long-term customer relationship is truly determined.

MSP® is a SaaS solution that supports first lien mortgages, as well as home equity loans and lines of credit, on a single platform. This complete, scalable, end-to-end system is used by financial institutions to manage all servicing processes, including loan setup and maintenance, escrow administration, investor reporting, regulatory requirements and more. MSP® helps servicers increase efficiency, reduce operating costs and improve risk mitigation for approximately 36 million active loans currently serviced on the system.

As a result of our leadership, combined with our extensive knowledge of the mortgage industry and technology, we are uniquely positioned to drive innovation in this space and bring the digital revolution to mortgage servicing for both borrowers and servicers alike. While we relentlessly pursue the enhancement of the consumer experience throughout the real estate and mortgage continuum, we are equally focused on innovating on the back end for servicers as well.

MSP® serves as the core system of record and is enhanced with innovative digital solutions, all of which were developed using the most appropriate, forward-leaning technologies and are seamlessly integrated into the system of record. Servicing Digital℠ has seen tremendous adoption since its launch in 2018, with roughly three-quarters of MSP® clients now offering the white-labeled, consumer facing application to their customers.

Servicing Digital℠ is an interactive, user-friendly web and mobile solution for consumers that provides easy access to customized, timely information about their mortgages. This powerful application supports deeper customer relationships for our clients and engagement by enabling their customers to make mortgage payments and explore opportunities for refinancing and more – all from the convenience of the web or a mobile device. By providing value-added services and information to borrowers, Servicing Digital℠ helps improve customer retention and serves as a direct communication channel between servicer and borrower.

Servicing Digital℠ is integrated with Black Knight's Customer Service solution, which allows our clients' customer service representatives to have access to the same information and layout a customer sees to better facilitate successful interactions and outcomes, which is key to increasing borrower retention.

Black Knight also offers an advanced Loss Mitigation℠ solution to facilitate more efficient loss mitigation processes. This feature-rich, web-based solution supports industry-standard retention and liquidation workouts to streamline the loss mitigation process and reduce risk. It is also available to consumers through Servicing Digital℠ and uses advanced rules and logic to guide users through processes step-by-step, including validation points throughout the workflow, to reduce missed steps and overlooked information. When loans move through the loss-mitigation process and become non-performing loans, Black Knight's suite of innovative default servicing solutions help servicers reduce cycle times, decrease operating costs and improve efficiencies throughout the bankruptcy, foreclosure and claims stages.

Origination Software Solutions

Our Empower® loan origination system ("LOS") was developed to be hosted in a public or private cloud or on premise in our secure data centers, based on client preference. The platform's advanced automation capabilities, lights-out processing and seamless integrations with other Black Knight and third-party services help fulfill, streamline and improve upon the many pieces of the origination process. Integrated pipeline analytics, AI-powered underwriter efficiency tools, fee services, settlement services fulfillment, an advanced eClosing platform and more all combine to create a frictionless process that benefits both borrower and lender alike. In recognition of the dynamic nature of modern mortgage markets, Empower® offers maximum flexibility: giving lenders the ability to originate first lien mortgages, second lien equity loans and HELOCs on a single, unified platform.

Our Borrower Digital solution enables lenders to offer our AI-enhanced digital point of sale to walk their loan applicants through a friendly and intuitive prequalification/qualification Q&A, with seamless data transfer to lender systems. Customer engagement is active, immediate and targeted, and presents a smooth front-end to a process that will carry the loan applicant – and a single source/repository of their data – all the way through to closing and beyond. We also drive the full origination and underwriting workflow for lenders of all sizes via our Empower® LOS.

Additionally, Black Knight's digital loan officer technology makes the day-to-day lives of loan officers more productive through vastly simplified workflows while also helping them provide an exceptional level of service to loan applicants. With the same anytime, anywhere convenience provided by all of our consumer-facing digital products, Loan Officer Digital facilitates seamless interaction between the loan officer and loan applicant throughout the entire process, from application to close. With the loan applicant engaged via the Borrower Digital interface, Loan Officer Digital enables loan officers to remain connected with their customers, providing timely updates and assistance when needed. Again, all data is captured and can be shared with our Empower® LOS.

After loan approval, loan applicants can view their loan status, review their closing package and eSign documents using our Expedite® Close solution. Loan applicants can also leverage our DocVerify remote online notarization solution, making fully digital closings possible where legally permissible, with all activity tracked and logged for audit purposes.

For clients using both Empower® and MSP®, onboarding funded loans to the servicing system is seamless and instantaneous.

Recent trends show that consumers have been turning to mortgage brokers more often than before. Our LoanCatcher℠ cloud-based LOS, designed specifically for the needs of brokers, is both innovative and easy-to-use. It gives brokers affordable access to a robust software solution, integrated with the data and customer support solutions they need to provide exceptional levels of service to their customers.

In support of our mantra of integration - LoanCatcher^{SM} is integrated with our LoanSifter PPE – also designed to meet the very specific needs of the broker community by providing access to hundreds of investors and thousands of loan products. All of this combined with system-agnostic delivery to whatever LOS their wholesale lender partners are using provides brokers with a truly end-to-end solution to manage and grow their businesses.

Data and Analytics

Our Data and Analytics segment is comprised of our extensive data offerings, proven credit and prepayment models, custom and proprietary analytics, valuation, title and MLS solutions and much more. In addition, the integration of data and insights from solutions in this segment informs, supports and enhances our other software solutions to help lenders and servicers make more informed decisions, improve performance, identify and predict risk and generate more qualified leads.

We have aggregated one of the largest residential real estate data sets available. This data set is derived from both proprietary and public record sources. From nationwide MLS listings to our industry-leading McDash^{SM} loan-level mortgage loan performance data, to public property records covering more than 99.9% of the U.S. population, Black Knight's datasets are indispensable for those working with housing assets.

Leveraging this data – subject to any applicable restrictions – alongside our long history and deep understanding of the housing market, we have created detailed real estate data solutions that assist in portfolio management, valuations, property records, lead generation and improved risk analysis for all aspects of servicing, origination, default and capital markets. In addition, we deliver data and analytics to clients in real estate, title insurance, MLS and other verticals that rely on property data-centric solutions to make informed decisions and run their businesses.

We also offer a highly accurate behavioral model built on our datasets and other third-party sources that forecasts prepayments, default, delinquencies and losses on residential mortgage loans and securities. Used for portfolio analysis, our AFT^{SM} solution can serve as a powerful risk mitigation tool as well as a key component of any data-driven retention efforts.

Accurate valuations are critical to any real-estate transaction. Our automated valuation models ("AVMs") are built on the foundation of our property data, proprietary information, proven methodologies and advanced user and performance testing and deliver exceptionally reliable automated property valuations.

To better understand the housing market, we also leverage MLS and property data to provide near-real-time daily data views of the housing market, looking at home prices, inventory levels, days on market and other key indicators at the state, core based statistical areas and zip code levels.

We also provide data solutions that enable our clients to analyze big data sets through the synergistic convenience of a single data science workspace. Our cloud-based enterprise data and analytics solution, RAP^{SM}, is an interactive data science platform that allows clients to quickly aggregate data from our extensive mortgage and housing data marketplace with their own data sources to execute both custom and proprietary queries.

Our real estate focused clients leverage our market-leading software solution for regional MLS associations to manage property listings. The platform also enables membership management, provides tools for collaboration with loan officers and other affiliates and marketing tools to effectively meet dynamic market challenges.

Focus on Value-Driven Innovation

The value our clients place on innovation can be seen in the adoption rates of the next-gen products we have delivered. When developing and delivering our products, we leverage a combination of private cloud, public cloud, APIs and a host of other technology-forward options that allow us to deliver innovative solutions to market quickly in response to address our client's biggest challenges.

Our solutions are designed to be scalable, secure, flexible, standards-based and web-connected for easy use. Further, we have a proven history of bringing solutions to market quickly due to investments we have made in integrating and streamlining our software and development processes.

Our Competitive Strengths

We believe our competitive strengths include the following:

Market leadership with comprehensive and integrated solutions. We are a leading provider of comprehensive and integrated solutions to the markets we serve. This leadership position is the result of strong client relationships, our knowledgeable employees who are focused on delivering superior solutions and support and delivering innovative solutions. Our innovations have propelled the industry forward over many years.

We have used this insight to develop a comprehensive, integrated ecosystem of proprietary software, data and analytics solutions to automate many of mortgage and real estate markets' mission-critical business processes. These integrated solutions reduce manual processes, help improve organizational compliance and mitigate risk, and ultimately deliver significant cost savings to our clients.

Broad and deep client relationships with significant recurring revenues. We have long-standing, sticky relationships with our largest clients. We frequently enter long-term contracts with our software solutions clients that contain a base subscription fee with additional fees that are activity-based. Our products are typically embedded within our clients' mission-critical workflow and decision-making processes across various parts of their organizations.

Extensive data assets and analytics capabilities. We develop and maintain large, accurate and comprehensive data sets on the real estate and mortgage industries that we believe are competitively differentiated. Our unique data sets provide a combination of public and proprietary data, and each of our data records features many attributes. Our data scientists bring comprehensive analytical capabilities to bear against these data sets, subject to any applicable use restrictions, to create highly customized reports. These reports include models of customer behavior for originators and servicers, portfolio analytics for capital markets and government agencies and proprietary market insights for real estate agencies. As mentioned, our data and analytics capabilities are also embedded into our software solutions and workflow products to provide actionable insights.

Scalable and cost-effective operating model. Our market leadership, hosted software solutions and large client base have allowed us to develop a highly attractive and scalable operating model that provides us with significant benefits. Our scale and operating leverage allow us to add clients to our existing platforms with limited incremental cost. As a result, our operating model drives attractive margins and generates significant cash flow. Also, by leveraging our scale and leading market position, we can make cost-effective investments in our software solutions to assist with complex regulatory and compliance requirements, which we believe increases our value proposition to clients.

Our Strategy

Our comprehensive integrated solutions ecosystem; unique, robust data and analytic capabilities; differentiated business model; broad and deep client relationships; and other competitive strengths put us in a very strong position to pursue multiple avenues for growth opportunities. We intend to continue to expand and grow our business through the following key strategies:

Win new clients. We intend to attract new clients by demonstrating the value proposition provided by our software and comprehensive solutions offering. In addition to top tier mortgage loan originators and servicers, where we have had and continue to have success, we believe there continues to be a significant opportunity to penetrate the mid-tier mortgage loan originators and servicers, as well as mortgage broker, markets. We believe these institutions can benefit from our proven solutions suite to address complex regulatory requirements and compete more effectively in the evolving mortgage loan market. We intend to continue to pursue all of these channels and benefit from the low incremental cost of adding new clients to our scalable applications and infrastructure.

Cross-sell existing products. The Black Knight ecosystem offers a wide variety of opportunities for existing clients to reap further benefits when they increase their use of our solutions across the real estate and mortgage continuum due to the integrations and seamless data sharing. It therefore also represents a substantial opportunity for growth as we seek to capitalize on familiarity and proven benefits. We intend to broaden and deepen existing client relationships through cross sales of solutions, data and analytics that reveal opportunity for client-side improvement of one form or another. We aim to help our clients see the true benefit of our fully integrated solutions ecosystem and the compound value of leveraging multiple solutions simultaneously. Helping our clients better focus on their core businesses and customers will put us in a better position to expand those existing relationships while adding value.

Solution development and innovation. Our long-term vision is to continue to lead through innovation and to solidify our role as the clear leader in providing software, data and analytics to the mortgage and real estate markets. We intend to continue to innovate with urgency and integrate new solutions with our platforms in ways that bring the most value to our clients and their customers. We have a strong track record of introducing and developing new solutions that are tailored to specific industry trends and enhance our clients' core operating functions. By working in partnership with key clients, we have been able to develop and market new and advanced solutions that meet the evolving demands of the mortgage and consumer loan, real estate and capital markets verticals. In addition, we will continue to develop and leverage insights from our large public and proprietary data assets to further improve our client value proposition.

Selectively pursue strategic acquisitions. The core focus of our strategy is to grow organically. However, we may selectively evaluate strategic acquisition opportunities that would allow us to expand our footprint, broaden our client base and deepen our product and service offerings. We believe there are meaningful synergies that result from acquiring companies that provide best-in-class single point solutions. Integrating and cross selling these point solutions into our broader client base and integrating acquisitions into our efficient operating environment would potentially result in revenues and cost synergies. Additionally, new directions for product development often materialize when acquired companies are integrated into the wider ecosystem.

Our Clients

We provide solutions to financial institutions, mortgage lenders and servicers, mortgage brokers, investors, attorneys, trustees and real estate professionals.

The U.S. mortgage loan industry is concentrated among the top 25 institutions, and our most significant and long-term relationships tend to follow the industry landscape. The number of solutions being used by each client in this category continues to grow, as the compounded value of multiple Black Knight products becomes clearer over time. Because of the depth of these relationships, we derive a significant portion of our revenues from our largest clients.

For the year ended December 31, 2021, one of our clients accounted for approximately 10% of our Data and Analytics segment revenues. No client accounted for more than 10% of our consolidated revenues for the year ended December 31, 2021.

For the year ended December 31, 2021, our five largest clients accounted for approximately 26% of our consolidated revenues and approximately 28% of our Software Solutions segment revenues. However, the revenues in each case are spread across a range of services and are subject to multiple, separate contracts. Although the diversity of the services we provide to each of these clients reduces the risk that we would lose all of the revenues associated with any of these clients, a significant deterioration in our relationships with or the loss of any one or more of these clients could have a material effect on our results of operations or financial condition. See Item 1A. *Risk Factors* of Part I of this Report.

Sales and Marketing

Our sales and marketing efforts are focused on generating new leads to both securing new clients in our target markets, as well as cross sell the integrated Black Knight solutions ecosystem to existing clients.

Regardless of the market we are serving, our sales and marketing strategy remains the same: communicate how our solutions address the challenges facing a specific market and deliver those messages where the companies we serve are engaging. We establish relationships, deliver proven solutions and continually build trust. Our experienced sales personnel are subject matter experts in our services, the needs of our clients and the markets we serve.

We are able to effectively communicate the value of the Black Knight ecosystem by developing and delivering solutions that move the needle by helping our clients achieve greater levels of success. We know that references from colleagues in the industry are one of the top reasons a provider is selected, so we remain committed to delivering powerful solutions that cultivate those references.

Our relationships with so many different companies across the real estate and mortgage sectors provide us with a unique opportunity to gain insight into trends and challenges facing the industry. We couple that with thoughtful analysis of our vast data assets to develop solutions and provide industry insights others cannot. We are also focused on sharing that thought leadership with our clients, the media, the public and our entire industry.

To understand what will help our various and disparate market segments succeed, we also conduct market research through conversations with clients and prospects, market surveys, industry reports and discussions with other industry leaders. Likewise, we also host client user groups and participate in user forums to understand the needs and concerns of the everyday users of our solutions.

We deliver our messages where the companies we serve are congregating – through tradeshows, events, publications, digital channels, etc. – and engage them in conversations that highlight the many differentiators/competitive advantages we provide through our continual innovations. We engage with existing clients on a regular basis and continually focus on engaging with prospective clients. Given the broad range of solutions we offer, we have significant opportunity to expand our sales to our existing client base through cross-selling efforts.

We have a core team of account managers who cross-sell solutions to existing clients at the top-tier and mid-tier U.S. mortgage loan originators and servicers, as well as a number of other financial institutions, investors and real estate professionals. We engage in strategic account reviews, during which our executives share their knowledge of clients and the market to determine the best sales approach on a client-by-client basis. As a result, we believe we have created an effective cross-selling culture within our organization.

Research and Development

Our research and development activities are core to our corporate mission of transforming the industry through innovation. As such, they relate to the design, development, integration and enhancement of the software applications that make up the Black Knight ecosystem. We expect to continue our practice of investing an appropriate level of resources to maintain, enhance and extend the functionality of our existing proprietary systems and software applications; to develop new and innovative systems and software applications in response to the needs of our clients as well as market and regulatory conditions and to enhance the capabilities of the ecosystem infrastructure. We work with our clients to determine the appropriate timing and approach to introducing technology or infrastructure changes to our applications and services.

Patents, Trademarks and Other Intellectual Property

We rely on a combination of contractual restrictions, internal security practices and copyright and trade secret laws to establish and protect our software, technology, data and expertise. Further, we have developed strong brand recognition, which has helped us accumulate goodwill in the marketplace, and we rely on the above to protect our rights in that area. We intend to continue our policy of taking all measures we deem necessary to protect our copyright, trade secret and trademark rights.

Competition

The multiple business verticals in which we engage are highly competitive. We believe that compounded benefits of our integrated ecosystem of software solutions represent a value proposition that is strong and wholly unique to Black Knight. Our economies of scale in the mortgage loan origination and servicing markets also provide us with a distinct competitive advantage in each of these categories. Based on our knowledge of the industry and competitors, we believe that no single competitor is capable of delivering the depth and breadth of solutions we are able to offer.

Competitive factors in processing businesses include the quality of the technology-based application or service, application features and functions, ease of delivery and integration, ability of the provider to maintain, enhance and support the applications or services and pricing.

Software Solutions. Our Software Solutions segment competes with a) our clients' internal technology departments and b) other providers of similar systems, such as Intercontinental Exchange's Mortgage Technology segment and Sagent Lending Technologies. Competitive factors include the quality of the technology-based application or service, application features and functions, ease of delivery and integration, ability of the provider to maintain, enhance and support the applications or services and pricing. We believe that our ability to deliver proven solutions, integrated software solutions, adoption rate of our solutions and the economies of scale we offer in the mortgage loan processing business provide us with a competitive advantage in each of these categories.

Data and Analytics. In our Data and Analytics segment, we compete primarily with CoreLogic and in-house capabilities and certain niche providers. We compete based on the breadth and depth of our data; the exclusive nature of some of our key data sets; robust proprietary analytics and the capabilities to produce highly customized reports. We believe that the quality of the data we offer is distinguished by the broad range of our data sources, including non-public sources; the volume of records we maintain; our ability to integrate our data and analytics across the Black Knight ecosystem; and the ability to leverage our market leading position in the mortgage loan origination and servicing industries.

Government Regulations

Various aspects of our businesses are subject to federal and state regulations. Our failure to comply with any applicable laws and regulations could result in restrictions on our ability to provide certain services, as well as the possible imposition of civil fines and criminal penalties.

As a provider of electronic data processing to financial institutions, such as banks and credit unions, we are subject to regulatory oversight and examination by the Federal Financial Institutions Examination Council ("FFIEC"), an interagency body of the Federal Reserve Board ("FRB"), the CFPB, the OCC, the Federal Deposit Insurance Corporation ("FDIC") and various other federal and state regulatory authorities. We also may be subject to possible review by state agencies that regulate banks in each state in which we conduct our electronic processing activities.

Our financial institution clients are required to comply with various privacy laws and regulations under state and federal law, including the Gramm-Leach-Bliley Act. These laws and regulations place restrictions on the use of non-public personal information. All financial institutions must disclose detailed privacy policies to their customers and offer them the opportunity to direct the financial institution not to share information with third parties. The regulations, however, permit financial institutions to share information with non-affiliated parties who perform services for the financial institutions. As a provider of services to financial institutions, we are required to comply with the same privacy regulations and are generally bound by the same limitations on disclosure of the information received from our clients as those that apply to the financial institutions themselves.

Increased scrutiny of all parties involved in the mortgage loan industry by governmental authorities has included federal and state government review of all aspects of the mortgage lending business, including an increased legislative and regulatory focus on consumer protection practices. Future legislative or regulatory changes are difficult to predict and new laws or regulations that may be implemented by the CFPB or other regulatory bodies may require us to change our business practices or cause us to incur increased costs to comply.

Many consumer advocates, privacy advocates and government regulators believe that existing laws and regulations do not adequately protect privacy or ensure the accuracy of consumer-related data. As a result, they have implemented or are seeking to implement further restrictions, such as the California Consumer Privacy Act ("CCPA"), the California Privacy Rights Act ("CPRA"), the New York Department of Financial Services Cybersecurity Requirements for Financial Services Companies ("NY DFS Cybersecurity Regulation") and the Vermont Act Relating to Data Brokers and Consumer Protection ("Vermont Data Broker Law"), on the acquisition, dissemination or commercial use of personal information within the public and private sectors and are also contemplating requirements relative to data accuracy and the ability of consumers to opt to have their personal data removed from databases such as ours. We are also subject to these state regulations.

Information Technology and Security

We are highly dependent on information technology networks and systems to securely process, transmit and store electronic information. Attacks on information technology systems continue to grow in frequency, complexity and sophistication and we expect this trend to continue. Such attacks have become a point of focus for individuals, businesses and governmental entities. These attacks can create system disruptions, shutdowns or unauthorized disclosure of confidential information, including non-public personal information, consumer data and proprietary business information. Refer to the "Risks Related to Information Security" section of Item 1A. Risk Factors for additional information.

We protect our data assets by providing centralized security solutions and enforcing a defense-in-depth, centralized model that includes deterring, detecting, preventing, analyzing and containing security incidents. We focus on all areas of cybersecurity including threat and vulnerability management, security monitoring, identity and access management, phishing awareness, risk oversight, third-party risk management, disaster recovery and continuity management. We make strategic investments in information security to protect our clients and our information systems. This includes both capital expenditures and operating expenses for hardware, software, personnel and consulting services.

As our primary solutions and services evolve, we apply a comprehensive approach to the mitigation of identified security risks. We have established policies, including those related to privacy, information security and cybersecurity, and we employ a broad and diversified set of risk monitoring and risk mitigation techniques.

- **Enterprise Risk Management**: We maintain a comprehensive Enterprise Risk Management ("ERM") program that provides the framework to align our risk appetite and strategy to enhance management of enterprise risks, including information security risks. Through our ERM program, we analyze risks inherent to our products, services and businesses, and develop appropriate plans to mitigate those risks. The executive-level Enterprise Risk and Compliance Committee convenes regularly to discuss matters relating to our enterprise risk position and risk management, such as third-party risk, phishing, security incident response, application resiliency, environmental, social and governance responsibilities and external and internal vulnerabilities. The Risk Committee of our Board of Directors oversees the ERM and Compliance programs through regular reports from our Chief Risk Officer, Chief Information Security Officer and Chief Compliance Officer, and reports on these matters to our board of directors.

- **Compliance**: Our Compliance function provides the standards and policies to mitigate identified risks, as well as training for our employees on applicable privacy, security, legal and regulatory requirements that provide ongoing enhancement of our security and risk culture.

- **Internal Audit**: Our Internal Audit function provides independent and objective assurance services designed to improve the Company’s operations. Internal Audit focuses a significant portion of their time and resources to the audit of information technology and security. The Internal Audit department is established by the Audit Committee of the Board of Directors, and it directly oversees its results and operations.

Human Capital Management

We power the markets we serve by delivering cutting-edge solutions. Our employees are a key factor of our success. Since March 2020, substantially all of our employees have been working from home. We are closely monitoring the facts and circumstances surrounding the COVID-19 pandemic, including the guidance and protocols published by the U.S. Centers for Disease Control, the World Health Organization and country, state and local governments. Our most important priorities are the health and safety of our employees and helping the communities where we work and live. A return-to-office plan has been created, which outlines when and how we will begin to lift the actions put in place as part of our business continuity plans. The plan will be enacted at each location when the risk to re-open has been reduced to an acceptable level. In addition, we expanded our employee benefits and other online resources to enable employees to focus on their physical, emotional and social well-being.

We are passionate about giving our employees the tools to equip them for success in their careers, providing the health and wellness benefits needed for physical, mental and social well-being, and delivering on diversity and inclusion initiatives to let every employee know they are valued and respected.

We realize our individual differences are what strengthen us collectively. We are committed to supporting a culture that is representative of the unique values, opinions, cultures and needs of our employees, clients and communities. Through internal programs, including employee training and leadership development, affinity groups, comprehensive benefits and a hands-on leadership team, we support our employees throughout their career.

We strive to attract and retain the most talented employees in the industry by offering competitive compensation and investing in our employees' physical, mental and social well-being to help them achieve goals inside and outside of the office.

As of December 31, 2021, we had approximately 6,400 employees. None of our workforce is unionized. We have not experienced any work stoppages, and we consider our relations with employees to be good.

Financial Information by Segment

In addition to our two reporting segments, we have a corporate organization that consists primarily of general and administrative expenses that are not included in our segments. For financial information by reporting segment, see Note 20 to the Notes to Consolidated Financial Statements.

Additional Information

Our website address is www.blackknightinc.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"). However, the information found on our website is not part of this or any other report.

Item 1A. ***Risk Factors***

In addition to the normal risks of business, we are subject to significant risks and uncertainties, including those listed below and others described elsewhere in this Annual Report on Form 10-K. Any of the risks described herein could result in a significant or material adverse effect on our results of operations or financial condition.

Risks Related to Our Business

We rely on our top clients for a significant portion of our revenues and profits, which makes us susceptible to the same macro-economic and regulatory factors that affect our clients. If these clients are negatively affected by economic or regulatory conditions or otherwise experience financial hardship or stress, or if we are unable to renew existing agreements or the terms of our relationships with these clients change, it could have a material adverse effect on us.

Our clients are in a relatively consolidated industry and, as a result, a small number of our clients have accounted for a significant portion of our revenues. We expect that a limited number of our clients will continue to represent a significant portion of our revenues for the foreseeable future. The significant portion of our revenues that a limited number of our clients currently represent may increase in the future. During the year ended December 31, 2021, our five largest clients accounted for approximately 26% of our consolidated revenues.

Many of our relationships with these clients are long-standing and are important to our business and results of operations, but there is no guarantee that we will be able to retain or renew existing agreements or maintain our relationships on acceptable terms or at all. Additionally, we rely on cross-selling our products and services to our existing clients as a source of growth. The deterioration in or termination of any of these relationships could significantly reduce our revenues and could have a material adverse effect on our business, financial condition and results of operations. As a result, we may be disproportionately affected by declining revenues from, or loss of, a significant client. In addition, by virtue of their significant relationships with us, these clients may be able to exert pressure on us with respect to the pricing of our services.

The time and expense associated with switching from our competitors' software and services to ours may limit our growth.

The costs for a mortgage lender or servicer to switch providers of software, data and analytics solutions and services can be significant and the process can take 12 to 18 months, or longer, to complete. As a result, potential clients may decide that it is not worth the time and expense to begin using our solutions and services, even if we offer competitive and economic advantages. If we are unable to convince these prospective clients to switch to our software and services, our ability to increase market share will be limited, which could have a material adverse effect on our growth.

We typically provide service level commitments under our client contracts, including commitments to provide high-quality technical support services. If we fail to meet these contractual commitments, it may adversely affect our reputation and relationship with our clients or we could face contract terminations, which could have a material adverse effect on us.

Our client agreements typically provide service level commitments measured on a daily and monthly basis. If we are unable to meet the stated service level commitments or suffer extended periods of unavailability for our applications, we may be contractually obligated to provide these clients with service credits or refunds or we could face contract terminations. If we suffer unscheduled downtime that exceeds the allowed downtimes under our agreements with our clients or if we experience any extended service outages, it could have a material adverse effect on our business, financial condition and results of operations.

In addition, our sales process is highly dependent on our applications and business reputation and on positive recommendations from our existing clients. Any failure to maintain high-quality technical support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation and our ability to sell our applications to existing and prospective clients, any of which could have a material adverse effect on our business, financial condition and results of operations.

Our clients and we are subject to various governmental regulations, and a failure to comply with governmental regulations or changes in these regulations, including changes that may result from changes in the political landscape, could result in penalties, restrict or limit our or our clients' operations or make it more burdensome to conduct such operations.

Many of our clients' and our businesses are subject to various federal, state, local and foreign laws and regulations. Our failure to comply with applicable laws and regulations could restrict our ability to provide certain services or result in imposition of civil fines and criminal penalties, substantial regulatory and compliance costs, litigation expense, adverse publicity and loss of revenues.

As a provider of electronic data processing to financial institutions, such as banks and credit unions, we are subject to regulatory oversight and examination by the FFIEC, the CFPB, the OCC, the FDIC and various other federal and state regulatory authorities. We also may be subject to possible review by state agencies that regulate banks in each state in which we conduct our electronic processing activities.

In addition, our businesses are subject to an increased degree of compliance oversight by regulators and by our clients. Specifically, the CFPB has authority to write rules affecting the business of, supervise, conduct examinations of and enforce compliance with federal consumer financial laws and regulations with respect to certain "non-depository covered persons" determined by the CFPB to be "larger participants" that offer consumer financial products and services. The CFPB and the prudential financial institution regulators, such as the OCC, also have the authority to examine us in our role as a service provider to large financial institutions. In addition, we believe some of our largest bank clients' regulators are requiring the banks to exercise greater oversight and perform more rigorous audits of their key service providers such as us.

The Real Estate Settlement Procedures Act ("RESPA") and related regulations generally prohibit the payment or receipt of fees or any other item of value for the referral of real estate-related settlement services. RESPA also prohibits fee shares or splits or unearned fees in connection with the provision of residential real estate settlement services, such as mortgage brokerage and real estate brokerage. Notwithstanding these prohibitions, RESPA permits payments for goods furnished or for services actually performed, so long as those payments bear a reasonable relationship to the market value of the goods or services provided. RESPA and related regulations may to some extent restrict our real estate-related businesses from entering into certain preferred alliance arrangements. The CFPB is responsible for enforcing RESPA.

Changes to laws and regulations and regulatory oversight of our clients and us, including those that may result from changes in the political landscape, may cause us to increase our prices in certain situations or decrease our prices in other situations, may restrict our ability to implement price increases or otherwise limit the manner in which we conduct our business. We may also incur additional expense in keeping our software solutions services up to date as laws and regulations change, and we may not be able to pass those additional costs on to our clients. In addition, in response to increased regulatory oversight, participants in the mortgage lending industry may develop policies pursuant to which they limit the extent to which they can rely on any one vendor or service provider. Conversely, in an environment with less stringent regulatory oversight, prospective clients may choose to retain their in-house platforms, or current service providers, or seek alternative service providers who provide services that are less compliance and quality oriented at a lower price point. If we are unable to adapt our products and services to conform to increased or evolving laws and regulations, or if these laws and regulations have a negative effect on our clients, we may experience client losses or increased operating costs, which could have a material adverse effect on our business, financial condition and results of operations.

There may be consolidation in our end client market, which could reduce the use of our services by our clients.

Consolidations among existing or potential clients could reduce the number of our clients and potential clients. If our clients merge with, are acquired by or sell their servicing portfolios to other entities that are not our clients, or that use fewer of our services, they may discontinue or reduce their use of our services. In addition, if potential clients merge, our ability to increase our client base may be adversely affected and the ability of our clients to exert pressure on our pricing may increase. Any of these developments could have a material adverse effect on our business, financial condition and results of operations.

Participants in the mortgage loan industry are subject to efforts by the government to regulate the mortgage loan industry or address the mortgage loan market and current economic environment.

The mortgage loan industry is heavily regulated and continues to be subject to review by governmental authorities. Inquiries may include federal and state governmental review of all aspects of the mortgage lending business. Such efforts may include actions to address the housing market and the economy in general and to maintain rigorous mortgage loan servicing standards.

Additional state and federal government actions directed at housing and the mortgage loan industry may occur and could have a material adverse effect on our business, financial condition and results of operations.

Our clients’ relationships with government-sponsored enterprises ("GSEs") are subject to change.

Our clients have significant relationships with Fannie Mae and Freddie Mac, which are GSEs tasked with working with financial institutions to provide liquidity to the mortgage loan market. The GSEs do this by purchasing loans from the lenders either for cash or in exchange for mortgage-backed securities that are backed by those loans and that, for a fee, carry the GSEs’ guarantee of timely payment of interest and principal to investors of those mortgage-backed securities. Because our clients service the loans owned by GSEs, we provide solutions and services for many of those loans. As a result of these relationships, GSEs have been able to implement changes to our pricing structure on certain products and services we provide. GSEs or other governmental agencies may be able to exert similar pressure on the pricing of our solutions and services in the future, which could have a material adverse effect on our business, financial condition and results of operations.

If we fail to adapt our solutions to technological changes or evolving industry standards and regulations, or if our ongoing efforts to upgrade, modernize or innovate our technology are not successful, we may not be able to achieve our growth strategies and we could lose clients and have difficulty attracting new clients for our solutions.

The markets for our solutions are characterized by constant technological changes, frequent introductions of new products and services and evolving industry standards and regulations. Our growth strategies and future success will be significantly affected by our ability to successfully enhance our current solutions, and to develop and introduce new solutions and services that address the increasingly sophisticated needs of our clients and their customers. These initiatives carry the risks associated with any new product or service development effort, including cost overruns, delays in delivery and performance issues. There can be no assurance that we will be successful in developing, marketing and selling new solutions and services that meet these changing demands, that we will not experience difficulties that could delay or prevent the successful development, introduction and marketing of these solutions and services or that our new solutions and services and their enhancements will adequately meet the demands of the marketplace and achieve market acceptance. If our efforts are unsuccessful, it could have a material adverse effect on our business, financial condition and results of operations.

We operate in a competitive business environment and, if we are unable to compete effectively, it could have a material adverse effect on us.

The markets for our solutions are intensely competitive. Our competitors vary in size and in the scope and breadth of the services they offer. Some of our competitors have substantial resources. In addition, we expect that the markets in which we compete will continue to attract new competitors and new technologies. There can be no assurance that we will be able to compete successfully against current or future competitors or that competitive pressures we face in the markets in which we operate will not have a material adverse effect on our business, financial condition and results of operations.

Further, because many of our larger existing or potential clients have historically developed their key processing applications in-house, and therefore, view their system requirements from a make-versus-buy perspective, we often compete against our existing or potential clients' in-house capabilities. As a result, gaining new clients in our servicing and origination software businesses can be difficult. For banks and other potential clients, switching from an internally designed system to an outside vendor, or from one vendor of servicing and origination software services to a new vendor, is a significant undertaking. These potential clients worry about possible disadvantages such as loss of custom functionality, increased costs and business disruption. As a result, these potential clients often resist change. There can be no assurance that our strategies for overcoming potential clients' reluctance to change will be successful, and if we are unsuccessful, it could have a material adverse effect on our business, financial condition and results of operations.

To the extent the availability of free or relatively inexpensive information increases, the demand for some of our data and information solutions may decrease.

Public sources of free or relatively inexpensive information have become increasingly available, particularly through the Internet, and this trend is expected to continue. Governmental agencies in particular have increased the amount of information to which they provide free public access. Public sources of free or relatively inexpensive information may reduce demand for, or the price that clients are willing to pay for, our data and information solutions. To the extent that clients choose not to obtain data and information from us and instead rely on information obtained at little or no cost from these public sources, it could have a material adverse effect on our business, financial condition and results of operations.

We rely upon proprietary technology and information rights, and if we are unable to protect our rights, it could have a material adverse effect on us.

Our success depends, in part, upon our intellectual property rights. We rely primarily on a combination of patents, copyrights, trade secrets, trademark laws, nondisclosure and other contractual restrictions on copying, distribution and creation of derivative products to protect our proprietary technology and information. This protection is limited, and our intellectual property could be used by others without our consent. In addition, patents may not be issued with respect to our pending or future patent applications, and our patents may not be upheld as valid or may not prevent the development of competitive products. Any infringement, disclosure, loss, invalidity of or failure to protect our intellectual property could have a material adverse effect on our business, financial condition and results of operations. Moreover, litigation may be necessary to enforce or protect our intellectual property rights, to protect our trade secrets or to determine the validity and scope of the proprietary rights of others. Such litigation could be time-consuming, result in substantial costs and diversion of resources and could have a material adverse effect on our business, financial condition and results of operations.

If our applications, solutions, including those that contain "open source" software, or services are found to infringe the proprietary rights of others or fail to comply with the terms of one or more of these open source licenses, we may be required to change our business practices and may also become subject to significant costs and monetary penalties.

We use a limited amount of software licensed by its authors or other third parties under so-called “open source” licenses and may continue to use such software in the future. Some of these licenses contain requirements that we make available source code for modifications or derivative works we create based upon the open source software, and that we license such modifications or derivative works under the terms of a particular open source license or other license granting third parties certain rights of further use. By the terms of certain open source licenses, we could be required to release the source code of our proprietary software if we combine our proprietary software with open source software in a certain manner. Additionally, the terms of many open source licenses have not been interpreted by the United States or other courts, and there is a risk that these licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions. In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third-party commercial software, as open source licensors generally do not provide warranties or controls on origin of the software. We cannot be sure that all open source software is submitted for approval prior to use in our solutions. In addition, many of the risks associated with using open source software cannot be eliminated, and could, if not properly addressed, have a material adverse effect on our business, financial condition and results of operations.

As our information technology applications and services develop, we may become increasingly subject to infringement claims. Any such claims, whether with or without merit, could:

- be expensive and time-consuming to defend;
- cause us to cease providing solutions that incorporate the challenged intellectual property;
- require us to redesign our solutions, if feasible;
- divert management’s attention and resources; and
- require us to enter into royalty or licensing agreements in order to obtain the right to use necessary technologies.

Any one or more of the foregoing outcomes could have a material adverse effect on our business, financial condition and results of operations. Additionally, we may be liable for damages for past infringement if a court determines that our software or technologies infringe upon a third party’s patent or other proprietary rights.

We depend on our ability to access data from external sources to maintain and grow our businesses. If we are unable to access needed data from these sources or if the prices charged for these services increase, the quality, pricing and availability of our solutions may be adversely affected.

We rely extensively upon data from a variety of external sources to maintain our proprietary and non-proprietary databases, including data from third-party suppliers, various government and public record sources and data contributed by our clients. Our data sources could cease providing or reduce the availability of their data to us, increase the price we pay for their data or limit our use of their data for a variety of reasons, including legislatively or judicially imposed restrictions on use. If a number of suppliers are no longer able or are unwilling to provide us with certain data, or if our public record sources of data become unavailable or too expensive, we may need to find alternative sources. If we are unable to identify and contract with suitable alternative data suppliers and efficiently and effectively integrate these data sources into our service offerings, we could experience service disruptions, increased costs and reduced quality of our services. Moreover, some of our data suppliers compete with us in certain product offerings, which may make us vulnerable to unpredictable price increases from them. Significant price increases could require us to seek other sources of data on more favorable economic terms, which may not be available at all. Loss of such access or the availability of data in the future on commercially reasonable terms or at all may reduce the quality and availability of our services and solutions, which could have a material adverse effect on our business, financial condition and results of operations.

Our international third-party service providers and our own international operations subject us to additional risks.

We have sought to reduce our costs by utilizing lower-cost labor outside the United States. Other countries may be subject to higher degrees of political and social instability than the United States and may lack the infrastructure to withstand political unrest, natural disasters or pandemics. Such disruptions, including supply chain disruptions, can affect our ability to deliver our solutions on a timely basis, if at all, and to a lesser extent can decrease efficiency and increase our costs. Weakness of the U.S. dollar in relation to the currency used and higher inflation rates experienced in other countries may also reduce anticipated savings. Furthermore, the practice of utilizing labor based in foreign countries has come under increased scrutiny in the United States and, as a result, many of our clients may require us to use labor based in the United States. We may not be able to pass on the increased costs of higher-priced United States-based labor to our clients, which could have a material adverse effect on our business, financial condition and results of operations.

In addition, other countries could adopt new legislation or regulations that could make it difficult, more costly or impossible for us to continue our foreign activities as currently being conducted. In addition, in many foreign countries, particularly in those with developing economies, it is common to engage in business practices that are prohibited by laws and regulations applicable to us, such as the Foreign Corrupt Practices Act ("FCPA") or other local anti-corruption laws. Any violations of FCPA or local anti-corruption laws by us or our subsidiaries, could result in substantial financial and other penalties, which could have a material adverse effect on our business, financial condition and results of operations.

We may experience system failures or service interruptions that could harm our business and reputation and expose us to potential liability.

We depend heavily upon the computer systems and our existing technology infrastructure located in our data centers. Certain system interruptions or events beyond our control could interrupt or terminate the delivery of our solutions and services to our clients and may interfere with our suppliers' ability to provide necessary data to us and our employees' ability to perform their responsibilities.

These potential interruptions include, but are not limited to, damage or interruption from hurricanes, floods, fires, power losses, telecommunications outages, cyber-based attacks, ransomware attacks, terrorist attacks, acts of war, human errors and similar events. Our corporate offices and one of our data centers are located in Jacksonville, Florida, which is an area that is at high risk of hurricane and flood damage. Climate change is believed to be linked to severe weather events across the country and the potential for increases in the frequency or intensity of such events. In addition, acts of terrorism, which may be targeted at metropolitan areas that have higher population density than rural areas, could cause disruptions in our business or the economy as a whole. The servers that we use through various third-party service providers may also be vulnerable to similar disruptions, which could lead to interruptions, delays and loss of critical data. Such service providers may not have sufficient protection or recovery plans in certain circumstances, and our insurance may not be sufficient to compensate us for losses that may occur.

Defects in our software solutions, errors or delays in the processing of electronic transactions, or other difficulties could result in:

- interruption of business operations;
- delay in market acceptance;
- us, or our clients, missing a regulatory deadline;
- additional development and remediation costs;
- diversion of technical and other resources;
- loss of clients;
- negative publicity; or
- exposure to liability claims.

Any one or more of the foregoing occurrences could have a material adverse effect on our business, financial condition and results of operations. Although we attempt to limit our potential liability through disclaimers and limitation-of-liability provisions in our client agreements, we cannot be certain that these measures will be successful in limiting our liability.

We may experience delays or difficulty in developing or implementing new, enhanced or existing software, data or hosting solutions, which may negatively affect our relationships with existing and potential clients, reduce or delay the generation of revenues or increase development and implementation costs.

Our future financial performance depends upon the successful development, implementation and client acceptance of new, existing and enhanced versions of our software and hosting solutions. We continually seek to develop enhancements to our solutions, including updates in response to changes in applicable laws, as well as new offerings to supplement our existing solutions. As a result, we are subject to the risks inherent in the development and integration of new technologies, including defects or undetected errors in our software solutions, difficulties in installing or integrating our technologies on platforms used by our clients or other unanticipated performance, stability and compatibility problems. Any of these problems could result in material delays in the introduction or acceptance of our solutions, increased costs, decreased client satisfaction, breach of contract claims, harm to our industry reputation and reduced or delayed revenues. If we are unable to implement existing solutions or deliver new solutions or upgrades or other enhancements to our existing solutions on a timely and cost-effective basis, it could have a material adverse effect on our business, financial condition and results of operations.

In addition, as a significant focus of our sales efforts is on the top U.S. mortgage loan originators and servicers, larger clients may demand more complex integration, implementation services and features, which may result in implementations that take longer than we forecast or delays in these clients using our solutions. Furthermore, if implementations take longer than planned or these clients delay their use of our solutions, we may be required to delay revenue recognition on some of these transactions until the technical or implementation requirements have been met, and we may not generate revenues from these clients as quickly as we had forecast.

Because our revenues from clients in the mortgage lending industry are affected by the strength of the economy and the housing market generally, including the volume of real estate transactions, a change in any of these conditions could have a material adverse effect on us.

Our revenues are primarily generated from software and hosting solutions, professional services and data solutions we provide to the mortgage loan industry and, as a result, a weak economy or housing market may have a material adverse effect on our business, financial condition and results of operations. The volume of mortgage loan origination and residential real estate transactions is highly variable and reductions in these transaction volumes could have a direct effect on the revenues we generate from our software solutions business and some of our data and analytics businesses.

The revenues we generate from our servicing software solutions primarily depend upon the total number of mortgage loans processed on MSP®, which tends to be comparatively consistent regardless of economic conditions. However, in the event that a difficult economy or other factors lead to a decline in levels of home ownership and a reduction in the number of mortgage loans outstanding and we are not able to counter the effect of those events with increased market share or higher fees, our MSP® revenues could be adversely affected.

In addition, some of our origination software solutions are exposed to variances in origination volumes, primarily related to refinance volumes due to the nature of the services provided. Our data and analytics solutions that are more sensitive to fluctuations in home buying activity and origination volumes primarily relate to services where we provide data necessary for title insurance and other settlement service activities. Moreover, a rising interest rate environment, negative economic conditions, increased unemployment or a downturn in other general economic factors, among other things, could adversely affect the performance and financial condition of some of our clients in many of our businesses, which may have a material adverse effect on our business, financial condition and results of operations if these clients go bankrupt or otherwise exit certain businesses.

A weaker economy and housing market tend to increase the volume of consumer mortgage loan defaults, which can increase revenues from our applications focused on supporting default management functions. However, government regulation of the mortgage loan industry in general, and the default and foreclosure process in particular, has greatly slowed the processing of defaulted mortgage loans and has changed the way many of our clients address mortgage loans in default. A downturn in the origination market and a concurrent slowdown or change in the way mortgage loans in default are addressed could have a material adverse effect on our business, financial condition and results of operations.

We may fail to attract and retain enough qualified employees to support our technology and operations, which could have an adverse effect on our ability to expand our business and service our clients.

Our business relies on large numbers of skilled employees, and our success depends on our ability to attract, train and retain a sufficient number of qualified employees. There has been more competition for talent, wage inflation and benefit offerings since the global spread of COVID-19 in early 2020 and higher levels of workforce mobility. If our attrition rate increases, our operating efficiency and productivity may decrease. We will need to increase our hiring and will incur additional expenses related to retention if we are not able to maintain our attrition rate through our current recruiting and retention policies. We compete for employees not only with other companies in our industry but also with companies in other industries, such as software services, engineering services and financial services companies, and there is a limited pool of employees who have the skills and training needed to do our work. If our business continues to grow, the number of people we will need to hire may increase. Increased competition for employees could have a material adverse effect on our ability to expand our business and service our clients, as well as cause us to incur greater personnel expenses and training costs.

The extent to which health epidemics, including the current COVID-19 pandemic and measures taken in response thereto affect our business, results of operations, liquidity and financial conditions will depend on future developments, which are highly uncertain and are difficult to predict.

Our business and operations could be adversely affected by health epidemics, including the current COVID-19 pandemic, impacting the industries and communities in which we and our clients, suppliers and business partners operate.

The pandemic has resulted in authorities taking various steps to mitigate some of the more severe anticipated economic effects of the virus, but there can be no assurance that such steps will be effective or achieve their desired results in a timely fashion. We may experience financial impacts that are difficult to foresee or measure.

The spread of COVID-19 has caused us to modify our business practices, including restricting employee travel, developing social distancing plans for our employees and limiting physical participation in meetings, events and conferences, and we may take further actions as may be required by government authorities or as we determine are in the best interests of our employees, clients and business partners. As the pandemic continues or becomes endemic, we are unable to predict the extent to which we will need to continue these practices or further modify our business practices to address future surges and variants. There is no certainty that such measures will be sufficient to mitigate the risks posed by the virus or will otherwise be satisfactory to government authorities.

We do not yet know the full extent of the effects on our business, our operations or the economy. However, the effects could have a material adverse effect on our business, financial condition and results of operations even after the COVID-19 pandemic has subsided.

Risks Related to Our Investment in DNB

Our investment in DNB may expose us to certain risks, which could have a material adverse effect on our financial condition and results of operations.

As of February 15, 2022, we own approximately 18.5 million shares of DNB common stock with a fair value of $353 million based on DNB's closing stock price of $19.10 on February 14, 2022. Refer to Note 4 to the Notes to Consolidated Financial Statements for additional information.

DNB may not be successful in developing and implementing its strategic plans to transform its businesses, including realigning management, simplifying and scaling technology, expanding and enhancing data and optimizing its client services. If the development or implementation of its plans are not successful, DNB may not produce the revenue, margins or earnings that it expects, including offsetting the impact of adverse economic conditions that may exist currently or develop in the future. DNB may also face delays or difficulties in implementing technological, organizational and operational improvements, including its plans to leverage its data insights in new functional areas and utilize existing data architecture to generate high contribution incremental revenue streams, which could adversely affect its ability to successfully compete. In addition, the costs associated with implementing such plans may be more than anticipated and DNB may not have sufficient financial resources to fund all of the desired or necessary investments required in connection with its plans. The existing and future execution of its strategic and operating plans to transform its business will, to some extent, also be dependent on external factors that DNB cannot control. In addition, these strategic and operational plans need to be continually reassessed to meet the challenges and needs of its business in order for DNB to remain competitive. The failure to implement and execute its 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 its business, financial condition and results of operations, which may result in us not realizing our expected return on investment, or a negative return on investment.

Risks Related to Cybersecurity and Data Privacy

If we are unable to protect our information systems against data corruption, cyber-based attacks or network security breaches, including breaches involving third-party vendors, or if we are unable to provide adequate security in the electronic transmission of sensitive data, it could have a material adverse effect on us.

We are highly dependent on information technology networks and systems, including the Internet, to securely process, transmit and store electronic information. Security breaches of this infrastructure, including physical or electronic break-ins, computer viruses, attacks by hackers and similar breaches, and the evolving threat landscape can create system disruptions, shutdowns or unauthorized disclosure of confidential information, including non-public personal information, consumer data and proprietary business information. Cyber-based attacks, including ransomware attacks to extort payment in return for the release of sensitive information, are increasing in frequency and sophistication. Unauthorized access, including through use of fraudulent schemes such as "phishing" schemes, could jeopardize the security of information stored in our systems. In addition, malware or viruses could jeopardize the security of information stored or used in a user’s computer. If we are unable to prevent or detect such security or privacy breaches or our third-party vendors are unable to prevent or detect such breaches, our operations could be disrupted, or we may suffer loss of reputation, financial loss, lawsuits and regulatory-imposed restrictions and penalties because of lost or misappropriated information, including sensitive consumer data, which could have a material adverse effect on our business, financial condition and results of operations. Likewise, our clients are increasingly imposing more stringent contractual obligations on us relating to our information security protections. If we are unable to maintain protections and processes at a level commensurate with that required by our large clients, it could negatively affect our relationships with those clients, increase our operating or litigation costs or subject us to liability under those contractual obligations, which could have a material adverse effect on our business, financial condition and results of operations.

Our policies and procedures, including those related to cybersecurity, may prove inadequate for the risks we face.

We have devoted significant resources to develop our policies and procedures, including those related to cybersecurity, and expect to continue to do so in the future. Nonetheless, our strategies may not be fully effective in mitigating our risk exposure in all market environments or against all types of risk, including risks that are unidentified or unanticipated. If our solutions change and as the markets in which we operate evolve, our strategies may not always adapt to such changes. Some of our methods of managing risk are based upon our use of observed historical market behavior and management’s judgment. Other of our methods of managing risk depend on the evaluation of information regarding markets, customers, catastrophe occurrence or other matters that are publicly available or otherwise accessible to us. This information may not always be accurate, complete, up-to-date or properly evaluated. As a result, these methods may not predict future risk exposures, which could be significantly greater than the historical measures or available information indicate. In addition, management of operational, legal and regulatory risks requires, among other things, policies and procedures to record and verify large numbers of transactions and events, which may not be fully effective. While we employ a broad and diversified set of risk monitoring and risk mitigation techniques, those techniques and the judgments that accompany their application cannot anticipate every economic and financial outcome or the timing of such outcomes. If our efforts are ineffective, we could suffer losses that could have a material adverse effect on our business, financial condition and results of operations. In addition, we could be subject to litigation, particularly from our clients, and sanctions or fines from regulators.

Regulatory developments with respect to use of consumer data and public records could have a material adverse effect on us.

Because our databases include certain public and non-public personal information concerning consumers, we are subject to government regulation and potential adverse publicity concerning our use of consumer data. We acquire, store, use and provide many types of consumer data and related services that are subject to regulation under the Fair Credit Reporting Act, the Gramm-Leach-Bliley Act, the Driver's Privacy Protection Act and, to a lesser extent, various other federal, state and local laws and regulations. These laws and regulations are designed to protect the privacy of consumers and to prevent security breaches, cyber-based attacks, other unauthorized access and misuse of personal information in the marketplace. Our failure to comply with these laws, or any future laws or regulations of a similar nature, could result in substantial regulatory penalties, litigation expense and loss of revenues, which could have a material adverse effect on our business, financial condition and results of operations.

In addition, some of our data suppliers face similar regulatory requirements and, consequently, they may cease to be able to provide data to us or may substantially increase the fees they charge us for this data, which may make it financially burdensome or impossible for us to acquire data that is necessary to offer our products and services. Further, many consumer advocates, privacy advocates and government regulators believe that existing laws and regulations do not adequately protect privacy or ensure the accuracy of consumer-related data. As a result, they have implemented or are seeking to implement further restrictions, such as the CCPA, CPRA, NY DFS Cybersecurity Regulations and Vermont Data Broker Law, on the acquisition, dissemination or commercial use of personal information within the public and private sectors and are also contemplating requirements relative to data accuracy and the ability of consumers to opt to have their personal data removed from databases such as ours. Privacy laws may be interpreted and applied inconsistently from state to state and impose inconsistent or conflicting requirements. Complying with varying jurisdictional requirements could increase the cost and complexity of compliance. Any future laws, regulations or other restrictions limiting the dissemination or use of personal information may reduce the quality and availability of our solutions and services, which could have a material adverse effect on our business, financial condition and results of operations. Further, violations of privacy laws can result in significant penalties and damage to our brand and business.

Our reliance on third parties subjects us to risk and may disrupt or adversely affect our operations. In addition, we may not realize the full benefit of our third-party arrangements, which may result in increased costs, or may adversely affect the service levels we are able to provide our clients.

We rely upon third parties for various business process and technology-related products and services, including cloud-based providers. Although we have contractual provisions with our providers that specify performance requirements, we do not ultimately control their performance, which may make our operations vulnerable to their performance failures and supply chain constraints. In addition, our failure to adequately monitor and regulate the performance of our third-party vendors could subject us to additional risk. Reliance on third parties also makes us vulnerable to changes in our vendors' businesses, financial condition and other matters outside of our control, including their violations of laws or regulations, which could increase our exposure to liability or otherwise increase the costs associated with the operation of our business. If for any reason our relationship with any of these third parties, including cloud-based providers, were to end unexpectedly, it could require a significant amount of cost and time to transition to new third-party service providers. The failure of our providers to perform as expected or as contractually required could result in significant disruptions and costs to our operations and to the services we provide to our clients, or could result in loss of revenues, which could have a material adverse effect on our business, financial condition and results of operations.

Risk Related to Our Structure

Certain executive officers and members of our Board of Directors and our Chairman Emeritus have or will have interests and positions that could present potential conflicts.

Certain executive officers and members of our Board of Directors, as well as our Chairman Emeritus, serve on the Board of Directors of other entities or are employed by other entities. As a result of the foregoing, there may be circumstances where such persons may be subject to conflicts of interest with respect to matters potentially or actually involving or affecting us.

We have in place a code of business conduct and ethics prescribing procedures for managing conflicts of interest and our chief compliance officer and audit committee are responsible 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.

Refer to Note 6 to the Notes to Consolidated Financial Statements for more information related to our related party relationships and transactions.

We are restricted from pursuing certain potential business opportunities under the non-competition agreement.

In connection with the Distribution, we entered into a non-competition agreement with FNF pursuant to which we agreed to certain restrictions on the scope of the business that we may conduct for the 10-year period following the Distribution, including that we are prohibited from (i) engaging in title generation/escrow services, appraisal or default and field services work (other than technology solutions for such settlement services) without the prior written consent of FNF (subject to an exception allowing us to acquire a business engaged in such restricted services if at least 90% of such business' revenues is contributed by activities other than such restricted services) and (ii) engaging in certain transactions, such as a merger, sale of assets or sale of greater than 5% of its equity interests, with a buyer that derives 10% or more of its revenues from such restricted services. Although we do not presently engage in any of these restricted services and our current business is not restricted, as a result of these restrictions, we may have to forgo certain transactions that might have otherwise been advantageous in compliance with our obligations under the non-competition agreement.

In particular, the restriction on engaging in a merger, sale of assets or sale of greater than 5% of its equity interests with a buyer that derives 10% or more of its revenues from restricted services may discourage a third party engaged in such restricted services from pursuing such a transaction with us during the 10-year period following the Distribution.

General Risk Factors

If we are unable to successfully consummate acquisitions or experience delays in integrating acquisitions, it could have a material adverse effect on us.

One of our strategies to grow our business is to opportunistically acquire complementary businesses, technologies and services. This strategy will depend on our ability to find suitable acquisitions and may depend on financing them on acceptable terms. We may require additional debt or equity financing for future acquisitions, and doing so may be made more difficult by our indebtedness. Raising additional capital for acquisitions through debt financing could result in increased interest expense and may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring additional debt, making capital expenditures or declaring dividends. If we raise additional capital for acquisitions through equity financing, the ownership interests of existing shareholders will be diluted.

If we are unable to acquire suitable acquisition candidates, we may experience slower growth. Further, we may face challenges in integrating any acquired business. These challenges may include eliminating redundant operations, facilities and systems, coordinating management and personnel, retaining key employees, managing different corporate cultures, integrating relationships with clients, vendors and business partners while achieving revenue synergies, cost reductions and cross-selling opportunities. Acquisitions involve numerous operational, strategic, financial, accounting, legal, tax and other risks, including potential liabilities associated with acquired businesses. Difficulties in integrating acquisitions and our ability to manage the combined company may result in the combined company performing differently than expected, in operational challenges or in the delay or failure to realize anticipated revenue synergies and cost-related efficiencies, and could have an adverse effect on our financial condition, results of operations or cash flows.

Additionally, the acquisition and integration processes may disrupt our business and divert management attention and our resources. If we fail to successfully integrate acquired businesses, products, technologies and personnel, it could impair relationships with employees, clients and strategic partners, distract management attention from our core businesses, result in control failures and otherwise disrupt our ongoing business, any of which could have a material adverse effect on our business, financial condition and results of operations. The anticipated benefits and cost savings of an acquisition may not be realized fully or at all, may take longer to realize than expected or could have other adverse effects that we do not currently foresee. In addition, we may be required to record future charges for impairment of goodwill and other intangible assets resulting from such acquisitions.

We have substantial investments in recorded goodwill and other intangible assets, and an extended economic downturn or troubled mortgage market could cause these investments to become impaired.

Goodwill and other intangible assets are assessed for impairment annually or whenever changes in circumstances indicate that the carrying amount may not be recoverable. Factors that may indicate the carrying value of our intangible assets, including goodwill, may not be recoverable include, but are not limited to, significant underperformance relative to historical or projected future results of operations, a significant decline in our stock price and market capitalization, and negative industry or economic trends. However, if there is an extended economic downturn in the future, the carrying amount of our goodwill or other intangible assets may no longer be recoverable, and we may be required to record an impairment charge, which could have a material adverse effect on our results of operations.

Our indebtedness could have a negative effect on our financing options and liquidity position, and certain of our financing arrangements subject us to various restrictions that could limit our operating flexibility.

As of December 31, 2021, we had approximately $2.4 billion of total debt outstanding.

Our indebtedness could have important consequences to us, including:

- requiring us to use a portion of the money we earn to pay principal and interest on our debt, which could reduce the amount of money available to finance operations, acquisitions and other business activities;

- exposing us to costs and risks associated with agreements limiting our exposure to higher interest rates, as such agreements may not offer complete protection from these risks, and subjecting us to the risk that one or more of the counterparties to these agreements may fail to satisfy their obligations under such agreements;

- limiting our flexibility in planning for or responding to changing business and economic conditions, including increased competition, by causing us to have difficulty borrowing money in the future for working capital, capital expenditures, acquisitions or other purposes and possibly limiting our ability to pursue other business opportunities and implement certain business strategies;

- imposing operating and financial restrictions on our activities, including compliance with, or maintenance of, certain financial tests and ratios, including a minimum interest coverage ratio and maximum leverage ratio, and limit or prohibit our ability to, among other things, take advantage of financing, mergers and acquisitions and other corporate opportunities; and

- exposing us to possible losses in connection with our interest rate swaps that are indexed in LIBOR as result of proposed changes to LIBOR reporting practices or the pending replacement of LIBOR with an alternative reference rate.

Our ability to make scheduled payments on or refinance our debt obligations depends on our financial condition and results of operations, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control. Our inability to generate sufficient cash flows to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms or at all, could have a material adverse effect on our business, financial condition and results of operations. If we cannot make scheduled payments on our debt, we will be in default and holders of our outstanding debt could declare all outstanding principal and interest to be due and payable, and we could be forced into bankruptcy or liquidation. Risks associated with our indebtedness 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 us.

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. We have attempted to mitigate this risk by entering into long-term (two to three year) employment contracts with the members of our senior management operating team and providing long-term incentive compensation with multi-year vesting provisions. Effective May 16, 2022, Anthony M. Jabbour, our Chairman and Chief Executive Officer, will assume the role of Executive Chairman of the Board of Directors, Joseph M. Nackashi, our President, will assume the role of Chief Executive Officer and Kirk T. Larsen, our Chief Financial Officer, will assume the role of President and Chief Financial Officer. 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.

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 and employment claims made by our current or former employees.

On November 5, 2019, Black Knight Servicing Technologies, LLC (“BKST”), a wholly-owned indirect subsidiary of Black Knight, filed a Complaint and Demand for Jury Trial (the “Black Knight Complaint”) against PennyMac Loan Services, LLC (“PennyMac”). Shortly after the filing of the Black Knight Complaint, on November 6, 2019, PennyMac filed an Antitrust Complaint (the “PennyMac Complaint”) against Black Knight. Refer to Note 13 to the Notes to Consolidated Financial Statements for more information related to the PennyMac litigation matter.

Litigation can result in substantial costs and may divert management’s attention and resources, which may seriously harm our business, financial condition and results of operations. From time to time, we also receive requests for information from various state and federal regulatory authorities, 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.

There can be no assurance that we will not incur additional material costs and expenses in connection with any potential future 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 or be sufficient for 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.

Our charter and bylaws and provisions of Delaware law may discourage or prevent strategic transactions, including a takeover of our company, even if such a transaction would be beneficial to our shareholders.

Provisions contained in our charter and bylaws and provisions of the Delaware General Corporation Law ("DGCL") could delay or prevent us from entering into a strategic transaction with a third party, as applicable, even if such a transaction would benefit our shareholders. For example, our charter and bylaws:

- authorize the issuance of "blank check" preferred stock that could be issued by us upon approval of our Board of Directors to increase the number of outstanding shares of capital stock, making a takeover more difficult and expensive;
- provide that directors elected prior to 2020 may be removed from office only for cause and that any vacancy on our Board of Directors may only be filled by a majority of our directors then in office, which may make it difficult for other shareholders to reconstitute our Board of Directors;

- provide that special meetings of the shareholders may be called only upon the request of a majority of our Board of Directors or by the chairman of the Board of Directors or our chief executive officer; and
- require advance notice to be given by shareholders for any shareholder proposals or director nominees.

By virtue of not opting out of Section 203 of the DGCL in our amended and restated certificate of incorporation, we are subject to Section 203 of the DGCL, which prohibits a publicly held Delaware corporation from engaging in a "business combination" with an "interested stockholder" for a period of three years after the time the shareholder became an interested stockholder, subject to certain exceptions, including if, prior to such time, the board of directors approved the business combination or the transaction which resulted in the shareholder becoming an interested stockholder. "Business combinations" include mergers, asset sales and other transactions resulting in a financial benefit to the "interested stockholder." Subject to various exceptions, an "interested stockholder" is a person who, together with his or her affiliates and associates, owns or within three years did own 15% or more of the corporation's outstanding voting stock. These restrictions generally prohibit or delay the accomplishment of mergers or other takeover or change of control attempts that are not approved by a company's Board of Directors.

These restrictions and provisions could keep us from pursuing relationships with strategic partners and from raising additional capital, which could impede our ability to expand our business and strengthen our competitive position. These restrictions could also limit shareholder value by impeding a sale of us.

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

The market price of our common stock could fluctuate significantly, and you may not be able to resell your shares at or above the price at which your shares were acquired. Those fluctuations could be based on various factors, including those described above and the following:

- 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;
- changes in earnings estimates or recommendations by research analysts who follow us or other companies in our industry;
- global, national or local economic, legal and regulatory factors unrelated to our performance;
- announcements of positive news by us or our competitors, such as announcements of new products, services, strategic investments or acquisitions;
- announcements of negative news by us or our competitors, such as announcements of poorer than expected results of operations, data breaches or significant litigation;
- 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 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 publicly traded;
- future sales or issuances of our common stock, including sales, distributions or issuances by us, our officers or directors and our significant shareholders; and
- other developments affecting us, our industry or our competitors.

In addition, in recent years the stock market has experienced significant price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies. These fluctuations have often been unrelated or disproportionate to the operating performance of those companies. These broad market fluctuations, as well as general economic, political and market conditions such as recessions or interest rate changes, may cause declines in the market price of our common stock, and you may not realize any return on your investment in us and may lose some or all of your investment.

As we primarily operate in a single industry, we are especially vulnerable to these factors to the extent that they affect our industry or our products. In the past, securities class action litigation has often been initiated against companies following periods of volatility in their stock price. This type of litigation could result in substantial costs and divert our management's attention and resources, and could also require us to make substantial payments to satisfy judgments or to settle litigation.

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. We have not paid cash dividends to date 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.

Item 1B. ***Unresolved Staff Comments***

None.

Item 2. ***Properties***

Our corporate headquarters is located in Jacksonville, Florida in an office building that we own. In addition, we own or lease other office space, data centers and other facilities in the United States and India.

Item 3. ***Legal Proceedings***

For a description of our legal proceedings, see Note 13 to the Notes to Consolidated Financial Statements included in Part II Item 8 of this Report, which is incorporated by reference into this Part I, Item 3.

Item 4. ***Mine Safety Disclosure***

Not applicable.

PART II

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

Shares of our common stock are listed on the New York Stock Exchange ("NYSE") and trade under the symbol "BKI".

On January 31, 2022, the closing price of our common stock on the NYSE was $74.60 per share. We had 5,933 holders of record of our common stock as of January 31, 2022. 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.

There were no unregistered sales of equity securities during the years ended December 31, 2021, 2020 and 2019.

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.

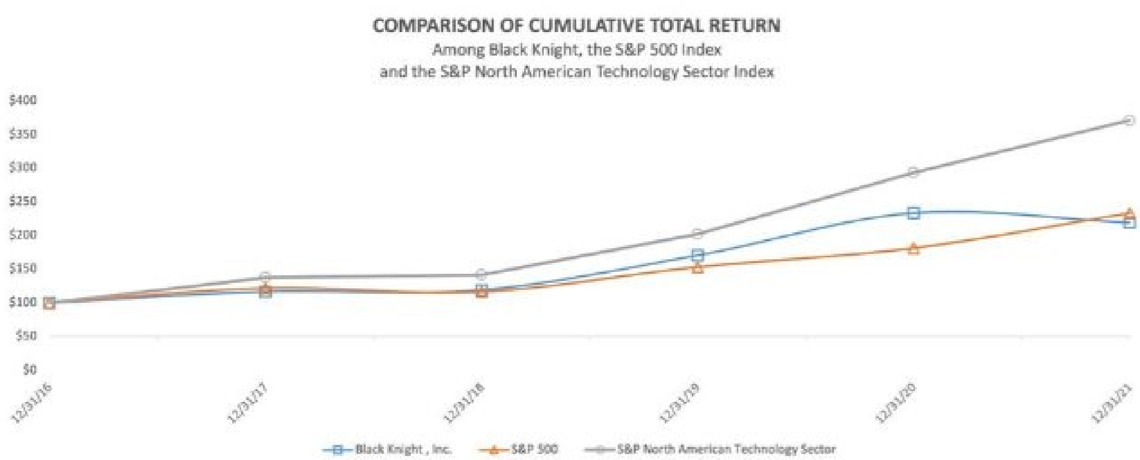
Share Repurchase Program

On February 12, 2020, our Board of Directors approved a three-year share repurchase program authorizing us to repurchase up to 10.0 million shares of our outstanding common stock through February 12, 2023, through open market purchases, negotiated transactions or other means, in accordance with applicable securities laws and other restrictions. This share repurchase program replaced our previous share repurchase program that expired on February 2, 2020.

There were no share repurchases during the fourth quarter of 2021. As of December 31, 2021, there are 8.0 million shares remaining under the repurchase authorization.

Performance Graph

The following graph shows a comparison of the cumulative total return for our common stock, the S&P 500 Index and the S&P North American Technology Sector Index from December 31, 2016 through December 31, 2021. The data for the S&P 500 Index and the S&P North American Technology Sector Index assumes reinvestment of dividends. The graph assumes an initial investment of $100, and the cumulative returns are based on the market price as of each year-end. Note that historic stock price performance is not necessarily indicative of future stock price performance.



*$100 invested on December 31, 2016 in Black Knight or each respective index, including reinvestment of dividends.

	December 31,				
	2017	2018	2019	2020	2021
Black Knight	$ 117	$ 119	$ 171	$ 234	$ 219
S&P 500 Index	$ 122	$ 116	$ 153	$ 181	$ 233
S&P North American Technology Sector Index	$ 138	$ 142	$ 202	$ 294	$ 371

Item 6. *[Reserved]*

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

The statements in the discussion and analysis regarding industry outlook, our expectations regarding the performance of our business, our liquidity and capital resources and the other non-historical statements are forward-looking statements. These forward-looking statements are subject to numerous risks and uncertainties, including, but not limited to, the risks and uncertainties described in "Risk Factors" and "Statement Regarding Forward-Looking Information." Our actual results may differ materially from those contained in or implied by the forward-looking statements. You should read the following discussion together with the sections entitled "Risk Factors," "Selected Historical Financial Data," "Liquidity and Capital Resources" and the consolidated financial statements and the related notes thereto included elsewhere in this Annual Report on Form 10-K.

Except as otherwise indicated or unless the context otherwise requires, all references to "Black Knight," the "Company," "we," "us" or "our" are to Black Knight, Inc., a Delaware corporation, and its subsidiaries ("BKI").

Overview

Black Knight is a premier provider of integrated, innovative, mission-critical, high-performance software solutions, data and analytics to the U.S. mortgage and real estate markets. Our mission is to transform the markets we serve by delivering innovative solutions that are integrated across the homeownership lifecycle and that result in realized efficiencies, reduced risk and new opportunities for our clients to help them achieve greater levels of success.

We believe businesses leverage our robust, integrated solutions across the entire homeownership lifecycle to help retain existing clients, gain new clients, mitigate risk and operate more efficiently. Our clients rely on our proven, comprehensive, scalable solutions and our unwavering commitment to delivering exceptional client support to achieve their strategic goals and better serve their customers.

We have a focused strategy of continuous innovation across our business supported by strategic acquisitions – and even more importantly, the integration of those innovations and acquisitions into our broader ecosystem. Our scale allows us to continually invest in our business, both to meet ever-changing industry requirements and to maintain our position as a leading provider of platforms for the mortgage and real estate markets.

Deep business and regulatory expertise and an unparalleled, holistic view of the markets we serve allow us the privilege of being a trusted advisor to our clients, who range from the nation's largest lenders and mortgage servicers to institutional portfolio managers and government entities, to individual real estate agents and mortgage brokers. Clients leverage our software ecosystem across a range of real estate and housing finance verticals through multiple digital channels, using our offerings to drive more business, reduce risk and deliver a best-in-class customer experience, all while operating more efficiently and cost-effectively.

The table below summarizes active first and second lien mortgage loans on our mortgage loan servicing software solution and the related market data, reflecting our leadership in the mortgage loan servicing software solutions market (in millions):

	First lien as of December 31,		Second lien as of December 31,		Total first and second lien as of December 31,	
	2021	2020	2021	2020	2021	2020
Active loans	33.4	32.4	3.2	3.5	36.6	35.9
Market size	53.2 (1)	53.4 (1)	12.2 (2)	12.6 (2)	65.4	66.0
Market share	63 %	61 %	26 %	28 %	56 %	54 %

(1) Estimates according to the Black Knight Mortgage Monitor Reports as of December 31, 2021 and 2020 for U.S. first lien mortgage loans. These estimates are subject to change.

(2) Estimates according to the January 2022 Equifax National Consumer Credit Trends Reports as of December 2021 and 2020 for U.S. second lien mortgage loans. These estimates are subject to revision.

We have long-standing relationships with our clients – a majority of whom enter into long-term contracts that include multiple, integrated products embedded into mission-critical, client-side workflow and decision processes. This speaks to the confidence our clients, which include some of the largest financial institutions in the world, have in our solutions and our commitment to serve them. The contractual nature of our revenues and stickiness of our client relationships make our revenues both highly visible and recurring in nature. Our scale and integrated ecosystem of solutions drive significant operating leverage and cross-sell opportunities, enabling our clients to continually benefit from new and greater operational efficiencies while simultaneously allowing us to generate strong margins and cash flows.

Our Markets

The Black Knight ecosystem stretches across four core “pillar” verticals: mortgage loan servicing, mortgage origination, capital markets and real estate; with our data and analytics flowing throughout and between the interconnected ecosystem of solutions. As we integrate our innovations and acquired technologies, we are committed to continually improving the end consumer experience, driving further efficiencies for our clients and helping them to win new customers and retain existing customers.

Recent Developments

On September 15, 2020, we completed a series of transactions and completed the acquisition of Optimal Blue, LLC (“Optimal Blue”). In connection with the acquisition of Optimal Blue, we contributed $762.0 million in cash and our Compass Analytics business to a newly formed entity, Optimal Blue Holdco, LLC (“Optimal Blue Holdco”), which was formed for the purpose of acquiring Optimal Blue and certain affiliates. As of December 31, 2021 and 2020, we owned 60% of Optimal Blue Holdco.

On February 15, 2022, we acquired the remaining Class A units of Optimal Blue Holdco from Cannae Holdings, LLC (“Cannae”) and affiliates of Thomas H. Lee Partners, L.P. (“THL”) in exchange for aggregate consideration of approximately 36.4 million shares of Dun & Bradstreet Holdings, Inc. (“DNB”) common stock and $433.5 million in cash, funded with borrowings on our revolving credit facility. The aggregate consideration and number of shares of DNB common stock paid to Cannae and THL was based on the 20-day volume-weighted average price of DNB common stock for the period ending on February 14, 2022. Refer to Note 2 — *Significant Accounting Policies and* Note 3 — *Business Acquisitions* to the Notes to Consolidated Financial Statements for additional information.

Business Trends and Conditions

Market Trends

Market trends that have spurred lenders and servicers to seek software, data and analytics solutions are as follows:

Integral role of technology in the U.S. mortgage loan industry. Over the past few years, the homebuyer’s processes have become more digital, and banks and other lenders and servicers have become increasingly focused on automation and workflow management to operate more efficiently and meet their regulatory requirements as well as using technology to enhance the consumer experience during the mortgage loan origination, closing and servicing processes. Since the start of the COVID-19 pandemic, our clients have become increasingly aware that digital solutions are integral to their ability to stay connected with their customer base in times when face-to-face interactions are not possible. We believe technology providers must be able to support the complexity and dynamic nature of the market, display extensive industry knowledge and possess the financial resources to make the necessary investments in technology and software to support lenders and servicers. This includes an enhanced digital experience along with the application of artificial intelligence, robotic process automation and adaptive learning.

Heightened demand for enhanced transparency and analytic insight. As U.S. mortgage loan market participants work to minimize the risk in lending, servicing and capital markets, they rely on the integration of data and analytics with solutions that enhance the decision-making process. These industry participants rely on large comprehensive third-party databases coupled with enhanced analytics to achieve these goals. The pandemic is putting pressure on the U.S. economy, affecting millions of American jobs and creating a high-level of uncertainty in the volume of work that our clients are facing with possible delinquent mortgage loans. Mortgage loan market participants are eager for timely data and insights to help them plan and react to the changing environment.

Regulatory changes and oversight. Most U.S. mortgage loan market participants are subject to a high level of regulatory oversight and regulatory requirements as federal and state governments have enacted various new laws, rules and regulations. It is our experience that mortgage lenders have become more focused on minimizing the risk of non-compliance with regulatory requirements and are looking toward solutions that assist them in complying with their regulatory requirements. We expect this trend to continue as additional governmental programs and regulations have been recently enacted to address the economic concerns resulting from the pandemic, and our clients have had to adapt their systems and processes in record time to the shifting landscape. In addition, our clients and our clients' regulators have elevated their focus on privacy and data security while many of our clients' employees are working from home and in light of an increased level of cybersecurity incidents. We expect the industry focus on privacy and data security to continue to increase.

Lenders increasingly focused on core operations. As a result of regulatory scrutiny, a decline in refinance origination volumes due to a rising interest rate environment and the higher cost of doing business, we believe lenders have become more focused on their core operations and customers. We believe lenders are increasingly shifting from in-house solutions to third-party solutions that provide a more comprehensive and efficient solution. Lenders require these providers to deliver best-in-class solutions and deep domain expertise and to assist them in maintaining regulatory compliance.

COVID-19 Pandemic and the Effect on Our Business

COVID-19 and the U.S.'s response to the pandemic are significantly affecting the mortgage and real estate industries. A moratorium on mortgage loan foreclosures and evictions and mortgage loan forbearance programs for certain borrowers that allowed mortgage loan payments to be suspended for up to 12 months were put in place. The federal moratoriums expired on July 31, 2021. However, the Consumer Financial Protection Bureau ("CFPB") amended the federal mortgage servicing regulations to support the housing market's smooth and orderly transition as federal foreclosure protections expire. The amendments established temporary safeguards to help prevent a surge of foreclosures and ensured that borrowers had time before foreclosure to explore their options. In addition, many states implemented additional guidance that extended their moratorium on mortgage loan foreclosures and evictions, and additional extensions of these moratoriums may be implemented in the future.

The extraordinary effects of the broad-based response to the COVID-19 pandemic have delayed the timing of certain revenues. Specifically, the mortgage loan foreclosure moratorium and forbearance plans have reduced the number of foreclosures being processed on our Bankruptcy^{SM}/Foreclosure^{SM} and Invoicing^{SM} software solutions for which revenue is recognized as transactions occur. The ultimate effect of the pandemic is uncertain and subject to change. We cannot currently predict the full extent of the effects on the economy, the markets we serve, our business or our operations.

Our Business Segments

Our business is organized into two segments: Software Solutions and Data and Analytics.

Software Solutions

Our Software Solutions segment offers software solutions that support loan servicing, loan origination and settlement services. Our software solutions revenues were 85%, 84% and 86% of our consolidated revenues for the years ended December 31, 2021, 2020 and 2019, respectively.

The following table summarizes our software solutions revenues (in millions):

	Year ended December 31,			% of segment revenues		
	2021	2020	2019	2021	2020	2019
Servicing software solutions	$ 838.9	$ 777.7	$ 815.5	67 %	75 %	81 %
Origination software solutions	411.1	262.5	196.8	33 %	25 %	19 %
Software Solutions	$ 1,250.0	$ 1,040.2	$ 1,012.3	100 %	100 %	100 %

Our servicing software solutions primarily include our core servicing software solution that automates loan servicing, including loan setup and ongoing processing, customer service, accounting, reporting to the secondary mortgage market and investors and web-based workflow information systems. Our servicing software solutions primarily generate revenues based on the number of active loans outstanding on our system, which has been very stable; however, we have some exposure to foreclosure and bankruptcy loan volumes, which can fluctuate based on economic cycles and other factors.

As a result of the effects of the broad-based response to the COVID-19 pandemic, we have seen lower foreclosure-related transactional revenues due to the mortgage loan foreclosure moratorium. We expect higher foreclosure-related transactional revenues in 2022 as a result of the expiration of the federal foreclosure moratorium. As of February 15, 2022, Black Knight's McDash^{SM} Flash Forbearance Tracker estimated 0.8 million homeowners, or 1.5% of all U.S. mortgage loans, were in COVID-19 mortgage loan forbearance plans.

Our origination software solutions primarily include our solutions that automate and facilitate the origination of mortgage loans and provide an interconnected network allowing the various parties and systems associated with lending transactions to exchange data quickly and efficiently. Our exposure to origination volumes is limited as our loan origination system revenues are based on closed loan volumes subject to minimum base software fees that are contractually obligated, and our secondary marketing technologies' revenues are primarily subscription-based. Some of our origination software solutions are exposed to variances in origination volumes, primarily related to refinance volumes due to the nature of the services provided. While we have seen elevated refinance origination volumes for a prolonged period of time, we expect to see lower refinance origination volumes in 2022 due to record volumes in prior years and a rising interest rate environment. We expect the effect of lower refinance origination volumes to be partially offset by higher purchase origination volumes based on the most recent Mortgage Bankers Association forecast for 2022. Our origination software solutions that are more sensitive to origination volumes were approximately 5% of our consolidated revenues for the year ended December 31, 2021.

Data and Analytics

Our Data and Analytics segment offers data and analytics solutions to the mortgage, real estate and capital markets verticals. These solutions include property ownership data, lien data, servicing data, automated valuation models, collateral risk scores, behavioral models, a multiple listing service software solution and other data solutions. Our data and analytics business is predominantly based on longer-term strategic data licenses, other data licenses and subscription-based revenues. Our data and analytics revenues were 15%, 16% and 14% of our consolidated revenues for the years ended December 31, 2021, 2020 and 2019, respectively. Our data and analytics solutions that are more sensitive to fluctuations in home buying activity and origination volumes were approximately 4% of our consolidated revenues for the year ended December 31, 2021 and relate to services where we provide data necessary for title insurance and other settlement service activities.

Regulatory Requirements

There continues to be a high level of legislative and regulatory focus on consumer protection practices. As a result, federal and state governments have enacted various new laws, rules and regulations. This has led banks and other lenders to seek software solutions that assist them in satisfying their regulatory compliance obligations in the face of a changing regulatory environment. We have developed solutions that target this need, which has resulted in additional revenues.

The CFPB has issued guidance that applies to "supervised service providers," which the CFPB has defined to include service providers, like us, to CFPB-supervised banks and non-banks. In addition, the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act") contains the Mortgage Reform and Anti-Predatory Lending Act that imposes additional requirements on lenders and servicers of residential mortgage loans. Future legislative or regulatory changes are difficult to predict, and new laws or regulations that may be implemented by the CFPB or other regulatory bodies may require us to change our business practices or incur increased costs to comply.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon audited consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles ("GAAP"). The preparation of these consolidated financial statements requires management to make estimates, judgments and assumptions that affect the reported amounts of assets and liabilities and disclosures with respect to contingent liabilities and assets at the date of the consolidated financial statements and the reported amounts of revenues and expenses during the reporting periods. Certain of our accounting policies and estimates require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. Our actual results may differ from those estimates. See Note 2 to the Notes to Consolidated Financial Statements for additional description of the significant accounting policies that have been followed in preparing our consolidated financial statements.

The accounting policies described below are those we consider to be the most critical to an understanding of our financial condition and results of operations and that require the most complex and subjective management judgment.

Revenue Recognition

At times, revenue recognition requires significant judgment, especially for our complex arrangements that include multiple performance obligations, or deliverables, such as arrangements that include the implementation of several software solutions over a period of time as well as post-implementation subscription fees and support for those solutions. The amount of revenues we recognize in a particular period depends on the value we allocate to the products and services delivered during that period. Our critical judgments for revenue recognition relate to (i) identifying performance obligations within the arrangement, including whether those obligations are distinct or should be combined; (ii) determining the standalone selling price ("SSP") for each performance obligation; and (iii) determining the effect of contract modifications.

Delivery of our primary software solutions is often considered a distinct performance obligation; however, certain agreements that include complex, proprietary implementation-related professional services require judgment to determine if the software solution and related implementation professional services should be combined into one performance obligation.

The SSP for many of our solutions and services is based on observable selling prices. However, when observable selling prices are not available, judgment and analysis is required to establish an estimated SSP through consideration of all reasonably available information, including market conditions, demands, trends, our specific factors and information about the client or class of client. The adjusted market approach is generally used when observable inputs are not available or limited.

Contract modifications require judgment to determine if the modification should be accounted for as (i) a separate contract, (ii) the termination of the original contract and creation of a new contract or (iii) a cumulative catch-up adjustment to the original contract. When evaluating contract modifications, we must identify the performance obligations of the modified contract and determine both the allocation of revenues to the remaining performance obligations and the period of recognition for each identified performance obligation.

Purchase Accounting

We are required to allocate the purchase price of acquired businesses to the tangible and intangible assets acquired and the liabilities assumed based on their estimated fair values, with the excess recorded as goodwill. We generally engage third-party valuation specialists to assist us in making fair value determinations. The third-party valuation specialists generally use discounted cash flow models, which require internally-developed assumptions, to determine the acquisition fair value of client relationship intangible assets and developed technology software assets. Assumptions for client relationship asset valuations generally include forecasted revenue attributable to existing customer contracts and relationships, estimated annual attrition, forecasted earnings before interest, taxes, depreciation and amortization margin and estimated weighted average cost of capital and discount rates. Assumptions for software asset valuations generally include forecasted revenue attributable to the software assets, obsolescence rates, estimated royalty rates and estimated weighted average cost of capital and discount rates. The forecasted financial performance used in the discounted cash flow models are critical accounting estimates in determining the fair value of customer relationships and software asset valuations as these estimates are influenced by many factors, including historical financial information and management's expectation for future operating results as a combined company.

If the initial accounting for a business combination is incomplete by the end of the reporting period during which the combination took place, we are required to record provisional amounts in our financial statements for items for which the accounting has not been completed. Measurement period adjustments to provisional purchase price allocations are recognized in the period in which they are determined, with the effect on earnings of changes in depreciation, amortization or other income resulting from such changes calculated as if the accounting had been completed on the acquisition date. Any new assets or liabilities identified during the measurement period are recognized as of the acquisition date. The measurement period ends the sooner of one year from the acquisition date or when we receive the information we were seeking about facts and circumstances that existed as of the acquisition date or learn that more information is not obtainable.

Refer to Note 3 to the Notes to Consolidated Financial Statements for discussion of our acquisitions during years ended December 31, 2021, 2020 and 2019.

Goodwill

Goodwill is tested for impairment annually or more frequently if circumstances indicate potential impairment, through a comparison of a reporting unit's fair value to its carrying value. Goodwill impairment assessments require a significant amount of management judgement, and a meaningful change in one or more of the underlying forecasts, estimates or assumptions used in testing goodwill for impairment could have a material impact on our results of operations and financial position. Our impairment test may first consider qualitative factors to determine whether it is more likely than not that a reporting unit's carrying amount exceeds its fair value. Qualitative factors include macroeconomic conditions, industry and market changes, our overall financial performance, changes in share price and other events or changes in circumstances that could negatively affect us. If the results of a qualitative assessment indicate a potential for impairment, a quantitative goodwill impairment test is performed. The quantitative process of determining whether or not an asset, such as goodwill, is impaired or recoverable relies on a weighted average of multiple valuation methods, primarily a combination of an income approach and a market approach. The income approach includes the present value of estimated future cash flows, while the market approach uses earnings multiples of similar guideline public companies or of similar guideline transactions. The income approach used to assess goodwill for impairment is a critical estimate because the forecasted growth rate assumptions underlying the estimated future cash flows is subject to management's judgement based upon the best available market information, internal forecasts and operating plans. A deterioration in this assumption could adversely impact our results of operations and financial position.

For the years ended December 31, 2021, 2020 and 2019, we performed a qualitative assessment for our annual goodwill impairment test, and we concluded that it is more likely than not that the fair value of each of our reporting units continued to exceed its respective carrying values.

Results of Operations

See Part II, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2020, filed with the SEC on February 26, 2021, for a discussion of our consolidated and segment results of operations for 2020 compared to 2019.

Key Performance Metrics

Revenues, EBITDA and EBITDA Margin for the Software Solutions and Data and Analytics segments are presented in conformity with ASC Topic 280, *Segment Reporting*. These measures are reported to the chief operating decision maker for purposes of making decisions about allocating resources to the segments and assessing their performance. For these reasons, these measures are excluded from the definition of non-GAAP financial measures under the Securities and Exchange Commission's ("SEC") Regulation G and Item 10(e) of Regulation S-K.

Consolidated Results of Operations

The following tables present certain financial data for the periods indicated (dollars in millions):

	Year ended December 31,		
	2021	2020	2019
Revenues	$ 1,475.2	$ 1,238.5	$ 1,177.2
Expenses:			
Operating expenses	793.9	669.6	646.0
Depreciation and amortization	365.0	270.7	236.2
Transition and integration costs	13.3	31.4	5.4
Total expenses	1,172.2	971.7	887.6
Operating income	303.0	266.8	289.6
Operating margin	*20.5 %*	*21.5 %*	*24.6 %*
Interest expense, net	(83.6)	(62.9)	(63.5)
Other (expense) income, net	(6.4)	16.4	(1.4)
Earnings before income taxes and equity in earnings (losses) of unconsolidated affiliates	213.0	220.3	224.7
Income tax expense	35.7	41.6	41.9
Earnings before equity in earnings (losses) of unconsolidated affiliates	177.3	178.7	182.8
Equity in earnings (losses) of unconsolidated affiliates, net of tax	2.6	67.1	(74.0)
Net earnings	179.9	245.8	108.8
Net losses attributable to redeemable noncontrolling interests	28.0	18.3	—
Net earnings attributable to Black Knight	$ 207.9	$ 264.1	$ 108.8
Net earnings per share attributable to Black Knight common shareholders:			
Diluted	$ 1.33	$ 1.73	$ 0.73
Weighted average shares of common stock outstanding:			
Diluted	155.8	152.9	148.6

Segment Financial Results

Revenues

We generate revenues through contractual arrangements we enter into with our clients to provide products or services either individually or in combination with one another as part of an integrated offering of multiple services. These arrangements occasionally include offerings from more than one segment to the same client.

The following table sets forth revenues by segment for the periods presented (in millions):

	Year ended December 31,		Variance	
	2021	2020	$	%
Software Solutions	$ 1,250.0	$ 1,040.2	$ 209.8	20 %
Data and Analytics	225.2	198.7	26.5	13 %
Corporate and Other(1)	—	(0.4)	0.4	NM
Total	$ 1,475.2	$ 1,238.5	$ 236.7	19 %

(1) Revenues for Corporate and Other represent deferred revenue purchase accounting adjustments recorded in accordance with GAAP.

Software Solutions

Our Software Solutions segment revenues are primarily derived from software solutions and professional services. Revenues from software solutions are typically volume-based agreements driven by factors such as the number of accounts processed, transactions processed and system resources utilized. Professional services consist of pre-implementation and post-implementation support and services and are primarily billed on a time and materials basis. Professional services may also include dedicated teams provided as part of agreements with software solutions clients.

Revenues were $1,250.0 million in 2021 compared to $1,040.2 million in 2020, an increase of $209.8 million, or 20%. Our servicing software solutions revenues increased 8%, or $61.2 million, primarily driven by revenues from new clients, higher usage-based revenues on MSP® and sales of new innovative solutions, partially offset by approximately $8 million of lower foreclosure-related revenues due to the foreclosure moratorium as part of the CARES Act. Our origination software solutions revenues increased 57%, or $148.6 million, primarily driven by revenues of $119.4 million related to acquired businesses, revenues from new clients, the network effect in Optimal Blue and innovation sales, partially offset by attrition.

Data and Analytics

Our Data and Analytics segment revenues are primarily derived from property ownership data, lien data, servicing data, automated valuation models, collateral risk scores, behavioral models, a multiple listing service software solution and other data solutions.

Revenues were $225.2 million in 2021 compared to $198.7 million in 2020, an increase of $26.5 million, or 13%. The increase was primarily driven by strong sales execution across nearly all business lines, revenues of $5.4 million related to acquired businesses and revenues from new innovation sales, partially offset by attrition.

EBITDA and EBITDA margin

The following tables set forth EBITDA (in millions) and EBITDA margin by segment for the periods presented:

	Year ended December 31,		Variance	
	2021	2020	$	%
Software Solutions	$ 713.7	$ 604.6	$ 109.1	18 %
Data and Analytics	80.2	64.8	15.4	24 %

	Year ended December 31,		Variance
	2021	2020	Basis points
Software Solutions	57.1 %	58.1 %	(100)
Data and Analytics	35.6 %	32.6 %	300

Software Solutions

EBITDA was $713.7 million in 2021 compared to $604.6 million in 2020, an increase of $109.1 million, or 18%, with an EBITDA margin of 57.1%, a decrease of 100 basis points from the prior year. The EBITDA margin decrease was driven by revenue mix and increased investments in innovation and client support.

Data and Analytics

EBITDA was $80.2 million in 2021 compared to $64.8 million in 2020, an increase of $15.4 million, or 24%, with an EBITDA margin of 35.6%, an increase of 300 basis points from prior year. The EBITDA margin increase was primarily driven by incremental margins on revenue growth.

Consolidated Financial Results

Operating Expenses

Operating expenses primarily include compensation costs, including equity-based compensation and benefits, hardware and software maintenance costs, software subscription costs, cloud computing costs, rent-related costs and professional services.

The following table sets forth operating expenses by segment for the periods presented (in millions):

	Year ended December 31,		Variance	
	2021	2020	$	%
Software Solutions	$ 536.3	$ 435.6	$ 100.7	23 %
Data and Analytics	145.0	133.9	11.1	8 %
Corporate and Other[(1)]	112.6	100.1	12.5	12 %
Total	$ 793.9	$ 669.6	$ 124.3	19 %

(1) Operating expenses for Corporate and Other include equity-based compensation, including certain related payroll taxes, of $42.9 million and $40.6 million in 2021 and 2020, respectively.

The increase in Operating Expenses was primarily driven by the effect of prior year acquisitions, higher net personnel expense, including higher medical costs, higher incentive compensation expense, including equity-based compensation, and software subscription and maintenance costs.

Depreciation and Amortization

Depreciation and amortization expense consists of our depreciation related to investments in property and equipment, including hardware, as well as amortization of purchased and developed software and other intangible assets, primarily client relationship assets recorded in connection with acquisitions. It also includes the amortization of deferred contract costs.

The following table sets forth Depreciation and amortization by segment for the periods presented (in millions):

	Year ended December 31,		Variance	
	2021	2020	$	%
Software Solutions	$ 131.1	$ 120.9	$ 10.2	8 %
Data and Analytics	15.5	15.1	0.4	3 %
Corporate and Other[1]	218.4	134.7	83.7	62 %
Total	$ 365.0	$ 270.7	$ 94.3	35 %

(1) Depreciation and amortization for Corporate and Other primarily represents net incremental depreciation and amortization adjustments associated with the application of purchase accounting recorded in accordance with GAAP.

The increase in Depreciation and amortization is primarily related to the amortization of acquired intangible assets from acquisitions.

Transition and Integration Costs

Transition and integration costs were $13.3 million in 2021 compared to $31.4 million in 2020. Transition and integration costs in 2021 primarily consisted of costs associated with acquisitions, including costs pursuant to purchase agreements, and expense reduction initiatives. Transition and integration costs in 2021 also include the reversal of $2.5 million of certain contingent consideration liabilities associated with prior years' acquisitions. Transition and integration costs in 2020 primarily consisted of costs associated with acquisitions, including transaction costs of $15.0 million related to the acquisition of Optimal Blue, and expense reduction initiatives.

Interest Expense, Net

Interest expense, net consists primarily of interest expense on our borrowings, payments on our interest rate swaps, amortization of our debt issuance costs and original issue discount, commitment fees on our revolving credit facility and administrative agent fees net of capitalized interest and interest income.

Interest expense, net was $83.6 million in 2021 compared to $62.9 million in 2020, an increase of $20.7 million, or 33%. The increase was primarily driven by our higher average outstanding debt balances primarily related to the Senior Notes issued by our indirect, wholly-owned subsidiary Black Knight InfoServ, LLC ("BKIS") and due in 2028, partially offset by lower interest rates.

Other Expense, Net

Other expense, net was $6.4 million in 2021 compared to Other income, net $16.4 million in 2020. The 2021 amounts primarily related to legal fees and the debt refinancing. The 2020 amounts primarily related to a recognized gain of $18.5 million for the resolution of a legacy legal matter.

Income Tax Expense

Income tax expense represents federal, state, local and foreign income taxes. Income tax expense was $35.7 million in 2021 compared to $41.6 million in 2020. Our effective tax rate was 16.8% in 2021 compared to 18.9% in 2020. Our effective tax rate for 2021 differs from the statutory rate of 21% primarily due to the effect of research and experimentation tax credits and the effect of excess tax benefits related to the vesting of restricted shares of our common stock. Our effective tax rate for 2020 differs from the statutory rate of 21% primarily due to the effect of return to provision adjustments, research and experimentation tax credits and the effect of excess tax benefits related to the vesting of restricted shares of our common stock. Refer to Note 18 to the Notes to Consolidated Financial Statements for more information related to the components of our effective tax rate.

Equity in Earnings of Unconsolidated Affiliates, Net of Tax

Equity in earnings of unconsolidated affiliates, net of tax primarily represents the effect of our investment in Dun & Bradstreet Holdings, Inc. ("DNB"), which is accounted for as an equity-method investment. Equity in earnings of unconsolidated affiliates, net of tax consists of the following (in millions):

	Year ended December 31,	
	2021	2020
Equity in losses of unconsolidated affiliates, net of tax	$ (7.3)	$ (26.1)
Non-cash gain related to DNB's issuance of common stock, net of tax	9.9	88.2
Sale of an equity method investment, net of tax	—	5.0
Equity in earnings of unconsolidated affiliates, net of tax	$ 2.6	$ 67.1

Refer to Note 4 to the Notes to Consolidated Financial Statements for more information related to our investment in DNB.

Liquidity and Capital Resources

Cash Requirements

Our primary sources of liquidity are our existing cash balances, cash flows from operations and borrowings on our revolving credit facility. On March 10, 2021, BKIS entered into an amended and restated credit agreement that extended the maturity of the facilities thereunder until March 2026 and delayed mandatory term loan payments until March 2022. Refer to Note 11 to the Notes to Consolidated Financial Statements included in Part II Item 8 of this Report, which is incorporated by reference into this Part II Item 7. As of December 31, 2021, we had cash and cash equivalents of $77.1 million, outstanding debt principal of $2,414.9 million and available capacity of $744.0 million on our revolving credit facility.

Our primary cash requirements include operating expenses, debt service payments (principal and interest), capital expenditures (including property, equipment and software expenditures) and tax-related payments and may include business acquisitions and share repurchases.

We believe that our cash flows from operations and available cash and cash equivalents are sufficient to meet our liquidity needs, including the repayment of our outstanding debt, for at least the next 12 months. We anticipate that to the extent that we require additional liquidity, it will be funded through borrowings on our revolving credit facility, the incurrence of other indebtedness, equity issuance or a combination thereof. The loss of the largest lender on our revolving credit facility would reduce our borrowing capacity by $90.0 million. Additionally, our liquidity and our ability to meet our obligations and fund our capital requirements are also dependent on our future financial performance, which is subject to general economic, financial and other factors that are beyond our control. Accordingly, we cannot be assured that our business will generate sufficient cash flows from operations or that future borrowings will be available from additional indebtedness or otherwise to meet our liquidity needs. Although we have no specific current plans to do so, if we decide to pursue one or more significant acquisitions, we may incur additional debt or sell additional equity to finance such acquisitions.

The CARES Act allows us to defer certain payments of our share of social security taxes until December 31, 2022. As of December 31, 2021, we have deferred $7.6 million of payments related to employer social security taxes.

DNB Investment

DNB is a leading global provider of business decisioning data and analytics. As of December 31, 2021, we owned 54.8 million shares of DNB common stock. As of December 31, 2021, our ownership interest in DNB was 12.8%, DNB's closing share price was $20.49 and the fair value of our investment in DNB was $1,123.9 million before tax. As of December 31, 2021, assuming a statutory tax rate of 25.3%, the estimated after-tax value of our investment in DNB is $964.2 million.

On February 15, 2022, we exchanged approximately 36.4 million shares of DNB common stock for a portion of the remaining Class A units in Optimal Blue Holdco we acquired from Cannae and THL. Following this transaction, we own 4.3%

of DNB's outstanding common stock with a fair value of $352.8 million based on the February 14, 2022 closing price of $19.10. Refer to Note 4 to the Notes to Consolidated Financial Statements included in Part II Item 8 of this Report, which is incorporated by reference into this Part II Item 7.

Cash Flows

The following table provides a summary of cash flows from operating, investing and financing activities (in millions):

	Year ended December 31,		
	2021	**2020**	**2021 v. 2020**
Cash flows provided by operating activities	$ 449.9	$ 415.4	$ 34.5
Cash flows used in investing activities	(429.8)	(2,089.2)	1,659.4
Cash flows provided by financing activities	22.3	1,693.1	(1,670.8)
Net increase in cash and cash equivalents	$ 42.4	$ 19.3	$ 23.1

Operating Activities

The $34.5 million increase in cash provided by operating activities in 2021 compared to 2020 is primarily related to higher earnings before non-cash adjustments, partially offset by higher commission payments, payments of previously deferred payroll taxes under the CARES Act and higher income tax payments.

Investing Activities

The $1,659.4 million decrease in cash used in investing activities in 2021 compared to 2020 is primarily related to the Optimal Blue acquisition and our investment in DNB in 2020, partially offset by our 2021 acquisitions.

Financing Activities

The $1,670.8 million decrease in cash provided by financing activities in 2021 compared to 2020 is primarily related to the August 2020 issuance by BKIS of $1.0 billion in aggregate principal amount of 3.625% senior unsecured notes due 2028, contributions from affiliates of Cannae and THL related to their redeemable noncontrolling interests in Optimal Blue Holdco, LLC and the issuance of shares of common stock in 2020, partially offset by net borrowings on our revolving credit facility and share repurchases in 2021.

Financing

For a description of our financing arrangements, see Note 11 to the Notes to Consolidated Financial Statements included in Part II Item 8 of this Report, which is incorporated by reference into this Part II Item 7.

Contractual Obligations

Our long-term contractual obligations generally include our debt and related interest payments, data processing and maintenance commitments and operating and finance lease payments for our offices, data centers, property and equipment. These long-term contractual obligations extend through 2028.

	Total	2022	2023	2024	2025	2026	Thereafter
				Payments due by period			
Debt[1]	$ 2,414.9	$ 32.7	$ 33.7	$ 57.5	$ 57.5	$ 1,233.5	$ 1,000.0
Interest on debt[2]	362.6	74.0	61.2	57.9	56.9	40.1	72.5
Software subscription, cloud computing and hardware and software maintenance agreements	126.7	58.9	54.1	13.2	0.5	—	—
Operating lease payments	38.9	10.9	9.1	8.1	3.3	2.8	4.7
Other[3]	8.6	1.9	1.9	1.9	1.9	0.6	0.4
Total	$ 2,951.7	$ 178.4	$ 160.0	$ 138.6	$ 120.1	$ 1,277.0	$ 1,077.6

(1) Includes finance lease obligations.
(2) These calculations include the effect of our interest rate swaps and assume that (a) applicable margins remain constant; (b) our term A loan and revolving credit facility variable rate debt is priced at the one-month LIBOR rate in effect as of December 31, 2021; (c) only mandatory debt repayments are made; and (d) no refinancing occurs at debt maturity.
(3) Other includes commitment fees on our revolving credit facility and rating agencies fees.

Share Repurchase Program

On February 12, 2020, our Board of Directors approved a three-year share repurchase program (“2020 Repurchase Program”) authorizing us to repurchase up to 10.0 million shares of our outstanding common stock through February 12, 2023, through open market purchases, negotiated transactions or other means, in accordance with applicable securities laws and other restrictions.

A summary of share repurchases under our 2020 Repurchase Program for the periods covered in this report is as follows (in millions, except for per share amounts):

Year	Total number of shares repurchased	Aggregate purchase price	Average price paid per share	Shares remaining under repurchase authorization as of December 31,
2021	2.0	$ 146.7	$ 73.91	8.0

We did not repurchase any shares under the 2020 Repurchase Program during the year ended December 31, 2020.

Indemnifications and Warranties

We often agree to indemnify our clients against damages and costs resulting from claims of patent, copyright, trademark infringement or breaches of confidentiality associated with use of our software through software licensing agreements. Historically, we have not made any payments under such indemnifications, but continue to monitor the conditions that are subject to the indemnifications to identify whether a loss has occurred that is both probable and estimable that would require recognition. In addition, we warrant to clients that our software operates substantially in accordance with the software specifications. Historically, no costs have been incurred related to software warranties and none are expected in the future, and as such, no accruals for warranty costs have been made.

Recent Accounting Pronouncements

See Note 2 to the Notes to Consolidated Financial Statements for a description of recent accounting pronouncements.

Item 7A. ***Quantitative and Qualitative Disclosure about Market Risk***

In the normal course of business, we are routinely subject to a variety of risks, as described in Item 1A. *Risk Factors* of Part I of this Report and in our other filings with the SEC.

The risks related to our business also include certain market risks that may affect our debt and other financial instruments. At present, we face the market risks primarily associated with interest rate movements on our outstanding debt.

Market Risk

We regularly assess market risks and have established policies and business practices designed to protect against the adverse effects of these exposures. We are exposed to market risks primarily from changes in interest rates. We use interest rate swaps to manage interest rate risk. We do not use interest rate swaps for trading purposes, to generate income or to engage in speculative activity. Our interest rate swaps represent our material off-balance sheet arrangements.

Interest Rate Risk

In addition to existing cash balances and cash provided by operating activities, we use fixed and variable rate debt to finance our operations.

Our Senior Notes represent our fixed-rate long-term debt. Refer to Note 11 to the Notes to Consolidated Financial Statements. The carrying value of our Senior Notes was $989.6 million, net of original issue discount and debt issuance costs, as of December 31, 2021. The fair value of our Senior Notes was approximately $1,002.5 million as of December 31, 2021. The potential reduction in fair value of the Senior Notes from a hypothetical 10 percent increase in market interest rates would not be material to the overall fair value of debt.

We enter into interest rate swap agreements to hedge forecasted monthly interest rate payments on our variable rate debt. We are exposed to interest rate risk on our debt obligations and related interest rate swaps. As of December 31, 2021, we had $1,406.0 million in long-term debt principal outstanding from our Facilities, as described in Note 11 to the Notes to Consolidated Financial Statements, all of which is variable rate debt.

As of December 31, 2021, the Facilities represent our long-term debt obligations exposed to interest rate risk. We performed a sensitivity analysis based on the principal amount of debt as of December 31, 2021, as well as the effect of our interest rate swaps. Further, in this sensitivity analysis, the change in interest rates is assumed to be applicable for an entire year. An increase of 100 basis points in the applicable interest rate would cause an increase in interest expense of $12.1 million on an annual basis ($7.1 million including the effect of our current interest rate swaps). A decrease in the applicable rate to 0% would cause a decrease in interest expense of $2.5 million on an annual basis ($1.3 million including the effect of our current interest rate swaps) as the 1-week and 1-month LIBOR were approximately 0.10% each as of December 31, 2021.

As of December 31, 2021, we have the following interest rate swaps agreements (collectively, the "Swap Agreements") (in millions):

Effective dates	Notional amount	Fixed rates
March 31, 2017 through March 31, 2022	$ 200.0	2.08 %
April 30, 2018 through April 30, 2023	$ 250.0	2.61 %
January 31, 2019 through January 31, 2023	$ 300.0	2.65 %

Under the terms of the Swap Agreements, we receive payments based on the 1-month LIBOR rate (approximately 0.10% as of December 31, 2021).

The Swap Agreements were designated as cash flow hedging instruments. A portion of the amount included in Accumulated other comprehensive loss is reclassified into Interest expense, net as a yield adjustment as interest payments are made on the hedged debt. The inputs used to determine the estimated fair value of our interest rate swaps are Level 2 inputs. We considered our own credit risk and the credit risk of the counterparties when determining the fair value of our Swap Agreements.

Item 8. ***Financial Statements and Supplementary Data***

BLACK KNIGHT, INC. AND SUBSIDIARIES
INDEX TO FINANCIAL STATEMENTS

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Black Knight, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited Black Knight, Inc. and subsidiaries' (the Company) 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 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.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2021 and 2020, the related consolidated statements of earnings and comprehensive earnings, equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements), and our report dated February 25, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ KPMG LLP

Jacksonville, Florida
February 25, 2022

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Black Knight, Inc.:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Black Knight, Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of earnings and comprehensive earnings, equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 25, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Investment in Star Parent, L.P.

As discussed in Note 4 to the consolidated financial statements, the Company made an investment in Star Parent, L.P., the ultimate parent of The Dun & Bradstreet Corporation, on February 8, 2019.

Acquisition of Optimal Blue, LLC

As discussed in Notes 2 and 3 to the consolidated financial statements, the Company acquired Optimal Blue, LLC on September 15, 2020.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of a critical audit matter 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 matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Assessment of revenue recognition for contracts with multiple performance obligations or modifications

As discussed in Notes 2 and 15 to the consolidated financial statements, the Company is often party to multiple concurrent contracts or contracts in which a customer may purchase a combination of products and services. For contracts with customers that contain various combinations of products and services, the Company must evaluate whether the promises within the contract are capable of being distinct and are distinct in the context of the contract. Distinct products and services are accounted for as separate performance obligations, while non-distinct products or services are combined with others to form a single performance obligation. Given the nature of the Company’s product and service offerings, there is complexity in determining whether the promises are separate performance obligations or a combined performance obligation. Further, arrangements with customers may change to reflect new pricing and/or scope of services. For contract modifications, the Company must assess the relevant facts and circumstances to determine if the contract should be accounted for as a separate contract, prospectively or through a cumulative catch-up adjustment. The identification of performance obligations, specifically for revenue contracts with professional services, as well as the determination as to whether a contract modification has occurred and the related accounting treatment, influence the amount and timing of revenue recognition.

We identified the assessment of revenue recognition for contracts with multiple performance obligations or modification as a critical audit matter. Specifically, the critical audit matter related to the Company’s identification of performance obligations for revenue contracts with professional services, the determination as to whether a contract modification occurred for certain contracts with customers and the resulting accounting treatment. This was due to the extensive audit effort and complex auditor judgment required to evaluate the Company’s contracts in these circumstances.

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 revenue recognition process. This included controls over the Company’s review of customer contracts for the identification of performance obligations, determination if a modification has occurred, and determination of the accounting treatment for contracts modifications. For selected new and modified revenue arrangements, we assessed the Company’s (1) identification of performance obligations, (2) identification of contract modifications, and (3) analysis of the accounting treatment for contract modification, by evaluating the Company’s analysis of the revenue arrangements as compared to the revenue recognition standard and the underlying contracts and/or statements of work. In addition, for a sample of professional services revenue transactions, we assessed the Company’s identification of distinct and non-distinct performance obligations by evaluating the Company’s analysis through comparison to contract source documents and correspondence or through involvement of information technology professionals in discussions with the Company’s product and service technicians.

/s/ KPMG LLP

We have served as the Company’s auditor since 2007.

Jacksonville, Florida
February 25, 2022

BLACK KNIGHT, INC.
Consolidated Balance Sheets
(In millions, except share data)

	December 31, 2021	December 31, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	$ 77.1	$ 34.7
Trade receivables, net	191.8	182.2
Prepaid expenses and other current assets	83.0	70.4
Receivables from related parties	0.2	—
Total current assets	352.1	287.3
Property and equipment, net	154.5	163.1
Software, net	497.0	498.3
Other intangible assets, net	613.2	692.3
Goodwill	3,817.3	3,613.4
Investments in unconsolidated affiliates	490.5	470.5
Deferred contract costs, net	196.0	172.3
Other non-current assets	230.3	193.3
Total assets	$ 6,350.9	$ 6,090.5
LIABILITIES AND EQUITY		
Current liabilities:		
Trade accounts payable and other accrued liabilities	$ 76.3	$ 88.1
Accrued compensation and benefits	91.4	79.3
Current portion of debt	32.5	73.0
Deferred revenues	64.6	50.9
Total current liabilities	264.8	291.3
Deferred revenues	81.5	92.7
Deferred income taxes	284.1	284.0
Long-term debt, net of current portion	2,362.6	2,121.9
Other non-current liabilities	78.7	94.9
Total liabilities	3,071.7	2,884.8
Commitments and contingencies (Note 13)		
Redeemable noncontrolling interests	1,188.8	578.0
Equity:		
Common stock; $0.0001 par value; 550,000,000 shares authorized; 160,040,598 shares issued and 155,357,705 shares outstanding as of December 31, 2021, and 160,085,413 shares issued and 157,014,712 shares outstanding as of December 31, 2020	—	—
Preferred stock; $0.0001 par value; 25,000,000 shares authorized; issued and outstanding, none as of December 31, 2021 and December 31, 2020	—	—
Additional paid-in capital	1,410.9	2,053.7
Retained earnings	968.2	757.4
Accumulated other comprehensive loss	(17.5)	(38.8)
Treasury stock, at cost, 4,682,893 shares as of December 31, 2021 and 3,070,701 shares as of December 31, 2020	(271.2)	(144.6)
Total shareholders' equity	2,090.4	2,627.7
Total liabilities, redeemable noncontrolling interests and shareholders' equity	$ 6,350.9	$ 6,090.5

See Notes to Consolidated Financial Statements.

BLACK KNIGHT, INC.
Consolidated Statements of Earnings and Comprehensive Earnings
(In millions, except per share data)

	Year ended December 31, 2021	2020	2019
Revenues	$ 1,475.2	$ 1,238.5	$ 1,177.2
Expenses:			
Operating expenses	793.9	669.6	646.0
Depreciation and amortization	365.0	270.7	236.2
Transition and integration costs	13.3	31.4	5.4
Total expenses	1,172.2	971.7	887.6
Operating income	303.0	266.8	289.6
Other income and expense:			
Interest expense, net	(83.6)	(62.9)	(63.5)
Other (expense) income, net	(6.4)	16.4	(1.4)
Total other expense, net	(90.0)	(46.5)	(64.9)
Earnings before income taxes and equity in earnings (losses) of unconsolidated affiliates	213.0	220.3	224.7
Income tax expense	35.7	41.6	41.9
Earnings before equity in earnings (losses) of unconsolidated affiliates	177.3	178.7	182.8
Equity in earnings (losses) of unconsolidated affiliates, net of tax	2.6	67.1	(74.0)
Net earnings	179.9	245.8	108.8
Net losses attributable to redeemable noncontrolling interests	28.0	18.3	—
Net earnings attributable to Black Knight	$ 207.9	$ 264.1	$ 108.8
Other comprehensive earnings (loss):			
Unrealized holding gains (losses), net of tax(1)	1.7	(23.9)	(18.0)
Reclassification adjustments for losses included in net earnings, net of tax(2)	15.3	12.2	—
Total unrealized gains (losses) on interest rate swaps, net of tax	17.0	(11.7)	(18.0)
Foreign currency translation adjustment, net of tax (3)	(0.4)	(0.1)	(0.1)
Unrealized gains (losses) on investments in unconsolidated affiliates, net of tax(4)	4.7	(6.8)	(3.4)
Other comprehensive earnings (loss)	21.3	(18.6)	(21.5)
Comprehensive earnings	201.2	227.2	87.3
Net losses attributable to redeemable noncontrolling interests	28.0	18.3	—
Comprehensive earnings attributable to Black Knight	$ 229.2	$ 245.5	$ 87.3
Net earnings per share attributable to Black Knight common shareholders:			
Basic	$ 1.34	$ 1.74	$ 0.74
Diluted	$ 1.33	$ 1.73	$ 0.73
Weighted average shares of common stock outstanding (see Note 5):			
Basic	155.1	152.0	147.7
Diluted	155.8	152.9	148.6

(1) Net of income expense of $0.6 million and net of income tax benefit of $8.1 million and $6.1 million for the years ended December 31, 2021, 2020 and 2019, respectively.

(2) Amounts reclassified to net earnings relate to losses on interest rate swaps and are included in Interest expense, net above. Amounts are net of income tax benefit of $5.2 million and $4.1 million for the years ended December 31, 2021 and 2020, respectively.

(3) Net of income tax benefit of less than $0.1 million for the years ended December 31, 2021, 2020 and 2019.

(4) Net of income tax expense of $1.6 million and net of income tax benefit of $2.3 million and $1.1 million for the years ended December 31, 2021, 2020 and 2019, respectively.

See Notes to Consolidated Financial Statements.

BLACK KNIGHT, INC.
Consolidated Statements of Equity
(In millions)

	Common stock		Additional paid-in capital	Retained earnings	Accumulated other comprehensive earnings (loss)	Treasury stock		Total Shareholders' equity
	Shares	$				Shares	$	
Balance, December 31, 2018	153.2	$ —	$ 1,585.8	$ 381.1	$ 0.3	3.9	$ (180.7)	$ 1,786.5
Effect of ASU 2018-02 adoption (Note 2)	—	—	—	(1.0)	1.0	—	—	—
Adjusted balance, January 1, 2019	153.2	—	1,585.8	380.1	1.3	3.9	(180.7)	1,786.5
Grant of restricted shares of common stock	—	—	(43.7)	—	—	(0.9)	43.7	—
Forfeitures of restricted shares of common stock	—	—	3.1	—	—	0.1	(3.1)	—
Tax withholding payments for restricted share vesting	(0.1)	—	(15.9)	—	—	—	—	(15.9)
Vesting of restricted shares granted from treasury stock	—	—	6.7	—	—	0.1	(6.7)	—
Purchases of treasury stock	—	—	—	—	—	0.2	(11.9)	(11.9)
Equity-based compensation expense	—	—	50.8	—	—	—	—	50.8
Net earnings	—	—	—	108.8	—	—	—	108.8
Foreign currency translation adjustment	—	—	—	—	(0.1)	—	—	(0.1)
Equity-based compensation expense of unconsolidated affiliates	—	—	—	1.7	—	—	—	1.7
Unrealized losses on interest rate swaps, net	—	—	—	—	(18.0)	—	—	(18.0)
Other comprehensive loss on investments in unconsolidated affiliates	—	—	—	—	(3.4)	—	—	(3.4)
Balance, December 31, 2019	153.1	$ —	$ 1,586.8	$ 490.6	$ (20.2)	3.4	$ (158.7)	$ 1,898.5

BLACK KNIGHT, INC.
Consolidated Statements of Equity - (Continued)
(In millions)

	Common stock Shares	Common stock $	Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Treasury stock Shares	Treasury stock $	Total shareholders' equity	Redeemable noncontrolling interests
Balance, December 31, 2019	153.1	$ —	$ 1,586.8	$ 490.6	$ (20.2)	3.4	$ (158.7)	$ 1,898.5	$ —
Effect of ASU 2016-13 adoption (Note 2)	—	—	—	(1.1)	—	—	—	(1.1)	—
Adjusted balance, January 1, 2020	153.1	—	1,586.8	489.5	(20.2)	3.4	(158.7)	1,897.4	—
Issuance of common stock, net of underwriters' discount and issuance costs	7.1	—	484.2	—	—	—	—	484.2	—
Grant of restricted shares of common stock	—	—	(24.9)	—	—	(0.5)	24.9	—	—
Forfeitures of restricted shares of common stock	—	—	0.6	—	—	—	(0.6)	—	—
Tax withholding payments for restricted share vesting	(0.1)	—	(22.4)	—	—	—	—	(22.4)	—
Vesting of restricted shares granted from treasury stock	—	—	10.2	—	—	0.2	(10.2)	—	—
Equity-based compensation expense	—	—	39.4	—	—	—	—	39.4	—
Contributions received for redeemable noncontrolling interests in Optimal Blue Holdco, LLC	—	—	—	—	—	—	—	—	578.0
Fair value adjustment to redeemable noncontrolling interests in Optimal Blue Holdco, LLC	—	—	(18.3)	—	—	—	—	(18.3)	18.3
Deferred income taxes recognized related to the contribution of Compass Analytics to Optimal Blue Holdco, LLC	—	—	(1.9)	—	—	—	—	(1.9)	—
Net earnings (loss)	—	—	—	264.1	—	—	—	264.1	(18.3)
Equity-based compensation expense of unconsolidated affiliates	—	—	—	3.8	—	—	—	3.8	—
Foreign currency translation adjustment	—	—	—	—	(0.1)	—	—	(0.1)	—
Unrealized losses on interest rate swaps, net	—	—	—	—	(11.7)	—	—	(11.7)	—
Other comprehensive loss on investments in unconsolidated affiliates	—	—	—	—	(6.8)	—	—	(6.8)	—
Balance, December 31, 2020	160.1	—	2,053.7	757.4	(38.8)	3.1	(144.6)	2,627.7	578.0
Fair value adjustment to redeemable noncontrolling interests in Optimal Blue Holdco, LLC	—	—	(638.8)	—	—	—	—	(638.8)	638.8
Grant of restricted shares of common stock	—	—	(35.3)	—	—	(0.7)	35.3	—	—
Forfeitures of restricted shares of common stock	—	—	3.0	—	—	—	(3.0)	—	—
Tax withholding payments for restricted share vesting	(0.1)	—	(25.6)	—	—	—	—	(25.6)	—
Vesting of restricted shares granted from treasury stock	—	—	12.2	—	—	0.3	(12.2)	—	—
Equity-based compensation expense	—	—	41.7	—	—	—	—	41.7	—
Net earnings (loss)	—	—	—	207.9	—	—	—	207.9	(28.0)
Equity-based compensation expense of unconsolidated affiliates	—	—	—	2.9	—	—	—	2.9	—
Purchases of treasury stock	—	—	—	—	—	2.0	(146.7)	(146.7)	—
Foreign currency translation adjustment	—	—	—	—	(0.4)	—	—	(0.4)	—
Unrealized gains on interest rate swaps, net	—	—	—	—	17.0	—	—	17.0	—
Other comprehensive gains on investments in unconsolidated affiliates	—	—	—	—	4.7	—	—	4.7	—
Balance, December 31, 2021	160.0	$ —	$ 1,410.9	$ 968.2	$ (17.5)	4.7	$ (271.2)	$ 2,090.4	$ 1,188.8

See Notes to Consolidated Financial Statements.

BLACK KNIGHT, INC.
Consolidated Statements of Cash Flows
(In millions)

	Year ended December 31, 2021	2020	2019
Cash flows from operating activities:			
Net earnings	$ 179.9	$ 245.8	$ 108.8
Adjustments to reconcile net earnings to net cash provided by operating activities:			
Depreciation and amortization	365.0	270.7	236.2
Amortization of debt issuance costs and original issue discount	3.9	3.4	2.9
Loss on extinguishment of debt	2.5	—	—
Deferred income taxes, net	(17.0)	(20.6)	(3.7)
Equity in (earnings) losses of unconsolidated affiliates, net of tax	(2.6)	(67.1)	74.0
Equity-based compensation	41.7	39.4	50.8
Changes in assets and liabilities, net of acquired assets and liabilities:			
Trade receivables, including receivables from related parties	(5.9)	6.0	5.9
Prepaid expenses and other assets	(42.5)	(3.6)	(0.6)
Deferred contract costs	(57.9)	(46.9)	(40.9)
Deferred revenues	(3.9)	(20.7)	(15.6)
Trade accounts payable and other liabilities	(13.3)	9.0	(39.5)
Net cash provided by operating activities	449.9	415.4	378.3
Cash flows from investing activities:			
Additions to property and equipment	(28.5)	(23.9)	(22.4)
Additions to software	(85.1)	(89.3)	(81.5)
Business acquisitions, net of cash acquired	(302.6)	(1,869.4)	(52.8)
Investment in Dun & Bradstreet Holdings, Inc. ("DNB")	—	(100.0)	(392.6)
Asset acquisitions	(10.0)	(15.0)	—
Other investing activities	(3.6)	8.4	(1.7)
Net cash used in investing activities	(429.8)	(2,089.2)	(551.0)
Cash flows from financing activities:			
Net proceeds from issuance of common stock, before offering expenses	—	484.6	—
Costs directly associated with issuance of common stock	—	(0.4)	—
Issuance of senior unsecured notes, net of original issue discount	—	990.0	—
Revolver borrowings	660.4	600.6	876.0
Revolver payments	(452.1)	(862.9)	(648.5)
Term loan borrowings	1.6	—	—
Term loan payments	—	(54.7)	(31.3)
Contributions received for redeemable noncontrolling interests	—	578.0	—
Purchases of treasury stock	(146.7)	—	(11.9)
Tax withholding payments for restricted share vesting	(25.6)	(22.4)	(15.9)
Finance lease payments	(3.6)	(13.0)	—
Debt issuance costs paid	(7.7)	(2.4)	—
Other financing activities	(4.0)	(4.3)	(0.6)
Net cash provided by financing activities	22.3	1,693.1	167.8
Net increase (decrease) in cash and cash equivalents	42.4	19.3	(4.9)
Cash and cash equivalents, beginning of period	34.7	15.4	20.3
Cash and cash equivalents, end of period	$ 77.1	$ 34.7	$ 15.4
Supplemental cash flow information:			
Interest paid, net	$ (80.4)	$ (46.8)	$ (59.9)
Income taxes paid, net	$ (52.7)	$ (52.5)	$ (51.6)

See Notes to Consolidated Financial Statements.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Except as otherwise indicated or unless the context otherwise requires, all references to "Black Knight," the "Company", "we," "us" or "our" are to Black Knight, Inc., a Delaware corporation ("BKI"), and its subsidiaries.

(1) Basis of Presentation

The accompanying audited consolidated financial statements were prepared in accordance with U.S. generally accepted accounting principles ("GAAP"), and all adjustments considered necessary for a fair presentation have been included. All significant intercompany accounts and transactions have been eliminated.

Description of Business

We are a premier provider of integrated, innovative, mission-critical, high-performance software solutions, data and analytics to the U.S. mortgage and real estate markets. Our mission is to transform the markets we serve by delivering innovative solutions that are integrated across the homeownership lifecycle and that result in realized efficiencies, reduced risk and new opportunities for our clients to help them achieve greater levels of success.

Reporting Segments

We conduct our operations through two reporting segments, (1) Software Solutions and (2) Data and Analytics. See further discussion in Note 20 — *Segment Information*.

Reclassifications

Reclassifications have been made to the prior year amounts to conform to the classifications used in 2021. Certain receivables previously included in Trade and other receivables, including receivables from related parties on our Consolidated Statements of Cash Flows are now included in Prepaid expenses and other assets. We also reclassified certain deferred compensation plan assets and liabilities between Prepaid expenses and other assets and Trade accounts payable and other liabilities on our Consolidated Statements of Cash Flows.

(2) Significant Accounting Policies

The following describes our significant accounting policies that have been followed in preparing the accompanying consolidated financial statements.

Principles of Consolidation

The consolidated financial statements include the accounts of BKI, its wholly-owned subsidiaries and non-wholly owned subsidiaries in which we have a controlling financial interest either through voting rights or means other than voting rights. Intercompany transactions and balances have been eliminated in consolidation. Where our ownership interest in a consolidated subsidiary is less than 100%, the noncontrolling interests' share of these non-wholly owned subsidiaries is reported in our consolidated balance sheets as a separate component of equity or within temporary equity. The noncontrolling interests' share of the net earnings (loss) of these non-wholly owned subsidiaries is reported in our Consolidated Statements of Earnings and Comprehensive Earnings as an adjustment to our net earnings to arrive at Net earnings attributable to Black Knight.

We consolidate variable interest entities ("VIEs") if we are considered the primary beneficiary because we have (a) the power to direct matters that most significantly impact the VIEs economic performance and (b) the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. For VIEs where we are not the primary beneficiary and do not control the VIE, but have the ability to exercise significant influence over the VIE, we use the equity method of accounting to report their results. The determination of the primary beneficiary involves judgment. Refer to the "Investments in Unconsolidated Affiliates" section below for additional information related to our equity method investments.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Optimal Blue Holdco, LLC ("Optimal Blue Holdco"), a non-wholly owned subsidiary, is considered a VIE. We are the primary beneficiary of Optimal Blue Holdco through our controlling interest and our rights established in the Amended and Restated Limited Liability Company Agreement of Optimal Blue Holdco dated September 15, 2020 (the "OB Holdco LLC Agreement"). The OB Holdco LLC Agreement was amended on November 24, 2020 to reflect the issuance of Class B units ("OB PIUs"), but this amendment did not affect the controlling interest and our rights established in the OB Holdco LLC Agreement. As such, we control Optimal Blue Holdco and its subsidiaries and consolidate its financial position and results of operations. Intercompany transactions between us and Optimal Blue Holdco and its subsidiaries are eliminated in consolidation. On February 15, 2022, we entered into an amended and restated OB Holdco LLC Agreement. Refer to the "Redeemable Noncontrolling Interests" section below and Note 3 — *Business Acquisitions* for additional information.

Management Estimates

The preparation of these consolidated financial statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the reported amounts of revenues and expenses during the reporting periods. Actual results could differ from our estimates.

Cash and Cash Equivalents

Highly liquid instruments purchased with original maturities of three months or less are considered cash equivalents. Cash equivalents are invested with high credit quality financial institutions and consist of short-term investments, such as demand deposit accounts, money market accounts, money market funds and time deposits. The carrying amounts of these instruments reported in the Consolidated Balance Sheets approximate their fair value because of their immediate or short-term maturities.

Cash and cash equivalents are unrestricted and include the following (in millions):

	December 31, 2021	December 31, 2020
Cash	$ 24.0	$ 27.1
Cash equivalents	53.1	7.6
Cash and cash equivalents	$ 77.1	$ 34.7

Trade Receivables, Net

A summary of Trade receivables, net of allowance for credit losses is as follows (in millions):

	December 31, 2021	December 31, 2020
Trade receivables — billed	$ 147.4	$ 136.4
Trade receivables — unbilled	47.1	47.9
Trade receivables	194.5	184.3
Allowance for credit losses	(2.7)	(2.1)
Trade receivables, net	$ 191.8	$ 182.2

Allowance for Credit Losses

We record our billed and unbilled trade receivables and contract assets at their amortized cost less an allowance for estimated credit losses that are not expected to be recovered over the assets' remaining lifetime based on management's expectation of collectability. We base our estimate on multiple factors including historical experience with bad debts, our relationship with our clients and their credit quality, the aging of respective asset balances, current macroeconomic conditions and management's expectations of conditions in the future. Our allowance for expected credit losses is based on management's assessment of the collectability of assets with similar risk characteristics. We pool our respective asset

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

balances based on risk characteristics primarily related to financial asset type, extent of client relationship, product/solution, business division and delinquency status.

Subsequent changes in the allowance are recorded in Operating expenses. We write off trade receivables in the period when the likelihood of collection of a trade receivable balance is considered remote.

The rollforward of allowance for credit losses for Trace Receivables, net is as follows (in millions):

	Year ended December 31,		
	2021	2020	2019
Beginning balance	$ (2.1)	$ (1.3)	$ (1.3)
Effect of ASU 2016-13 adoption(1)	—	(0.5)	—
Bad debt expense	(1.2)	(1.2)	(1.6)
Write-offs, net of recoveries	0.6	0.9	1.6
Ending balance	$ (2.7)	$ (2.1)	$ (1.3)

(1) On January 1, 2020, we adopted ASU 2016-13, *Financial Instruments — Credit Losses*, as well as several other related updates. Refer to section "Recent Accounting Pronouncements" below for details.

Prepaid Expenses and Other Current Assets

Prepaid expenses and other current assets consist of the following (in millions):

	December 31,	
	2021	2020
Prepaid expenses	$ 44.7	$ 39.7
Contract assets, net	23.0	20.9
Income tax receivables	6.5	2.1
Other current assets	8.8	7.7
Prepaid expenses and other current assets	$ 83.0	$ 70.4

Contract Assets

A contract asset represents our expectation of receiving consideration in exchange for products or services that we have provided to our client but invoicing is contingent on our completion of other performance obligations or contractual milestones. Contract assets and liabilities, or deferred revenues, are determined and presented on a net basis at the contract level since the rights and obligations in a contract with a client are interdependent. In contrast, a receivable is our right to consideration that is unconditional except for the passage of time required before payment of that consideration is due. The difference in timing of revenue recognition, billings and cash collections results in billed accounts receivable, unbilled receivables, contract assets and deferred revenues from client advances and deposits. We assess contract assets for impairment. There were no impairment charges related to contract assets for the years presented.

Our short-term contract assets are included in Prepaid expenses and other current assets in our Consolidated Balance Sheets. Our long-term contract assets are included in Other non-current assets in our Consolidated Balance Sheets. Refer to the section titled “Other Non-Current Assets” section below.

Property and Equipment, Net

Property and equipment, net is recorded at cost, less accumulated depreciation and amortization. Depreciation and amortization are computed using the straight-line method based on the following estimated useful lives of the related assets: 30 years for buildings and 3 to 7 years for furniture, fixtures and computer equipment. Leasehold improvements are amortized using the straight-line method over the lesser of the initial term of the respective lease or the estimated useful life of such asset.

Software, Net

Software, net includes internally developed software, purchased software, software acquired in business combinations and asset acquisitions, less accumulated amortization. Software acquired in business combinations is recorded at its fair value and amortized using the straight-line method over its remaining estimated useful life. Purchased software is recorded at cost and amortized using the straight-line method over its estimated useful life. The useful life of software acquired in business combinations and purchased software ranges from 3 to 10 years.

Internal development costs are accounted for in accordance with ASC Topic 985, *Software*, Subtopic 20, *Costs of Software to Be Sold, Leased, or Marketed*, or ASC Topic 350, *Intangibles - Goodwill and Other*, Subtopic 40, *Internal-Use Software*. Judgment is required in determining the classification of our development costs under these two topics, especially for development of new software products in which marketing strategies may still be in development. We may rely on past practice in cases where that provides the best evidence.

For software products to be sold, leased or marketed, all costs incurred to establish technological feasibility are research and development costs and are expensed as they are incurred. Costs incurred subsequent to establishing technological feasibility, such as programmers' salaries, related payroll costs and costs of independent contractors, are capitalized and amortized on a product-by-product basis commencing on the date of general release to clients. We do not capitalize any costs once the product is available for general release to clients. Judgment is required in determining when technological feasibility of a product is established. The timing of when various research and development projects become technologically feasible or ready for release can cause fluctuations in the amount of research and development costs that are expensed or capitalized in any given period. Generally, we amortize capitalized costs on a straight-line basis. However, we use an accelerated amortization method equal to the ratio of revenues generated by the software solution in the current year as a percentage of the estimated current and future revenues over its estimated useful life if that ratio is greater than the percentage to be amortized using the straight-line method.

For internal-use software products, internal and external costs incurred during the preliminary project stage are expensed as they are incurred. Internal and external costs incurred during the application development stage are capitalized and amortized commencing on the date the product is ready for its intended use. We do not capitalize any costs once the software is ready for its intended use.

Amortization expense for software is recorded using the straight-line method over the software's estimated useful life, generally ranging from 5 to 10 years.

Other Intangible Assets, Net

Other intangible assets, net consist primarily of client relationships that are recorded in connection with acquisitions at their fair value based on the results of a valuation analysis, less accumulated amortization. Intangible assets, other than those with indefinite lives, are amortized over their estimated useful lives ranging from 3 to 10 years from the acquisition date using either a straight-line or accelerated method. Client relationships are amortized using an accelerated method that takes into consideration expected client attrition rates over a period of up to 10 years from the acquisition date.

Our property records database, which is an intangible asset not subject to amortization, is reviewed for impairment at least annually and is included in Other non-current assets in our Consolidated Balance Sheets. Refer to section "Other Non-Current Assets" below.

Impairment Testing

Long-lived assets, including property and equipment, software and other intangible assets with definite useful lives are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of assets to be held and used is measured by comparison of the carrying amount of an asset to estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future cash flows, an impairment charge is recognized in the amount by which the carrying amount of the asset exceeds the fair value of the asset. We did not have any events or circumstances indicating impairment of our long-lived assets for the years presented.

Goodwill

Goodwill represents the excess of cost over the fair value of identifiable assets acquired and liabilities assumed in business combinations. Goodwill is not amortized and is tested for impairment annually, or more frequently if circumstances indicate potential impairment, through a comparison of fair value to the carrying amount. Goodwill is tested for impairment at the reporting unit level. In evaluating the recoverability of goodwill, we consider the amount of excess fair value over the carrying value of each reporting unit, the period of time since a reporting unit's last quantitative test, and other factors to determine whether to perform a qualitative test. When performing an annual goodwill impairment analysis based on a review of qualitative factors, we evaluate if events and circumstances exist that lead to a determination that the fair value of each reporting unit is more likely than not greater than its carrying amount. If we conclude that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we perform a quantitative impairment test. The quantitative test includes determining the fair value of a reporting unit based on a weighted average of multiple valuation methods, primarily a combination of an income approach and a market approach, which are Level 3 and Level 2 inputs, respectively. The income approach includes the present value of estimated future cash flows, while the market approach uses earnings multiples of similar guideline public companies or of similar guideline industry transactions. If the fair value of a reporting unit exceeds its carrying amount, goodwill is not impaired and further testing is not required. We did not have any events or circumstances indicating impairment of our goodwill during the years presented.

Investments in Unconsolidated Affiliates

Investments in entities that we have the ability to exercise significant influence over, but not control, are accounted for using the equity method of accounting. Under the equity method of accounting, investments are recorded at the initial cost and are adjusted for subsequent additional investments and our share of earnings or losses and distributions. We record our share of equity-based compensation expense of unconsolidated affiliates as an adjustment to our investment with a related adjustment to our equity.

Star Parent, L.P. ("Star Parent"), a former non-wholly owned subsidiary (and former parent of Dun & Bradstreet Holdings, Inc. ("DNB")), was considered a VIE. For the 2019 and 2020 periods in which we had a minority interest in Star Parent, we were a limited partner and did not have the power to direct the activities that most significantly affected Star Parent's economic performance. We did not provide any implicit or explicit liquidity guarantees or principal value guarantees to Star Parent. For these reasons, we were not the primary beneficiary and accounted for our investment using the equity method of accounting. Our investment in Star Parent was recorded within Investments in unconsolidated affiliates on our Consolidated Balance Sheets, and related earnings and losses were recorded in Equity in earnings (losses) of unconsolidated affiliates, net of tax in our Consolidated Statements of Earnings and Comprehensive Earnings.

On July 6, 2020, our investment in Star Parent was exchanged for an investment in DNB in conjunction with their initial public offering ("DNB IPO"). We own less than 20% of DNB but are considered to have the ability to exercise significant influence, but not control, primarily through a combination of our investment in DNB, an agreement with certain other DNB investors pursuant to which we agreed to collectively vote together on matters related to the election of DNB directors for a period of three years following the DNB IPO and our shared Chief Executive Officer. For these reasons, we accounted for our investment using the equity method of accounting. Our investment in DNB is recorded within Investments in unconsolidated affiliates on our Consolidated Balance Sheets, and related earnings and losses are recorded in Equity in earnings (losses) of unconsolidated affiliates, net of tax in our Consolidated Statements of Earnings and Comprehensive Earnings. Refer to Note 4 – *Investments in Unconsolidated Affiliates* for additional information.

Deferred Contract Costs, Net

We capitalize incremental contract acquisition costs that relate directly to an existing contract or a specific anticipated contract and are expected to be recovered. Costs that would have been incurred regardless of whether the contract was obtained are expensed as incurred. As a practical expedient, we expense incremental costs of obtaining a contract if the amortization period of the asset would be one year or less.

We also consider whether to capitalize costs to fulfill a contract that may be incurred before we commence performance on an obligation. These costs represent incremental, recoverable external costs and certain internal costs that are directly related to the contract and are primarily associated with costs of resources involved in installation of systems, processes and data conversion.

Deferred contract costs are amortized on a systematic basis consistent with the transfer to the client of the solutions or services to which the asset relates. We consider the explicit term of the contract with the client, expected renewals and the rate of change related to our solutions in determining the amortization period, which ranges from 5 to 10 years.

In the event indications exist that a deferred contract cost asset related to a particular contract may not be recoverable, undiscounted estimated cash flows of the total period over which economic benefits for providing the related products or services are expected to be received are projected and compared to the unamortized deferred contract cost balance. If the projected cash flows and any unrecognized revenues are not adequate to recover the unamortized cost, an impairment charge would be recorded to reduce the carrying amount to the contract’s net realizable value, including any termination fees provided for under the contract, in the period such a determination is made.

Amortization expense for deferred contract costs is included in Depreciation and amortization in our Consolidated Statements of Earnings and Comprehensive Earnings. Refer to the "Depreciation and Amortization" section below.

Leases

We determine if an arrangement is a lease at contract inception. Right-of-use assets represent our right to use an underlying asset for the lease term, and lease liabilities represent our obligation to make lease payments according to the arrangement. Operating and finance lease right-of-use assets and lease liabilities are recognized as of the commencement date based on the present value of the lease payments over the lease term. We use the implicit rate when it is readily determinable. Otherwise, we use our incremental borrowing rate based on the information available as of the commencement date in determining the present value of lease payments. The lease term we use for the valuation of our right-of-use assets and lease liabilities may include options to extend or terminate the lease when it is reasonably certain that we will exercise those options. Lease expense is recognized on a straight-line basis over the expected lease term. From time to time, we may abandon one or more of our leased assets. Upon abandonment, we accelerate the amortization of right-of-use assets within lease expense.

Right-of-use assets and lease liabilities are recognized for our leases. Right-of-use assets for our operating leases are included in Other non-current assets in our Consolidated Balance Sheets. Refer to the “Other Non-Current Assets” section below. Right-of-use assets for our finance leases are included in Property and equipment, net in our Consolidated Balance Sheets. Refer to Note 7 — *Property and Equipment*. For discussion of our operating and finance lease liabilities refer to Note 11 — *Long-Term Debt* and Note 14 — *Leases*.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Other Non-Current Assets

Other non-current assets consist of the following (in millions):

	December 31, 2021	December 31, 2020
Contract assets, net	$ 80.2	$ 56.5
Property records database	60.6	60.5
Right-of-use assets	32.9	41.1
Deferred compensation plan related assets	25.2	19.5
Contract credits	23.6	5.0
Prepaid expenses	4.5	4.9
Other	3.3	5.8
Other non-current assets	$ 230.3	$ 193.3

Trade Accounts Payable and Other Accrued Liabilities

Trade accounts payable and other accrued liabilities consist of the following (in millions):

	December 31, 2021	December 31, 2020
Accrued interest	$ 12.3	$ 12.8
Income taxes payable	11.8	13.6
Lease liabilities, current	10.8	13.5
Trade accounts payable	7.9	8.9
Other taxes payable and accrued	4.8	10.7
Accrued client liabilities	3.8	6.4
Other	24.9	22.2
Trade accounts payable and accrued liabilities	$ 76.3	$ 88.1

Deferred Revenues

Deferred revenues, or contract liabilities, represent our obligation to transfer products or services to our client for which we have received consideration, or an amount of consideration is due, from the client. During the years ended December 31, 2021, 2020 and 2019, revenues recognized related to the amount included in the Deferred revenues balance at the beginning of each year were $48.9 million, $49.5 million and $55.9 million, respectively.

Other Non-Current Liabilities

Other non-current liabilities consist of the following (in millions):

	December 31, 2021	December 31, 2020
Lease liabilities, non-current (Note 14)	$ 26.4	$ 29.7
Deferred compensation plan	24.4	19.3
Unrealized losses on interest rate swaps (Note 11)	13.9	35.2
Other	14.0	10.7
Other non-current liabilities	$ 78.7	$ 94.9

Loss Contingencies

ASC Topic 450, *Contingencies,* requires that we accrue for loss contingencies associated with outstanding litigation, claims and assessments, as well as unasserted claims for which management has determined it is probable that a loss contingency exists and the amount of loss can be reasonably estimated. Refer to Note 13 — *Commitments and Contingencies*. Legal fees are expensed as incurred.

Redeemable Noncontrolling Interests

Redeemable noncontrolling interests represent the collective 40% equity interest in Optimal Blue Holdco owned by Cannae Holdings, LLC ("Cannae") and affiliates of Thomas H. Lee Partners, L.P. ("THL"). As these redeemable noncontrolling interests provide for redemption features not solely within our control, they are presented on our Consolidated Balance Sheets outside of shareholders' equity. We recognize any changes in the redemption price related to these redeemable noncontrolling interests as they occur through Additional paid-in capital.

We had call rights on THL's and Cannae's equity interests in Optimal Blue Holdco that were exercisable beginning September 15, 2023 at a call price equal to the greater of (i) the fair market value of such interests and (ii) an amount that would result in the multiple of THL's or Cannae's return on investment to equal 2.0, as applicable. In addition, THL and Cannae had the right to put their respective interests in Optimal Blue Holdco at a price equal to the fair market value of such interests to (i) Optimal Blue Holdco if there was a change of control of Black Knight or (ii) Optimal Blue Holdco, Black Knight Technologies ("BKT") or Black Knight that were exercisable beginning September 15, 2023.

On February 15, 2022, we entered into a purchase agreement with Cannae and THL and acquired all of their issued and outstanding Class A units of Optimal Blue Holdco through Optimal Blue I, LLC ("Optimal Blue I"), a Delaware limited liability company and our wholly-owned subsidiary, in exchange for aggregate consideration of approximately 36.4 million shares of DNB common stock and $433.5 million in cash, funded with borrowings under our revolving credit facility. The aggregate consideration of $1.156 billion and number of shares of DNB common stock paid to Cannae and THL was based on the 20-day volume-weighted average trading price of DNB for the period ended on February 14, 2022. As of February 15, 2022, we own 100% of the issued and outstanding Class A units of Optimal Blue Holdco.

Treasury Shares

Shares held in treasury are at cost. We charge the cost in excess of par value to Retained earnings when we cancel or retire treasury shares.

Revenues

We recognize revenues primarily relating to software and hosting solutions, professional services and data solutions. We are often party to multiple concurrent contracts or contracts that combine multiple solutions and services. These situations require judgment to determine if multiple contracts should be combined and accounted for as a single arrangement. In making this determination, we consider (i) the economics of each individual contract and whether or not it was negotiated on a standalone basis and (ii) if multiple promises represent a single performance obligation. Many times these arrangements include offerings from more than one segment to the same client.

At contract inception, we assess the performance obligations, or deliverables, we have agreed to provide in the contract and determine if they are individually distinct or if they should be combined with other performance obligations. We combine performance obligations when an individual performance obligation does not have standalone value to our client. For example, we typically combine the delivery of complex, proprietary implementation-related professional services with the delivery of the related software solution.

Contract modifications require judgment to determine if the modification should be accounted for as (i) a separate contract, (ii) the termination of the original contract and creation of a new contract or (iii) a cumulative catch-up adjustment to the original contract. When evaluating contract modifications, we must identify the performance obligations of the modified contract and determine both the allocation of revenues to the remaining performance obligations and the period of recognition for each identified performance obligation.

We include any fixed consideration within our contracts as part of the total transaction price. Generally, we include an estimate of the variable amount within the total transaction price and update our assumptions over the duration of the contract. We do not include taxes collected from clients and remitted to governmental authorities. The transaction price is allocated to our performance obligations in proportion to their relative standalone selling prices (“SSP”). SSP is the price for which we would sell a distinct solution or service separately to a client and is determined at contract inception. For a majority of our revenues, we have observable selling prices for our related solutions and services. However, if observable selling prices are not available, establishing SSP requires significant judgment. The estimated SSP considers all reasonably available information, including market conditions, demands, trends, our specific factors and information about the client or class of client. The adjusted market approach is generally used for new solutions and services or when observable inputs are limited or not available.

The following describes the nature of our primary sources of revenue and the related revenue recognition policies:

Software Solutions Revenues

Software solutions revenues are primarily comprised of software as a service (“SaaS”) offerings for various platforms that perform processing and workflow management as well as provide data and analytics. To a lesser extent, we sell software licenses where hosting services may or may not be included in the arrangement. Contracts for software and hosting solutions typically span five to seven years.

For our SaaS offerings, we promise our clients to stand ready to provide continuous access to our processing platforms and perform an unspecified quantity of processing services for a specified term. For this reason, processing services are generally viewed as a stand-ready performance obligation comprised of a series of distinct daily services. We typically satisfy these performance obligations over time as the services are provided. A time-elapsed output method is used to measure progress because our efforts are expended evenly throughout the period given the nature of the promise is a stand-ready service. We evaluate our variable payment terms related to these revenues, and they generally meet the criteria for allocating variable consideration entirely to one or more, but not all, performance obligations in a contract. Accordingly, when the criteria are met, variable amounts based on the number and type of services performed during a period are allocated to and recognized on the day in which we perform the related services. Fixed fees for processing services are generally recognized ratably over the contract period.

Our software licenses generally have significant standalone functionality to our clients upon delivery. Our software licenses are generally considered distinct performance obligations, and revenue allocated to the software license is typically recognized at a point in time upon delivery of the license.

In conjunction with software licenses, we commonly provide our clients with additional services such as maintenance as well as associated implementation and other professional services related to the software license. Maintenance is typically comprised of technical support and unspecified updates and upgrades. We generally satisfy these performance obligations evenly using a time-elapsed output method over the contract term given there is no discernible pattern of performance. When a software license contract also includes professional services that provide significant modification or customization of the software license, we combine the software license and professional services into a single performance obligation, and revenues for the combined performance obligation are recognized as the professional services are provided consistent with the methods described below for professional services revenues.

We have contracts where the licensed software is offered in conjunction with hosting services. The licensed software may be considered a separate performance obligation from the hosting services if the client can take possession of the software during the contractual term without incurring a significant penalty and if it is feasible for the client to run the software on its own infrastructure or hire a third party to host the software. If the licensed software and hosting services are separately identifiable, license revenue is recognized when the hosting services commence and it is within the client's control to obtain a copy of the software, and hosting revenue is recognized using the time-elapsed output method as the service is provided. If the software license is not separately identifiable from the hosting service, then the related revenues for the combined performance obligation is recognized ratably over the hosting period.

Professional Services Revenues

Professional services revenues are generally comprised of implementation, conversion, programming, training and consulting services associated with our SaaS and licensed software agreements. Professional services such as training, dedicated teams and consulting services are generally distinct. Distinct professional services revenues are primarily billed on a time and materials basis, and revenues are recognized over time as the services are performed. A portion of our professional services revenues are derived from contracts for dedicated personnel resources who are often working full-time at a client site and under the client's direction. These revenues generally recur as contracts are renewed.

In assessing whether implementation services provided on SaaS or licensed software agreements are a distinct performance obligation, we consider whether the services are both capable of being distinct (i.e., the client can benefit from the services alone or in combination with other resources that are readily available to the client) and distinct within the context of the contract (i.e., separately identifiable from the other performance obligations in the contract). Professional services that are not distinct from an associated solution or offering are recognized over the common measure of progress for the overall performance obligation (typically a time-elapsed output measure that corresponds to the period over which the solution or offering is made available to the client).

Data Solutions Revenues

Revenues from data solutions are primarily from licenses for new and historical property ownership data and valuation-related analytical services and are generally distinct. License fees are recognized at a point in time upon delivery. Revenues allocated to data updates are recognized ratably over the period the updates are provided. In addition, to the extent that we provide continuous access to data through a hosted software platform, we recognize revenues ratably over the contract term.

Operating Expenses

Operating expenses include all costs, excluding depreciation and amortization, incurred by us to produce revenues. Operating expenses primarily include compensation costs, including equity-based compensation and benefits, software and hardware maintenance costs, professional services fees, rent-related costs, software subscription costs and cloud computing costs. Equity-based compensation is included within Corporate and Other in Note 20 — *Segment Information*.

General and administrative expenses, which are primarily included in Operating expenses within Corporate and Other in Note 20 — *Segment Information*, include compensation costs, including benefits and equity-based compensation, professional services fees, insurance, rent-related costs, software subscription costs and other costs associated with the enterprise risk, finance, human resources, marketing, legal and other support functions.

Equity-Based Compensation

We expense employee equity-based payments under ASC Topic 718, *Compensation—Stock Compensation*, which requires compensation cost, measured using the grant date fair value of equity-based payments, to be recognized over the requisite service period, which generally equals the vesting period. For awards with a performance condition, we recognize compensation cost under the graded vesting method over the requisite service period of the award, which at times results in accelerated recognition of the cost. We do not recognize compensation cost if the performance condition is not considered probable of achievement. If at any point we determine that the performance condition is improbable of achievement, we reverse any previously recognized compensation cost for that award.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

The fair value of our restricted stock awards is measured based on the closing market price of our stock on the grant date. The fair value of OB PIUs is measured using the Black-Scholes model. Income tax effects of awards are recorded in our Consolidated Statements of Earnings and Comprehensive Earnings when the awards vest or are settled. We account for forfeitures as they occur. Refer to Note 16 — *Equity* for more information.

Depreciation and Amortization

Depreciation and amortization includes the following (in millions):

	Year ended December 31,		
	2021	2020	2019
Other intangible assets	$ 159.1	$ 86.6	$ 59.3
Software	131.3	110.4	97.3
Property and equipment	40.4	39.8	36.7
Deferred contract costs	34.2	33.9	42.9
Total	$ 365.0	$ 270.7	$ 236.2

Deferred contract costs amortization for the years ended December 31, 2021, 2020 and 2019 includes accelerated amortization of $0.5 million, $0.1 million and $6.2 million, respectively.

Transition and Integration Costs

Transition and integration costs represent costs primarily associated with acquisitions, including costs pursuant to purchase agreements and expense reduction initiatives.

Interest Expense, Net

Interest expense, net consists primarily of interest expense on our borrowings, amortization of our debt issuance costs and original issue discount, payments on our interest rate swaps, commitment fees on our revolving credit facility and administrative agent fees net of capitalized interest and interest income. Debt issuance costs are amortized using the effective interest method over the expected repayment period of the debt.

Income Taxes

Black Knight is treated as a corporation under applicable federal and state income tax laws. We are subject to income tax in the U.S. and certain state jurisdictions in which we operate and record the tax effects as a part of the tax accounting process of preparing the consolidated financial statements. Our India subsidiary is subject to income tax in India.

The tax accounting process involves calculating current tax expense together with assessing basis differences resulting from differing recognition of items for income tax and GAAP accounting purposes. These differences result in current and deferred income tax assets and liabilities, which are included within the Consolidated Balance Sheets. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable earnings in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred taxes of changes in tax rates and laws in future periods, if any, is reflected in the consolidated financial statements in the period enacted. We must then assess the likelihood that deferred income tax assets will be recovered from future taxable earnings and, to the extent we believe that recovery is not likely, establish a valuation allowance. We believe that based on our historical pattern of taxable earnings, projections of future earnings, tax planning strategies, reversing taxable timing differences and other relevant evidence, we will produce sufficient earnings in the future to realize recorded deferred income tax assets. To the extent we establish a valuation allowance or increase an allowance in a period, we would reflect the increase as expense within Income tax expense in the Consolidated Statements of Earnings and Comprehensive Earnings.

Determination of income tax expense requires estimates and can involve complex issues that may require an extended period to resolve. Further, the estimated level of annual earnings before income tax can cause the overall effective income tax rate to vary from period to period. We believe our tax positions comply with applicable tax law, and we adequately provide for any known tax contingencies. Final determination of prior-year tax liabilities, either by settlement with tax authorities or expiration of statutes of limitations, could be materially different than estimates reflected in assets and liabilities and historical income tax expense. The outcome of these final determinations could have a material effect on our income tax expense, net earnings or cash flows in the period that determination is made.

We record interest and penalties related to income taxes, if any, as a component of Income tax expense on the Consolidated Statements of Earnings and Comprehensive Earnings.

Refer to Note 18 — *Income Taxes* for additional information.

Earnings Per Share

Basic net earnings per share is computed by dividing Net earnings attributable to Black Knight by the weighted-average number of shares of common stock outstanding during the period. Diluted net earnings per share includes the effect of unvested restricted stock awards, restricted stock unit awards (“RSUs”) and OB PIUs. Refer to Note 5 — *Earnings Per Share* for more information.

Business Acquisitions

We include the results of operations of acquired businesses beginning on the respective acquisition dates. The purchase price is allocated to the tangible and intangible assets acquired and the liabilities assumed based on their estimated fair values at the acquisition date, with the excess recorded as goodwill. Measurement period adjustments to provisional purchase price allocations are recognized in the period in which they are determined, with the effect on earnings of changes in depreciation, amortization or other income resulting from such changes calculated as if the accounting had been completed on the acquisition date. Acquisition-related costs are expensed as incurred.

The fair value of the acquired Software and Other intangible assets are primarily determined using a third-party valuation based on significant estimates and assumptions, including Level 3 inputs, which are judgmental in nature. These estimates and assumptions include the projected timing and amount of future cash flows and discount rates reflecting the risk inherent in the future cash flows.

Recent Accounting Pronouncements

Recently Adopted Pronouncements

In June 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-13, *Financial Instruments—Credit Losses,* as well as several other related updates, which were codified as ASC Topic 326, *Financial Instruments - Credit Losses ("ASC 326")*. The new standard requires companies to immediately recognize an estimate of credit losses expected to occur over the remaining life of the financial assets included in the scope of this standard. Our financial assets that are included in the scope of these updates are primarily trade receivables and contract assets. The primary effect of adopting the new standard relates to the changes in our estimated credit losses and providing additional disclosures about our financial assets that are included in the scope of this new standard. We adopted ASC 326 on January 1, 2020 using a modified retrospective approach. The effect of this adoption was an adjustment of $1.1 million, net of tax, to our opening Retained earnings on our Consolidated Statements of Equity.

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*. This update requires contract assets and contract liabilities acquired in business combinations to be recognized and measured in accordance with ASC Topic 606, *Revenues from Contracts with Customers*. It is expected that an acquirer will generally recognize and measure acquired contract assets and contract liabilities in a manner consistent with how the acquiree recognized and measured them in its pre-acquisition financial statements. This update is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2022 with early adoption permitted, including in an interim period. We early adopted this update in the fourth quarter of 2021 and applied its amendments to each of our 2021 acquisitions. This update did not have a material effect on our consolidated financial statements and related disclosures.

In February 2018, the FASB issued ASU 2018-02, *Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income*. This update allowed a reclassification from Accumulated other comprehensive earnings to Retained earnings for stranded tax effects resulting from the Tax Cuts and Jobs Act of 2017 ("Tax Reform Act"). We adopted this update on January 1, 2019 and reclassified $1.0 million from Accumulated other comprehensive (loss) earnings to Retained earnings.

Not Yet Adopted Pronouncements

In January 2021, the FASB issued ASU 2021-01, *Reference Rate Reform (Topic 848): Scope*. This update expands the scope of ASC Topic 848, *Reference Rate Reform*, to include derivative contracts that reference interest rates other than LIBOR. This update gives market participants the ability to apply certain aspects of contract modification and hedge accounting expedients to derivative contracts affected by the accounting transition. This update is available for adoption through December 31, 2022 for all entities and does not apply to contract modifications made, as well as new hedging relationships entered into, after December 31, 2022, and to existing hedging relationships evaluated for effectiveness for periods after December 31, 2022, with certain exceptions. We currently do not have derivative contracts that reference interest rates other than LIBOR. We do not expect the adoption of this update to have a material effect on our consolidated financial statements and related disclosures.

(3) Business Acquisitions

2021 Acquisitions

On March 16, 2021, we completed the acquisition of the technology assets and business of NexSpring Financial, LLC (“NexSpring”), which is reported within our Software Solutions segment, and is expected to broaden our ability to serve mortgage brokers.

On May 17, 2021, we completed the acquisition of 100% of the equity interests in eMBS, Inc. (“eMBS”), a leading data and analytics aggregator for residential mortgage-backed securities, which is reported within our Data & Analytics segment, and is expected to solidify and further expand our market leadership in solutions and data for agency-backed securities.

On July 7, 2021, we completed the acquisition of 100% of the equity interests in TOMN Holdings, Inc. and its subsidiaries (“Top of Mind”), which is reported within our Software Solutions segment. Top of Mind is the developer of Surefire℠, a leading customer relationship management and marketing automation system for the mortgage industry.

2020 Acquisitions

On March 3, 2020, we completed the acquisition of Collateral Analytics, LLC (“Collateral Analytics”), a provider of real estate products and tools to support appraisers, appraisal management companies, lenders, investors and government agencies. Collateral Analytics is reported within our Data and Analytics segment because it enhances our real estate solutions and automated valuation model offerings.

On August 27, 2020, we completed the acquisition of DocVerify, a solution that provides proof of the integrity of digital documents, enabling organizations across a wide range of industries to streamline processes, safeguard sensitive information and reduce costs. DocVerify is reported within our Software Solutions segment and helps accelerate Black

Knight's goal of digitizing the entirety of the real estate and mortgage continuum as DocVerify's trusted and proven digital document verification capabilities are integrated with Expedite®Close, our digital closing platform.

On July 26, 2020, we entered into a definitive equity purchase agreement with affiliates of private equity firm GTCR, LLC, to purchase Optimal Blue, a leading provider of secondary market solutions and actionable data services. We also entered into forward purchase agreements with Cannae and affiliates of THL (collectively, the "FPAs"), whereby Cannae and affiliates of THL agreed to each acquire 20% of the equity interests of a newly formed entity, Optimal Blue Holdco, for a purchase price of $289.0 million. Optimal Blue Holdco was formed for the purpose of acquiring Optimal Blue.

On September 15, 2020, we completed a series of transactions and completed the acquisition of Optimal Blue. In connection with the acquisition of Optimal Blue, we contributed $762.0 million in cash and Compass Analytics, LLC ("Compass Analytics") to Optimal Blue Holdco. In addition, Black Knight InfoServ, LLC ("BKIS"), our indirect, wholly-owned subsidiary, provided $500.0 million in cash in exchange for a note with Optimal Blue Holdco (the "OB Holdco Note"). The OB Holdco Note bears interest at a rate of 6.125%, which is payable on a semi-annual basis beginning March 1, 2021, and matures on September 1, 2028. Immediately prior to the closing of the Optimal Blue acquisition, we, together with BKT, our indirect, wholly-owned subsidiary, Optimal Blue Holdco, Cannae and THL, entered into the OB Holdco LLC Agreement. As of December 31, 2021, we owned 60% of Optimal Blue Holdco.

Optimal Blue is reported within our Software Solutions segment because it enhances our robust set of software solutions and includes additional product, pricing and eligibility capabilities. On February 15, 2022, we acquired the remaining outstanding Class A units in Optimal Blue Holdco. Refer to Note 2 — *Significant Accounting Policies* for additional information.

2019 Acquisition

On September 13, 2019, we completed the acquisition of Compass Analytics, a financial technology provider of advanced pricing and valuation solutions to support loan officers and capital market professionals. Compass Analytics is reported within our Software Solutions segment because this acquisition expands our footprint in capital markets, adds mortgage servicing rights valuation capabilities to our solutions and establishes end-to-end connectivity and pricing between originators and mortgage investors.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Allocation of purchase price

The following table summarizes the total purchase price consideration and the fair value amounts recognized for the assets acquired and liabilities assumed, including the effect of measurement period adjustments, (in millions):

	2021 Acquisitions	2020 Optimal Blue[(2)]	2020 Other Acquisitions	2019 Acquisition[(4)]
Cash paid	$ 307.6	$ 1,828.3	$ 74.1	$ 55.0
Contingent consideration[(1)]	4.4	—	3.1	9.0
Less: cash acquired	(5.0)	(29.3)	(3.7)	(2.2)
Total consideration, net	$ 307.0	$ 1,799.0	$ 73.5	$ 61.8
Software	$ 34.9	$ 79.7	$ 8.2	$ 9.4
Other intangible assets[(3)]	80.0	610.8	18.1	21.4
Goodwill	212.0	1,197.9	46.9	31.7
Other current and non-current assets	4.3	24.8	4.1	4.4
Total assets acquired	331.2	1,913.2	77.3	66.9
Deferred income taxes	15.8	93.5	—	—
Current and other non-current liabilities	8.4	20.7	3.8	5.1
Total liabilities assumed	24.2	114.2	3.8	5.1
Net assets acquired	$ 307.0	$ 1,799.0	$ 73.5	$ 61.8

(1) The NexSpring purchase agreement requires us to pay additional cash consideration based on NexSpring revenues recognized over the three-year period subsequent to the acquisition. The Collateral Analytics purchase agreement requires us to pay additional cash consideration based on earnings before interest expense, income tax provision and depreciation and amortization ("EBITDA") over a three-year period beginning April 1, 2020. The Compass Analytics purchase agreement required us to pay additional cash consideration based on revenues recognized over a two-year period from the acquisition date. We recorded a contingent consideration liability of $9.0 million as part of the Compass Analytics acquisition. During 2020, an agreement related to the Compass Analytics contingent consideration payout was amended to a set contractual amount.

In accordance with ASC Topic 805, Business Combinations ("ASC 805"), we will recognize the majority of the consideration as compensation cost over the related period due to ongoing employment requirements. Refer to Note 12 – *Fair Value Measurement* for additional information.

(2) During the year ended December 31, 2021, we recorded a measurement period adjustment of $8.1 million primarily reducing deferred income taxes for certain book and tax basis differences as we completed the tax return filings for the pre-acquisition period.

(3) Other intangible assets primarily consist of client relationships assets of $76.3 million for the 2021 acquisitions, $602.5 million for the 2020 Optimal Blue acquisition, $16.4 million for the Other 2020 acquisitions and $19.1 million for the 2019 acquisition.

(4) During the year ended December 31, 2020, we recorded a measurement period adjustment of $0.9 million to reduce our estimated liabilities for pre-acquisition tax exposure.

The estimates related to our 2021 acquisitions are preliminary and subject to adjustments as we complete our valuation process with respect to certain acquired assets, including Software, Other intangible assets, including client relationship assets, and Goodwill and certain assumed liabilities, including estimated liabilities for pre-acquisition tax exposure, and contingent consideration.

For the years ended December 31, 2021, 2020 and 2019 we incurred direct transaction costs of $3.8 million, $15.0 million and $0.2 million in connection with our 2021 acquisitions, the acquisition of Optimal Blue in 2020 and our 2019 acquisition, respectively. Transaction costs are included in Transition and integration costs on the Consolidated Statements of Earnings and Comprehensive Earnings.

For the period September 15, 2020 through December 31, 2020, Optimal Blue's revenues of $37.6 million and pre-tax loss of $19.0 million are included in our Consolidated Statements of Earnings and Comprehensive Earnings.

Unaudited Pro Forma Results

Our 2021 acquisitions, 2020 acquisitions excluding Optimal Blue and 2019 acquisition were not material individually or in the aggregate to our consolidated financial statements.

Unaudited pro forma results of operations for the years ended December 31, 2020 and 2019, assuming the Optimal Blue acquisition had occurred as of January 1, 2019, are presented below (in millions, except per share amounts):

	Year ended December 31,	
	2020	2019
Revenues	$ 1,320.0	$ 1,267.3
Net earnings	$ 200.6	$ 4.3

The unaudited pro forma results include certain pro forma adjustments that were directly attributable to the acquisition, assuming the acquisition had occurred on January 1, 2019, including the following:

- additional amortization expense that would have been recognized relating to the acquired intangible assets;
- adjustments to interest expense to reflect the additional debt we incurred related to partially finance the acquisition; and
- a reduction of expenses for acquisition-related transaction costs of $15.0 million for the year ended December 31, 2020.

(4) Investments in Unconsolidated Affiliates

DNB Investment

On February 8, 2019, concurrent with an investment consortium's acquisition of The Dun & Bradstreet Corporation, we completed our $375.0 million investment in Star Parent, L.P. ("Star Parent"), a Delaware limited partnership (the "February 2019 D&B Investment"), which we funded through a borrowing on our revolving credit facility. On July 1, 2019, we invested an additional $17.6 million in Star Parent (together with the February 2019 D&B Investment, collectively, the "D&B Investment") in exchange for our pro-rata share of additional limited partner interests issued by Star Parent related to D&B's acquisition of Lattice Engines, Inc.

In connection with the D&B Investment, we were issued certain limited partner interests in Star Parent, which represented approximately 18.1% of the outstanding common equity of Star Parent.

DNB IPO and Private Placement

DNB is a leading global provider of business decisioning data and analytics. On July 6, 2020, DNB, previously a wholly-owned subsidiary of Star Parent, closed its previously announced initial public offering of 90.0 million shares of common stock, which included 11.7 million shares of common stock issued pursuant to the exercise by the underwriters of their option to purchase additional shares in full (the "DNB IPO"). The DNB IPO was priced at $22.00 per share, resulting in gross proceeds to DNB of $2.4 billion when combined with $400.0 million of aggregate proceeds from a concurrent private placement offering (the "DNB Private Placement") and before deducting underwriting discounts and commissions and other offering expenses payable by DNB. Shares of DNB common stock began trading on the New York Stock Exchange ("NYSE") under the ticker symbol "DNB" on July 1, 2020.

On July 6, 2020, we invested $100.0 million in the DNB Private Placement. In connection with the closing of the DNB IPO and the DNB Private Placement, our limited partner interests in Star Parent were exchanged for 54.8 million shares of DNB common stock (the "DNB Investment"), which represented ownership of 13.0% of DNB.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

On January 8, 2021, DNB completed its acquisition of Bisnode Business Information Group AB (the "Bisnode acquisition"). In connection with the Bisnode acquisition, DNB issued 6.2 million shares of common stock, which resulted in a decrease in our ownership interest in DNB to 12.8%.

As of December 31, 2021, we have invested an aggregate of $492.6 million in DNB. As of December 31, 2021, DNB's closing share price was $20.49, and the fair value of our investment in DNB was $1,123.9 million before tax.

Summarized consolidated financial information for DNB (Successor) and Star Parent (Predecessor) is presented below (in millions):

	December 31, 2021	December 31, 2020
Current assets	$ 718.0	$ 874.4
Non-current assets	9,279.2	8,345.9
Total assets	$ 9,997.2	$ 9,220.3
Current liabilities, including short-term debt	$ 1,004.9	$ 828.1
Non-current liabilities	5,247.0	4,808.3
Total liabilities	6,251.9	5,636.4
Total equity	3,745.3	3,583.9
Total liabilities and shareholders' equity	$ 9,997.2	$ 9,220.3

	Year ended December 31, 2021	Year ended December 31, 2020	For the period February 8 to December 31, 2019
Revenues	$ 2,165.6	$ 1,738.7	$ 1,413.9
Loss before provision (benefit) for income taxes and equity in net income of affiliates	$ (45.2)	$ (226.4)	$ (540.0)
Net loss	$ (65.9)	$ (111.6)	$ (425.8)
Net loss attributable to DNB (Successor)/ Star Parent (Predecessor)	$ (71.7)	$ (180.6)	$ (546.3)

The effective tax rate of DNB for the year ended December 31, 2021 differed by more than 5% from the applicable statutory federal income tax rate of 21.0%, 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 and the impact of state apportionment changes to DNB's net U.S. deferred taxes as a result of their corporate headquarters move to Florida. The effective tax rate of DNB for the year ended December 31, 2020 differed by more than 5% from the applicable statutory federal income tax rate of 21.0%, primarily due to the impact of the CARES Act.

Effective January 1, 2021, DNB eliminated the one-month reporting lag for its subsidiaries outside North America and aligned the fiscal year-end for all of its subsidiaries to December 31. DNB applied this change in their accounting policy retrospectively. The effect of this change in accounting policy did not have a material impact to our results of operations or financial condition and is included in our accounting for our investment in DNB for the year ended December 31, 2021. The summarized consolidated financial information above was derived from DNB's audited consolidated financial statements as of and for the years ended December 31, 2021 and 2020, and from the audited consolidated financial statements of Star Parent as of December 31, 2019 and for the period February 8 to December 31, 2019, and includes the effect of their change in accounting policy.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Equity in earnings (losses) of unconsolidated affiliates, net of tax consists of the following (in millions):

	Year ended December 31,		
	2021	2020	2019
Equity in losses of unconsolidated affiliates, net of tax	$ (7.3)	$ (26.1)	$ (74.0)
Non-cash gain related to DNB's issuance of common stock, net of tax	9.9	88.2	—
Sale of an equity method investment, net of tax[(1)]	—	5.0	—
Equity in earnings (losses) of unconsolidated affiliates, net of tax	$ 2.6	$ 67.1	$ (74.0)

(1) On May 15, 2020, we sold our interest in an equity method investment and recognized a gain of $5.0 million, net of tax, which is included in Equity in earnings (losses) of unconsolidated affiliates, net of tax in our Consolidated Statements of Earnings and Comprehensive Earnings for the year ended December 31, 2020. In connection with the sale, we received $8.4 million in cash at closing and recorded a receivable of $1.8 million. In June 2021, we received the remaining $1.8 million. The original investment was not material to Black Knight.

On February 15, 2022, we exchanged approximately 36.4 million shares of DNB common stock in connection for a portion of the remaining Class A units in Optimal Blue Holdco we acquired from Cannae and THL. Following this transaction, we own approximately 4.3% of DNB's outstanding common stock with a fair value of $352.8 million based on the February 14, 2022 closing stock price of $19.10. Refer to Note 2 — *Significant Accounting Policies* for additional information.

(5) Earnings Per Share

Diluted net earnings per share include the effect of unvested restricted stock awards, restricted stock unit awards ("RSUs") and Optimal Blue Holdco profit interest units ("OB PIUs"). In 2020, the outstanding OB PIUs were excluded from the diluted earnings per share calculations because the effect of their inclusion was antidilutive. The following table sets forth the computation of basic and diluted earnings per share (in millions, except per share amounts):

	Year ended December 31,		
	2021	2020	2019
Basic:			
Net earnings attributable to Black Knight	$ 207.9	$ 264.1	$ 108.8
Shares used for basic net earnings per share:			
Weighted average shares of common stock outstanding	155.1	152.0	147.7
Basic net earnings per share	$ 1.34	$ 1.74	$ 0.74
Diluted:			
Net earnings attributable to Black Knight	$ 207.9	$ 264.1	$ 108.8
Shares used for diluted net earnings per share:			
Weighted average shares of common stock outstanding	155.1	152.0	147.7
Dilutive effect of unvested restricted shares of common stock and OB PIUs	0.7	0.9	0.9
Weighted average shares of common stock, diluted	155.8	152.9	148.6
Diluted net earnings per share	$ 1.33	$ 1.73	$ 0.73

(6) Related Party Transactions

Our service arrangements with related parties are priced within the range of prices we offer to third parties, except for certain corporate services provided to Fidelity National Financial, Inc. and its subsidiaries ("FNF") and DNB and certain corporate services provided by FNF, which are at cost. However, the amounts we earned or that were charged under these arrangements were not negotiated at arm's length and may not represent the terms that we might have obtained from an unrelated third party.

DNB

DNB is considered to be a related party primarily due to the combination of our investment in DNB and our shared Chief Executive Officer. Refer to Note 4 — *Investments in Unconsolidated Affiliates* for additional details.

In June 2021, we entered into a five-year agreement with DNB to provide certain products and data over the term of the agreement, as well as professional services, for an aggregate fee of approximately $34 million over the term of the agreement. As of December 31, 2021, related party deferred revenues were $7.6 million, of which $6.2 million is included in Deferred revenues (current) and $1.4 million is included in Deferred revenues (non-current) in our Consolidated Balance Sheets. During the year ended December 31, 2021, revenues from related parties of $2.9 million are included in our Consolidated Statements of Earnings and Comprehensive Earnings.

In June 2021, we also entered into an agreement with DNB for access to certain of their data assets for an aggregate fee of approximately $24 million over the term of the agreement. In addition, we will jointly market certain solutions and data. Related party prepaid fees were $2.3 million as of December 31, 2021, which are included in Prepaid expenses and other current assets on the Consolidated Balance Sheets. During the year ended December 31, 2021, expenses from related parties of $2.3 million are included in Operating expenses in our Consolidated Statements of Earnings and Comprehensive Earnings.

In 2020, we entered into a services agreement with DNB. The agreement is cancellable upon mutual agreement. Pursuant to the agreement, we provide DNB certain support services in exchange for fees in an amount of our cost plus a 10% markup. As of December 31, 2020, we had related party receivable of less than $0.1 million from DNB. During the years ended December 31, 2021 and 2020, the services provided were less than $0.1 million, respectively.

As of December 31, 2021 we had related party receivable of $0.2 million from DNB.

Trasimene

During the year ended December 31, 2020, we entered into a non-exclusive advisory services agreement with Trasimene Capital Management, LLC ("Trasimene") for services that may include evaluating, negotiating and closing various acquisition, financing and strategic corporate transactions. Transaction fees for services provided are primarily based on the size of the transaction and do not exceed market rates.

Prior to June 16, 2021, Trasimene was considered a related party because the former Chairman of our Board of Directors (the “Board”) owns a controlling interest in Trasimene. As of June 16, 2021, our former Chairman retired from the Board and became our Chairman Emeritus, and Trasimene is no longer considered a related party.

During the period January 1, 2021 through June 16, 2021 and the year ended December 31, 2020, we recognized $0.5 million and $8.3 million in fees to Trasimene, respectively, for assistance with acquisitions, which are included in Transition and integration costs in our Consolidated Statements of Earnings and Comprehensive Earnings.

FNF

We are party to certain agreements with FNF, including agreements that were entered into when we were related parties, to provide software, data and analytics services, as well as corporate shared services and information technology. We are also a party to certain other agreements under which we incur other expenses or receive revenues from FNF. As a result of the spin-off from FNF on September 29, 2017 (the "Distribution"), FNF and Black Knight are separate independent companies. FNF no longer has an ownership interest in us, but was still considered a related party until December 1, 2019 due to the combination of certain shared board members, members of senior management and various agreements. As of December 1, 2019, the former Chairman of our Board, who also serves as the Chairman of FNF’s Board of Directors, no longer serves as one of our executive officers, and FNF is no longer considered a related party.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

A summary of the revenues and expenses, net from FNF for the period we were related parties is as follows (in millions):

	For the period January 1 to November 30, 2019
Revenues	$ 59.5
Operating expenses	12.5

(7) Property and Equipment

Property and equipment, net consist of the following (in millions):

	December 31, 2021	December 31, 2020
Computer equipment	$ 256.6	$ 238.3
Buildings and improvements	90.5	84.8
Furniture, fixtures and other equipment	12.1	12.4
Land	11.9	11.9
Leasehold improvements	9.8	7.5
Property and equipment	380.9	354.9
Accumulated depreciation and amortization	(226.4)	(191.8)
Property and equipment, net	$ 154.5	$ 163.1

(8) Software

Software, net consists of the following (in millions):

	December 31, 2021	December 31, 2020
Internally developed software	$ 1,123.6	$ 998.5
Purchased software	94.3	89.8
Software	1,217.9	1,088.3
Accumulated amortization	(720.9)	(590.0)
Software, net	$ 497.0	$ 498.3

In the fourth quarter of 2019, we entered into agreements to acquire software in exchange for a combination of cash consideration and certain of our products and services. The software was acquired for $32.0 million, of which $6.5 million was received as of December 31, 2019 and resulted in non-cash investing activity of $4.8 million for the year ended December 31, 2019. Software valued at $25.5 million was received in the first quarter of 2020 and resulted in non-cash investing activity of $10.5 million for the year ended December 31, 2020.

Estimated amortization expense on software for the next five fiscal years is as follows (in millions):

2022[(1)]	$ 139.8
2023	136.4
2024	82.5
2025	64.4
2026	36.7

(1) Assumes assets not in service as of December 31, 2021 are placed in service equally throughout the year.

(9) Other Intangible Assets

Other intangible assets consist of the following (in millions):

	December 31, 2021			December 31, 2020		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Client relationships	$ 1,282.2	$ (680.6)	$ 601.6	$ 1,206.0	$ (525.9)	$ 680.1
Other	22.5	(10.9)	11.6	19.2	(7.0)	12.2
Total intangible assets	$ 1,304.7	$ (691.5)	$ 613.2	$ 1,225.2	$ (532.9)	$ 692.3

Estimated amortization expense on other intangible assets for the next five fiscal years is as follows (in millions):

2022	$ 143.1
2023	118.5
2024	92.4
2025	77.8
2026	63.0

(10) Goodwill

Goodwill consists of the following (in millions):

	Software Solutions	Data and Analytics	Total
Balance, December 31, 2019	$ 2,189.3	$ 172.1	$ 2,361.4
2020 Optimal Blue acquisition (Note 3)	1,206.0	—	1,206.0
2019 and 2020 other acquisitions (Note 3)	20.5	25.5	46.0
Balance, December 31, 2020	3,415.8	197.6	3,613.4
2021 acquisitions (Note 3)	194.7	17.3	212.0
2020 Optimal Blue acquisition (Note 3)	(8.1)	—	(8.1)
Balance, December 31, 2021	$ 3,602.4	$ 214.9	$ 3,817.3

The goodwill related to our NexSpring, eMBS, Collateral Analytics and DocVerify acquisitions is fully deductible for tax purposes. The goodwill related to our Top of Mind and Optimal Blue acquisitions is partially deductible for tax purposes. The decrease in goodwill related to a measurement period adjustment for deferred income taxes related to the acquisition of Optimal Blue. Refer to Note 3 – *Business Acquisitions*.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(11) Long-Term Debt

Long-term debt consists of the following (in millions):

	December 31, 2021	December 31, 2020
Term A Loan	$ 1,150.0	$ 1,148.4
Revolving Credit Facility	256.0	47.7
Senior Notes	1,000.0	1,000.0
Other	8.9	17.6
Total long-term debt principal	2,414.9	2,213.7
Less: current portion of long-term debt	(32.5)	(73.0)
Long-term debt before debt issuance costs and discount	2,382.4	2,140.7
Less: debt issuance costs and discount	(19.8)	(18.8)
Long-term debt, net of current portion	$ 2,362.6	$ 2,121.9

Principal Maturities of Debt

As of December 31, 2021, principal maturities, including payments related to our finance leases, are as follows (in millions):

2022	$ 32.7
2023	33.7
2024	57.5
2025	57.5
2026	1,233.5
Thereafter	1,000.0
Total	$ 2,414.9

Credit Agreement

On April 30, 2018, our indirect subsidiary, BKIS entered into an amended and restated credit and guaranty agreement (the "2018 Credit Agreement") with JPMorgan Chase Bank, N.A. as administrative agent, the guarantors party thereto, the other agents party thereto and the lenders party thereto. The 2018 Credit Agreement was amended on August 7, 2020 to facilitate the issuance of the Senior Notes, as defined below. The 2018 Credit Agreement, as amended, provided for (i) a $1,250.0 million term loan A facility and (ii) a $750.0 million revolving credit facility.

Debt Refinancing

On March 10, 2021, BKIS entered into a second amended and restated credit and guaranty agreement (the "2021 Credit Agreement") with JPMorgan Chase Bank, N.A., as administrative agent, the guarantors party thereto, the other agents party thereto and the lenders party thereto.

The 2021 Credit Agreement provides for (i) a $1,150.0 million term loan A facility (the "Term A Loan") and (ii) a $1,000.0 million revolving credit facility (the "Revolving Credit Facility" and, together with the Term A Loan, collectively, the "Facilities"), the proceeds of which were used to repay in full the indebtedness outstanding under the 2018 Credit Agreement and to pay related fees and expenses.

The Facilities bear interest at rates based upon, at the option of BKIS, either (i) the base rate plus a margin of between 25 and 50 basis points depending on the total net leverage ratio of Black Knight Financial Services, LLC ("BKFS"), a Delaware limited liability company and the direct parent company of BKIS, and its restricted subsidiaries on a consolidated basis (the “Consolidated Leverage Ratio”) and (ii) the Eurodollar rate plus a margin of between 125 and 150 basis points depending on the Consolidated Leverage Ratio. In addition, BKIS pays an unused commitment fee of between 15 and 20 basis points on the undrawn commitments under the Revolving Credit Facility, also depending on the Consolidated Leverage Ratio. The above margins and unused commitment fee are consistent with the 2018 Credit Agreement. The 2021 Credit Agreement also provides us with an option to choose an alternative rate of interest on or before the cessation of the London Interbank Offered Rate (“LIBOR”) at our election.

As of December 31, 2021, the interest rate for the Facilities was based on the Eurodollar rate plus a margin of 150 basis points. We had $744.0 million capacity on the Revolving Credit Facility, and the unused commitment fee was 20 basis points. The interest rates on the Term A Loan and the Revolving Credit Facility were 1.60% and 1.58%, respectively.

The Facilities are guaranteed by BKIS’s wholly-owned domestic restricted subsidiaries, as defined by the 2021 Credit Agreement, and BKFS, and are secured by associated collateral agreements that pledge a lien on the majority of BKIS’s assets and the assets of the guarantors, in each case, subject to customary exceptions.

The Term A Loan is subject to amortization of principal, payable in quarterly installments on the last day of each fiscal quarter equal to the percentage set forth below of the initial aggregate principal amount of the term loans for such fiscal quarter:

Payment Dates	Percentage
Commencing on March 31, 2022 through and including December 31, 2023	0.625 %
Commencing on March 31, 2024 through and including December 31, 2025	1.250 %

The remaining principal balance of the Term A Loan and any outstanding loans under the Revolving Credit Facility are due upon maturity on March 10, 2026.

As a result of the refinancing, we recognized $2.5 million of expense during the year ended December 31, 2021 in Other expense, net on the Consolidated Statements of Earnings and Comprehensive Earnings.

Senior Notes

On August 26, 2020, BKIS completed the issuance and sale of $1.0 billion aggregate principal amount of 3.625% senior unsecured notes due 2028 (the "Senior Notes"). The Senior Notes have a coupon rate of 3.625% and mature on September 1, 2028. Interest is paid semi-annually in arrears on September 1 and March 1 of each year, commencing March 1, 2021. The obligations under the Senior Notes are fully and unconditionally guaranteed, jointly and severally, on an unsecured basis by the same guarantors that guarantee the 2018 Credit Agreement (collectively, the “Guarantors”). The Senior Notes are effectively subordinated to any obligations that are secured, including obligations under the 2018 Credit Agreement, to the extent of the value of the assets securing those obligations. The Senior Notes are structurally subordinated to all liabilities of BKIS’ subsidiaries that do not guarantee the Senior Notes. The net proceeds of the offering, along with cash on hand and contributions from Cannae and THL, were used to partially finance the acquisition of Optimal Blue.

The Senior Notes were issued pursuant to an indenture (the “Indenture”), dated as of August 26, 2020, between BKIS, the Guarantors and Wells Fargo Bank, National Association, as trustee. BKIS may redeem up to 40% of the Senior Notes using the proceeds of certain equity offerings completed before September 1, 2023 at a redemption price equal to 103.625% of their principal amount plus accrued and unpaid interest, if any, up to, but not including the redemption date. In addition, at any time prior to September 1, 2023, BKIS may redeem some or all of the Senior Notes at a price equal to 100% of their principal amount, plus accrued and unpaid interest, if any, up to, but not including, the redemption date, plus the “make-whole” premium. Thereafter, BKIS may redeem the Senior Notes, in whole or in part, at the redemption prices set forth in the Indenture, plus accrued and unpaid interest, if any, up to, but not including, the redemption date. Upon the occurrence of certain events constituting a change of control, BKIS may be required to make an offer to repurchase the Senior Notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, up to, but not including, the date of purchase.

The Senior Notes are subject to customary covenants, including among others, customary events of default.

Other Debt

As of December 31, 2021, we had the following other financing agreements (in millions):

Effective dates	Amount Financed		Stated rate	Imputed rate	Payment dates
December 31, 2019[(1)]	$	16.3	— %	3.3 %	January 2, 2020 through January 2, 2023
July 30, 2021	$	2.3	— %	1.6 %	September 1, 2021 through September 1, 2023

(1) On April 1, 2018, we entered into a financing agreement for $32.9 million, with a stated interest rate of 0% and an imputed interest rate of 3.4%, primarily related to certain data processing and maintenance services. On December 31, 2019, we entered into an amendment to the financing agreement for an additional $16.3 million,

As of December 31, 2021 and 2020, $3.1 million and $9.5 million, respectively, is included in the Current portion of debt in our Consolidated Balance Sheets and $4.9 million and $6.4 million, respectively, is included in Long-term debt, net of current portion in our Consolidated Balance Sheets.

Finance Leases

On December 31, 2019, we entered into one-year finance lease agreements, with a stated interest rate of 0% and an imputed interest rate of 3.3% and bargain purchase options for certain computer equipment. On March 31, 2021, we entered into one-year finance lease agreements, with a stated interest rate of 0%, an imputed interest rate of 1.6% and bargain purchase options for certain computer equipment. The finance lease liabilities of $0.8 million and $1.2 million as of December 31, 2021 and 2020, respectively, are included in the Current portion of debt on our Consolidated Balance Sheets. For the years ended December 31, 2021 and 2020, non-cash financing and investing activity was $0.8 million and $1.2 million, respectively, related to the unpaid portion of our finance lease agreements. Refer to Note 14 — *Leases* for additional information related to our finance leases.

Fair Value of Long-Term Debt

The fair values of our Facilities and Senior Notes are based upon established market prices for the securities using Level 2 inputs. The fair value of our Facilities approximates their carrying value at December 31, 2021. The fair value of our Senior Notes as of December 31, 2021 was $1,002.5 million compared to its carrying value of $989.6 million, net of original issue discount and debt issuance costs.

Interest Rate Swaps

We enter into interest rate swap agreements to hedge forecasted monthly interest rate payments on our floating rate debt. As of December 31, 2021, we had the following interest rate swap agreements (collectively, the "Swap Agreements") (in millions):

Effective dates	Notional amount		Fixed rates
March 31, 2017 through March 31, 2022	$	200.0	2.08 %
April 30, 2018 through April 30, 2023	$	250.0	2.61 %
January 31, 2019 through January 31, 2023	$	300.0	2.65 %

Under the terms of the Swap Agreements, we receive payments based on the 1-month LIBOR rate (approximately 0.10% as of December 31, 2021). During the years ended December 31, 2021 and 2019, the following interest rate swap agreements expired (in millions):

Effective dates	Notional amount	Fixed rates
February 1, 2016 through January 31, 2019	$ 200.0	1.01 %
February 1, 2016 through January 31, 2019	$ 200.0	1.01 %
September 29, 2017 through September 30, 2021	$ 200.0	1.69 %

We entered into the Swap Agreements to convert a portion of the interest rate exposure on our floating rate debt from variable to fixed. We designated these Swap Agreements as cash flow hedges. A portion of the amount included in Accumulated other comprehensive loss will be reclassified into Interest expense, net as a yield adjustment as interest is either paid or received on the hedged debt. The fair value of our Swap Agreements is based upon Level 2 inputs. We have considered our own credit risk and the credit risk of the counterparties when determining the fair value of our Swap Agreements.

It is our policy to execute such instruments with creditworthy banks and not to enter into derivative financial instruments for speculative purposes. We believe our interest rate swap counterparties will be able to fulfill their obligations under our agreements, and we believe we will have debt outstanding through the various expiration dates of the swaps such that the occurrence of future cash flow hedges remains probable.

The estimated fair values of our Swap Agreements are as follows (in millions):

	December 31,	
Balance sheet accounts	2021	2020
Other current liabilities	$ 1.0	$ 2.4
Other non-current liabilities	$ 13.9	$ 35.2

A cumulative loss of $14.9 million ($11.1 million net of tax) and $37.6 million ($28.1 million net of tax) is reflected in Accumulated other comprehensive loss as of December 31, 2021 and December 31, 2020, respectively. Below is a summary of the effect of derivative instruments on amounts recognized in Other comprehensive loss ("OCE") on the accompanying Consolidated Statements of Earnings and Comprehensive Earnings (in millions):

	Year ended December 31,					
	2021		2020		2019	
	Amount of gain recognized in OCE	Amount of loss reclassified from Accumulated OCE into Net earnings	Amount of loss recognized in OCE	Amount of loss reclassified from Accumulated OCE into Net earnings	Amount of loss recognized in OCE	Amount of gain reclassified from Accumulated OCE into Net earnings
Swap agreements	$ 1.7	$ 15.3	$ (23.9)	$ 12.2	$ (18.0)	$ —

Approximately $13.1 million ($9.8 million net of tax) of the balance in Accumulated other comprehensive loss as of December 31, 2021 is expected to be reclassified into Interest expense, net over the next 12 months.

(12) Fair Value Measurements

Fair Value of Financial Assets and Liabilities

Fair value represents the amount that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair values of financial assets and liabilities are determined using the following fair value hierarchy:

- Level 1 inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that we have the ability to access.
- Level 2 inputs to the valuation methodology include:
    - quoted prices for similar assets or liabilities in active markets;
    - quoted prices for identical or similar assets or liabilities in inactive markets;
    - inputs other than quoted prices that are observable for the asset or liability; and
    - inputs that are derived principally from or corroborated by observable market data by correlation or other means.
- Level 3 inputs to the valuation methodology are unobservable and significant to the fair value measurement.

Assets are classified in their entirety based on the lowest level of input that is significant to the fair value measurement. We believe our valuation methods are appropriate and consistent with other market participants. The use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different fair value measurement at the reporting date.

The following table presents our fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis (in millions):

	December 31, 2021				December 31, 2020			
	Carrying amount	Fair value			Carrying amount	Fair value		
		Level 1	Level 2	Level 3		Level 1	Level 2	Level 3
Assets:								
Cash and cash equivalents (Note 2)	$ 77.1	$ 77.1	$ —	$ —	$ 34.7	$ 34.7	$ —	$ —
Liabilities:								
Interest rate swaps (Note 11)	14.9	—	14.9	—	37.6	—	37.6	—
Contingent consideration (Note 3)	4.9	—	—	4.9	3.1	—	—	3.1
Redeemable noncontrolling interests	1,188.8	—	—	1,188.8	578.0	—	—	578.0

The fair value of redeemable noncontrolling interests and contingent consideration was primarily determined based on significant estimates and assumptions, including Level 3 inputs. The estimates and assumptions include the projected timing and amount of future cash flows and discount rates reflecting the rate inherent in the future cash flows. Refer to Note 2 — *Significant Accounting Policies* and Note 3 — *Business Acquisitions* for additional information.

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The following table presents a summary of the change in fair value of our Level 3 fair value measurements (in millions):

Beginning balance, December 31, 2020	$	581.1
Contingent consideration adjustments related to prior year acquisition(1)		(2.3)
Contingent consideration increase related to current year acquisition		4.1
Fair value adjustment to redeemable noncontrolling interests in Optimal Blue Holdco, LLC		610.8
Ending balance, December 31, 2021	$	1,193.7

(1) The adjustments to contingent consideration for prior year acquisitions are included in Transition and integration costs in the Consolidated Statements of Earnings and Comprehensive Earnings.

(13) Commitments and Contingencies

Legal and Regulatory Matters

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 for punitive or exemplary damages. Our ordinary course litigation may include class action lawsuits, which make allegations related to various aspects of our business. From time to time, we also receive requests for information from various state and federal regulatory authorities, 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.

PennyMac Litigation

On November 5, 2019, Black Knight Servicing Technologies, LLC (“BKST”), an indirect, wholly-owned subsidiary of Black Knight, filed a Complaint and Demand for Jury Trial (the “Black Knight Complaint”) against PennyMac Loan Services, LLC (“PennyMac”) in the Circuit Court for the Fourth Judicial Circuit in and for Duval County, Florida. The Black Knight Complaint includes causes of action for breach of contract and misappropriation of MSP® System trade secrets in order to develop an imitation mortgage processing system intended to replace the MSP® System. The Black Knight Complaint seeks damages for breach of contract and misappropriation of trade secrets, injunctive relief under the Florida Uniform Trade Secrets Act and declaratory judgment that BKST owns all intellectual property and software developed by or on behalf of PennyMac as a result of its wrongful use of and access to the MSP® System and related trade secret and confidential information. PennyMac filed a motion to compel arbitration of the action, and the court granted the motion on April 6, 2020. After the court denied BKST’s motion for reconsideration of the court’s order compelling arbitration, BKST filed a notice of appeal with the Florida First District Court of Appeal on May 6, 2020. On January 6, 2021, the appellate court affirmed the trial court’s ruling.

On October 21, 2020, PennyMac submitted a dispute regarding a Black Knight Origination Technologies, LLC LendingSpace® software audit request to the American Arbitration Association ("AAA") for arbitration. Black Knight moved to consolidate the LendingSpace® arbitration with the existing trade secret/antitrust arbitrations, and, on

BLACK KNIGHT, INC. AND SUBSIDIARIES
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December 21, 2020, the arbitrator granted Black Knight's motion to consolidate the arbitrations. On December 8, 2020, Black Knight and PennyMac filed motions for summary judgment concerning the LendingSpace® audit, and responses to the competing motions for summary judgment were filed by both parties on January 7, 2021. On February 16, 2021, the arbitrator granted Black Knight's motion for summary judgment and ordered that Black Knight may conduct an audit of PennyMac's use of Black Knight's LendingSpace® software.

Shortly after the filing of the Black Knight Complaint, on November 6, 2019, PennyMac filed an Antitrust Complaint (the "PennyMac Complaint") against Black Knight in the United States District Court for the Central District of California. The PennyMac Complaint included causes of action for alleged monopolization and attempted monopolization under Section 2 of the Sherman Antitrust Act, violation of California's Cartwright Act, violation of California's Unfair Competition Law and common law unfair competition under California law. The PennyMac Complaint sought equitable remedies, damages and other monetary relief, including treble and punitive damages. Generally, PennyMac alleged that Black Knight relies on various anticompetitive, unfair, and discriminatory practices to maintain and to enhance its dominance in the mortgage servicing platform market and in an attempt to monopolize the platform software applications market. Black Knight moved to dismiss the PennyMac Complaint or have the action transferred to Florida based upon a forum selection clause in the agreement with BKST. On February 13, 2020, the judge granted Black Knight's motion to transfer the case to Florida and denied as moot the motion to dismiss. On April 17, 2020, PennyMac filed a notice of dismissal of this action without prejudice and indicated that they intended to bring the claims raised in the dismissed PennyMac Complaint as defenses, third party claims and/or counterclaims in arbitration. On April 23, 2020, the court entered an order dismissing the action without prejudice and directing that the clerk close the case. On April 28, 2020, PennyMac submitted this matter to the AAA for arbitration. On May 27, 2020, Black Knight filed its answering statement with the AAA. The arbitrator was confirmed by the AAA on July 21, 2020.

The arbitrator set Black Knight's trade secret case for a 10-day final hearing beginning on January 9, 2023, and set PennyMac's antitrust case for a 10-day final hearing beginning on January 23, 2023.

As these cases continue to evolve, it is not possible to reasonably estimate the probability that we will ultimately prevail on our lawsuit or be held liable for the violations alleged in the PennyMac Complaint, nor is it possible to reasonably estimate the ultimate gain or loss, if any, or range of gain or loss that could result from these cases.

Other Legal Matter

During the year ended December 31, 2020, we recognized a one-time gain of $18.5 million related to the resolution of a legacy legal matter of Lender Processing Services, Inc. ("LPS") in Other (expense) income, net in our Consolidated Statements of Earnings and Comprehensive Earnings.

Indemnifications and Warranties

We often agree to indemnify our clients against damages and costs resulting from claims of patent, copyright, trademark infringement or breaches of confidentiality associated with use of our software through software licensing agreements. Historically, we have not made any payments under such indemnifications, but continue to monitor the conditions that are subject to the indemnifications to identify whether a loss has occurred that is both probable and estimable that would require recognition. In addition, we warrant to clients that our software operates substantially in accordance with the software specifications. Historically, no costs have been incurred related to software warranties and none are expected in the future, and as such, no accruals for warranty costs have been made.

Indemnification Agreement

We are party to a cross-indemnity agreement dated December 22, 2014 with ServiceLink Holdings, LLC ("ServiceLink"). Pursuant to this agreement, ServiceLink indemnifies us from liabilities relating to, arising out of or resulting from the conduct of ServiceLink's business or any action, suit or proceeding in which we or any of our subsidiaries are named by reason of being a successor to the business of LPS and the cause of such action, suit or proceeding relates to the business of ServiceLink. In return, we indemnify ServiceLink for liabilities relating to, arising out of, or resulting from the conduct of our business.

Software Subscription, Cloud Computing and Hardware and Software Maintenance Services Agreements

We have various software subscription, cloud computing and hardware and software maintenance services agreements with vendors, which are in effect through 2025. As of December 31, 2021, payment obligations for these agreements with initial or remaining terms greater than one year are as follows (in millions):

2022	$ 58.9
2023	54.1
2024	13.2
2025	0.5
Total	$ 126.7

Actual amounts could be more or less depending on various factors such as the introduction of significant new technologies or changes in our business needs.

Off-Balance Sheet Arrangements

We do not have any material off-balance sheet arrangements other than interest rate swaps.

(14) Leases

Operating Leases

We have operating leases for corporate offices, data centers and certain equipment. Our leases have remaining lease terms of up to seven years, some of which include escalation clauses, renewal options for up to five years or termination options within one year.

Right-of-use assets are included in Other non-current assets in our Consolidated Balance Sheets. Refer to Note 2 - *Significant Accounting Policies*. Operating lease liabilities are included in the Consolidated Balance Sheets as follows (in millions):

	December 31,	
	2021	2020
Operating lease liabilities:		
Trade accounts payable and other accrued liabilities	$ 10.7	$ 13.5
Other non-current liabilities	26.4	29.7
Total operating lease liabilities	$ 37.1	$ 43.2

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NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

As of December 31, 2021, maturities of operating lease liabilities were as follows (in millions):

2022	$ 10.9
2023	9.1
2024	8.1
2025	3.3
2026	2.8
Thereafter	4.7
Total	38.9
Less: imputed interest	(1.8)
Total	$ 37.1

Supplemental information related to operating leases is as follows (in millions, except lease term and discount rate):

	Year ended December 31,	
	2021	2020
Operating lease cost (1)	$ 18.5	$ 18.1
Operating cash outflows related to lease liabilities	13.7	12.4
Non-cash additions for right-of-use assets, net of modifications	6.4	21.5

	December 31,	
	2021	2020
Weighted average remaining lease term (in years)	4.7	5.3
Weighted average discount rate	2.25 %	3.30 %

(1) Operating lease cost includes right-of-use asset amortization as well as short-term and variable lease costs. Accelerated right-of-use asset amortization included in operating lease cost was $4.0 million and $2.8 million for the years ended December 31, 2021 and 2020, respectively.

Finance Leases

On December 31, 2019, we entered into one-year finance lease agreements with a stated rate of 0.0% and an imputed interest rate of 3.3% and bargain purchase options for certain computer equipment. The leased equipment was valued based on the net present value of the minimum lease payments, which was $13.7 million (net of prepaid maintenance and imputed interest of $0.3 million) and is included in Property and equipment, net on our Consolidated Balance Sheets. On March 31, 2021, we entered into one-year finance lease agreements, with a stated interest rate of 0%, an imputed interest rate of 1.6% and bargain purchase options for certain computer equipment. The leased equipment was valued based on the net present value of the minimum lease payments, which was $3.2 million (net of prepaid maintenance and imputed interest of less than $0.1 million) and is included in Property and equipment, net on our Consolidated Balance Sheets. The leased equipment has a useful life of five years and is depreciated on a straight-line basis. Refer to Note 7 — *Property and Equipment*.

Finance lease cost for the years ended December 31, 2021 and 2020 included amortization of right-of-use asset of $0.5 million and $2.1 million, respectively, and interest on lease liability of less than $0.1 million and $0.3 million, respectively. Refer to Note 11 — *Long – Term Debt* for additional information related to our finance leases.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(15) Revenues

Disaggregation of Revenues

The following tables summarize revenues from contracts with clients (in millions):

	Year ended December 31, 2021					
	Servicing Software	Origination Software	**Software Solutions**	**Data and Analytics**	**Corporate and Other**	**Total**
Software solutions	$ 760.0	$ 347.2	$ 1,107.2	$ 37.0	$ —	$ 1,144.2
Professional services	78.9	51.9	130.8	1.5	—	132.3
Data solutions	—	2.7	2.7	184.2	—	186.9
Other	—	9.3	9.3	2.5	—	11.8
Revenues	$ 838.9	$ 411.1	$ 1,250.0	$ 225.2	$ —	$ 1,475.2

	Year ended December 31, 2020					
	Servicing Software	Origination Software	**Software Solutions**	**Data and Analytics**	**Corporate and Other**	**Total**
Software solutions	$ 700.1	$ 202.6	$ 902.7	$ 34.1	$ —	$ 936.8
Professional services	77.6	45.8	123.4	0.7	(0.4)(1)	123.7
Data solutions	—	1.2	1.2	161.4	—	162.6
Other	—	12.9	12.9	2.5	—	15.4
Revenues	$ 777.7	$ 262.5	$ 1,040.2	$ 198.7	$ (0.4)	$ 1,238.5

	Year ended December 31, 2019					
	Servicing Software	Origination Software	**Software Solutions**	**Data and Analytics**	**Corporate and Other**	**Total**
Software solutions	$ 726.1	$ 137.0	$ 863.1	$ 32.2	$ —	$ 895.3
Professional services	84.3	46.4	130.7	1.2	(0.5)(1)	131.4
Data solutions	—	—	—	129.4	—	129.4
Other	5.1	13.4	18.5	2.6	—	21.1
Revenues	$ 815.5	$ 196.8	$ 1,012.3	$ 165.4	$ (0.5)	$ 1,177.2

(1) Revenues for Corporate and Other represent deferred revenue purchase accounting adjustments recorded in accordance with GAAP.

Our Software Solutions segment offers leading software and hosting solutions that facilitate and automate many of the mission-critical business processes across the homeownership lifecycle. These solutions primarily consist of processing and workflow management software applications. Our servicing software solutions primarily include our core servicing software solution that automates loan servicing, including loan setup and ongoing processing, customer service, accounting, reporting to the secondary mortgage market and investors and web-based workflow information systems. Our origination software solutions primarily include our solutions that automate and facilitate the origination of mortgage loans, offer product, pricing and eligibility capabilities, and provide an interconnected network allowing the various parties and systems associated with lending transactions to exchange data quickly and efficiently. Professional services consists of pre-implementation and post-implementation support and services and are primarily billed on a time and materials basis. Professional services may also include dedicated teams provided as part of agreements with software and hosting solutions clients.

Our Data and Analytics segment offers data and analytics solutions to the mortgage, real estate and capital markets verticals. These solutions include property ownership data, lien data, servicing data, automated valuation models, collateral risk scores, behavioral models, a multiple listing service software solution and other data solutions.

BLACK KNIGHT, INC. AND SUBSIDIARIES
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Transaction Price Allocated to Future Performance Obligations

Our disclosure of transaction price allocated to these future performance obligations excludes the following:

- Volume-based fees in excess of contractual minimums and other usage-based fees to the extent they are part of a single performance obligation and meet certain variable allocation criteria;
- Performance obligations that are part of a contract with an original expected duration of one year or less; and
- Transactional fees based on a fixed fee per transaction when we have the right to invoice once we have completed the performance obligation.

As of December 31, 2021, the aggregate amount of the transaction price that is allocated to our future performance obligations was approximately $2.8 billion and is expected to be recognized as follows: 24% by December 31, 2022, 64% by December 31, 2024, 86% by December 31, 2026 and the rest thereafter.

(16) Equity

Share Repurchase Program

On January 31, 2017, our Board of Directors approved a three-year share repurchase program, effective February 3, 2017 ("2017 Repurchase Program"), authorizing us to repurchase up to 10.0 million shares of Black Knight Financial Services, Inc. ("BKFS") Class A common stock through February 2, 2020, through open market purchases, negotiated transactions or other means, in accordance with applicable securities laws and other restrictions. In connection with the Distribution, our Board of Directors approved a share repurchase program authorizing the repurchase of shares of BKI common stock consistent with the previous share repurchase program.

A summary of share repurchases under our 2017 Share Repurchase program for the periods covered in this report is as follows (in millions, except per share amounts):

Year	Total number of shares repurchased	Aggregate purchase price	Average price paid per share	Shares remaining under repurchase authorization as of December 31,
2019	0.2	$ 11.9	$ 57.94	3.6

On February 12, 2020, our Board of Directors approved a three-year share repurchase program ("2020 Repurchase Program") authorizing us to repurchase up to 10.0 million shares of our outstanding common stock through February 12, 2023, through open market purchases, negotiated transactions or other means, in accordance with applicable securities laws and other restrictions.

A summary of share repurchases under our 2020 Repurchase Program for the periods covered in this report is as follows (in millions, except for per share amounts):

Year	Total number of shares repurchased	Aggregate purchase price	Average price paid per share	Shares remaining under repurchase authorization as of December 31,
2021	2.0	$ 146.7	$ 73.91	8.0

We did not repurchase any shares under the 2020 Repurchase Program during the year ended December 31, 2020.

Common Stock Offering

On June 19, 2020, we issued and sold 7,130,000 shares of our common stock in an underwritten public offering pursuant to a registration statement filed with the SEC. We received net proceeds of approximately $484.6 million after deducting the underwriters' discount of $16.3 million. We also incurred costs directly related to the offering of $0.4 million.

Omnibus Incentive Plan

The Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (the "Black Knight Omnibus Plan") provides for the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, performance shares, performance units, other cash and stock-based awards and dividend equivalents. The Black Knight Omnibus Plan is authorized to issue up to 18.5 million shares. As of December 31, 2021, 6.7 million shares were available for future issuance. Awards granted are approved by the Compensation Committee of the Board of Directors.

A summary of restricted shares granted is as follows:

Dates	Number of shares granted	Grant date fair value per share	Vesting period (in years)	Vesting criteria
February 15, 2019(1)	793,863	$ 52.38	3.0	Service and Performance
Various other 2019 dates(1)	123,313	54.14 - 63.01	3.0	Service and Performance
Various other 2019 dates	19,946	52.25 - 62.50	2.0 - 3.0	Service
February 18, 2020(2)	487,096	74.91	3.0	Service and Performance
May 6, 2020(2)	3,101	72.57	3.0	Service and Performance
Various other 2020 dates	37,481	59.45 - 91.64	1.0 - 3.0	Service
March 10, 2021(2)	518,219	76.00	3.0	Service and Performance
Various other 2021 dates	188,499	69.84 - 78.44	1.0 - 5.0	Service

(1) Performance condition for this award has been satisfied as of December 31, 2021.

(2) This award is subject to an independent performance target for each of three consecutive 12-month measurement periods. Vesting of each tranche is independent of the satisfaction of the annual performance target for other tranches.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Activity related to restricted stock and RSUs for the periods presented are as follows:

	Shares		Weighted average grant date fair value
Balance December 31, 2018	2,077,265	$	40.77
Granted	937,122	$	53.84
Forfeited	(90,880)	$	46.94
Vested	(908,524)	$	39.83
Balance, December 31, 2019	2,014,983	$	46.99
Granted	527,678	$	74.62
Forfeited	(11,811)	$	63.12
Vested	(981,752)	$	44.50
Balance, December 31, 2020	1,549,098	$	57.86
Granted	706,718	$	76.12
Forfeited	(61,900)	$	72.72
Vested	(924,127)	$	53.06
Balance, December 31, 2021	1,269,789	$	70.79

Equity-based compensation expense related to restricted shares and RSUs was $33.0 million, $38.5 million and $50.8 million for the years ended December 31, 2021, 2020 and 2019, respectively. Equity-based compensation includes accelerated recognition of $2.9 million, $0.5 million and $2.9 million for the years ended December 31, 2021, 2020 and 2019, respectively. These expenses are included in Operating expenses in the Consolidated Statements of Earnings and Comprehensive Earnings.

As of December 31, 2021, the total unrecognized compensation cost related to non-vested restricted shares of our common stock is $52.8 million, which is expected to be recognized over a weighted average period of approximately 2.2 years.

Profits Interests Units

On November 24, 2020, there were 6,292 OB PIUs granted to certain members of management, directors, and certain employees, which vest over 3 years, with 100% cliff vesting after the third year. The terms of the OB PIUs provide for the grantees to participate in the excess of Optimal Blue Holdco's fair value over the initial hurdle amount, which was the fair value of the Optimal Blue Holdco's Class A members' initial contributions.

If no public offering has been consummated as of the third anniversary of the acquisition of Optimal Blue, holders of the OB PIUs have an option to put their profit interests to us once per quarter for the twelve months that begins six months after the OB PIU holder's vesting date, and once per year thereafter. The units may be settled in cash or Black Knight common stock or a combination of both at our election and will be settled at the current fair value at the time we receive notice of the put election. As the OB PIUs provide for redemption features not solely within our control, we classify the redemption value outside of permanent equity in redeemable noncontrolling interests. The redemption value is equal to the difference in the per unit fair value of the underlying member units and the hurdle amount, based upon the proportionate required service period rendered to date.

The hurdle rate as of the grant date was used to determine the per unit strike price for the calculation. The risk free interest rates used in the calculation of the fair value of the OB PIUs are the rates that correspond to the weighted average expected life of the OB PIUs. The volatility was estimated based on the historical volatility of the comparable public companies' stock prices over a term equal to the weighted average expected life of the OB PIUs. We used a weighted average risk free interest rate of 0.31%, a volatility assumption of 37.0% and an expected life of 4 years, resulting in a grant date fair value of $4,233 per profits interests unit. The grant date fair value of the OB PIUs granted on November 24, 2020 was $26.6 million.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Activity related to OB PIUs for the periods presented are as follows:

	Shares		Weighted average grant date fair value
Balance, December 31, 2019	—	$	—
Granted	6,292	$	4,233
Forfeited	—	$	—
Vested	—	$	—
Balance, December 31, 2020	6,292	$	4,233
Granted	70	$	4,233
Forfeited	(155)	$	4,233
Vested	—	$	—
Balance, December 31, 2021	6,207	$	4,233

Equity-based compensation expense related to the OB PIUs was $8.7 million and $0.9 million for the years December 31, 2021 and 2020, respectively. As of December 31, 2021, the total unrecognized compensation cost related to non-vested OB PIUs is $16.6 million, which is expected to be recognized over a weighted average period of approximately 1.9 years.

(17) Employee Stock Purchase Plan and 401(k) Plan

Employee Stock Purchase Plan ("ESPP")

The Black Knight, Inc. Employee Stock Purchase Plan (the "Black Knight ESPP"), which was amended and restated as of December 5, 2019, allows our eligible employees to voluntarily make after-tax contributions ranging from 3% to 15% of eligible earnings. We contribute varying matching amounts as specified in the Black Knight ESPP. Effective January 1, 2020, a one-year holding period was implemented for contributions to the Black Knight ESPP. During the holding period, ESPP purchased shares are not eligible for sale or broker transfer.

We recorded expense of $8.7 million, $7.1 million and $8.0 million for the years ended December 31, 2021, 2020, and 2019, respectively, relating to the participation of our employees in the Black Knight ESPP.

401(k) Profit Sharing Plan

Our employees participate in the Black Knight 401(k) Profit Sharing Plan (the “Black Knight 401(k) Plan”), a qualified 401(k) plan sponsored by our indirect subsidiary BKIS. Under the terms of the plan, as amended, eligible employees may contribute up to 40% of their pretax annual compensation, up to the amount allowed pursuant to the Internal Revenue Code ("IRC"). We generally match 37.5% of each dollar of employee contribution up to 6% of the employee’s total eligible compensation.

We recorded expense of $8.4 million, $7.2 million and $6.5 million for the years ended December 31, 2021, 2020 and 2019, respectively, relating to the participation of our employees in the 401(k) plans.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

(18) Income Taxes

Income tax expense consists of the following (in millions):

	Year ended December 31, 2021	2020	2019
Current:			
Federal	$ 37.1	$ 41.5	$ 39.5
State	13.1	11.6	9.7
Foreign	1.0	1.0	0.9
Total current	51.2	54.1	50.1
Deferred:			
Federal	(11.5)	(10.6)	(0.2)
State	(4.0)	(1.9)	(8.0)
Total deferred	(15.5)	(12.5)	(8.2)
Total income tax expense	$ 35.7	$ 41.6	$ 41.9

A reconciliation of our federal statutory income tax rate to our effective income tax rate is as follows:

	Year ended December 31, 2021	2020	2019
Federal statutory rate	21.0 %	21.0 %	21.0 %
State income taxes, net of federal benefit	3.7	4.2	4.1
Redeemable noncontrolling interests	1.4	1.3	—
Tax credits	(6.2)	(4.6)	(2.3)
Restricted share vesting	(2.7)	(2.6)	(1.1)
Effect of deferred revaluation related to lower blended state tax rate	—	—	(3.3)
Prior year return to provision adjustments	(2.8)	(5.0)	(0.9)
Effect of Optimal Blue acquisition and related transactions	—	1.4	—
Non-deductible executive compensation	1.2	1.2	—
Unrecognized tax benefit	—	1.9	(0.2)
Other	1.2	0.1	1.3
Effective tax rate	16.8 %	18.9 %	18.6 %

The components of deferred tax assets and liabilities consist of the following (in millions):

	December 31, 2021	2020
Deferred tax assets:		
Equity method investments	$ 2.6	$ 5.2
Equity-based compensation	4.6	9.7
Deferred revenues	20.5	22.6
Interest rate swaps	3.8	9.5
Other	25.3	24.1
Total deferred tax assets	56.8	71.1
Deferred tax liabilities:		
Goodwill and other intangible assets	(183.4)	(170.0)
Deferred contract costs	(44.1)	(42.1)
Property, equipment and software	(30.2)	(32.7)
Partnership basis	(80.1)	(105.4)
Other	(3.1)	(4.9)
Total deferred tax liabilities	(340.9)	(355.1)
Net deferred tax liability	$ (284.1)	$ (284.0)

Through acquisition, we have net operating losses subject to Internal Revenue Code 382 limitations, with the majority having an indefinite carryforward. We believe, based on our assessment of our deferred tax liability reversal patterns and projected future earnings that these losses will be utilized. The limitations are such that full utilization is projected within two years of acquisition.

During the year ended December 31, 2020, management determined that a reserve for uncertain tax positions was warranted as a result of certain items claimed on amended income tax returns filed for certain prior periods. The methodology used in determining the claimed amounts in the amendment of prior periods is also utilized for the current year and may result in additional reserves. We do not expect the reserve to reverse within the following year. If we were to prevail on our uncertain tax positions, the reversal of this reserve would also be a benefit to our effective tax rate. A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	December 31,	
	2021	2020
Balance, January 1	$ 4.1	$ —
Additions based on tax positions of prior years	3.3	2.8
Additions based on tax positions of current year	2.3	1.3
Balance, December 31	$ 9.7	$ 4.1

Our open tax years are 2018, 2019 and 2020 for federal income tax purposes. We have open tax years for state income tax purposes for up to six years based on each state's laws.

(19) Concentrations of Risk

We generate a significant amount of revenues from large clients. For the years ended December 31, 2021 and 2020, no client accounted for more than 10% of our consolidated revenues. One client accounted for 10% of total revenues for the year ended December 31, 2019.

Financial instruments that potentially subject us to concentrations of credit risk consist primarily of trade receivables and interest rate swaps.

(20) Segment Information

ASC Topic 280, *Segment Reporting* ("ASC 280"), establishes standards for reporting information about segments and requires that a public business enterprise reports financial and descriptive information about its segments. Segments are components of an enterprise for which separate financial information is available and are evaluated regularly by the chief operating decision maker ("CODM") in deciding how to allocate resources and in assessing performance. Our chief executive officer is identified as the CODM as defined by ASC 280. To align with the internal management of our business operations based on service offerings, our business is organized into two segments. Refer to Note 15 — *Revenues* for a description of our Software Solutions and Data and Analytics segments.

Separate discrete financial information is available for these two segments and the operating results of each segment are regularly evaluated by the CODM in order to assess performance and allocate resources. We use EBITDA as the primary profitability measure for making decisions regarding ongoing operations. EBITDA is earnings before Interest expense, net, Income tax expense and Depreciation and amortization. It also excludes Equity in earnings (losses) of unconsolidated affiliates. We do not allocate Interest expense, Other income, net, Income tax expense, equity-based compensation and certain other items, such as purchase accounting adjustments and acquisition-related costs to the segments, since these items are not considered in evaluating the segments' overall operating performance.

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

Segment asset information is not included below because we do not use it to evaluate performance or allocate resources. Summarized financial information concerning our segments is shown in the tables below (in millions):

	Year ended December 31, 2021			
	Software Solutions	Data and Analytics	Corporate and Other	Total
Revenues	$ 1,250.0	$ 225.2	$ — (1)	$ 1,475.2
Expenses:				
Operating expenses	536.3	145.0	112.6 (2)	793.9
Transition and integration costs	—	—	13.3 (3)	13.3
EBITDA	713.7	80.2	(125.9)	668.0
Depreciation and amortization	131.1	15.5	218.4 (4)	365.0
Operating income (loss)	582.6	64.7	(344.3)	303.0
Interest expense, net				(83.6)
Other expense, net				(6.4)
Earnings before income taxes and equity in earnings of unconsolidated affiliates				213.0
Income tax expense				35.7
Earnings before equity in earnings of unconsolidated affiliates				177.3
Equity in earnings of unconsolidated affiliates, net of tax				2.6
Net earnings				179.9
Net losses attributable to redeemable noncontrolling interests				28.0
Net earnings attributable to Black Knight				$ 207.9

	Year ended December 31, 2020			
	Software Solutions	Data and Analytics	Corporate and Other	Total
Revenues	$ 1,040.2	$ 198.7	$ (0.4)(1)	$ 1,238.5
Expenses:				
Operating expenses	435.6	133.9	100.1 (2)	669.6
Transition and integration costs	—	—	31.4 (3)	31.4
EBITDA	604.6	64.8	(131.9)	537.5
Depreciation and amortization	120.9	15.1	134.7 (4)	270.7
Operating income (loss)	483.7	49.7	(266.6)	266.8
Interest expense, net				(62.9)
Other income, net				16.4
Earnings before income taxes and equity in earnings of unconsolidated affiliates				220.3
Income tax expense				41.6
Earnings before equity in earnings of unconsolidated affiliates				178.7
Equity in earnings of unconsolidated affiliates, net of tax				67.1
Net earnings				245.8
Net losses attributable to redeemable noncontrolling interests				18.3
Net earnings attributable to Black Knight				$ 264.1

BLACK KNIGHT, INC. AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - (Continued)

	Year ended December 31, 2019			
	Software Solutions	Data and Analytics	Corporate and Other	Total
Revenues	$ 1,012.3	$ 165.4	$ (0.5)(1)	$ 1,177.2
Expenses:				
Operating expenses	412.7	123.4	109.9 (2)	646.0
Transition and integration costs	—	—	5.4 (3)	5.4
EBITDA	599.6	42.0	(115.8)	525.8
Depreciation and amortization	123.9	15.9	96.4 (4)	236.2
Operating income (loss)	475.7	26.1	(212.2)	289.6
Interest expense, net				(63.5)
Other expense, net				(1.4)
Earnings before income taxes and equity in losses of unconsolidated affiliates				224.7
Income tax expense				41.9
Earnings before equity in losses of unconsolidated affiliates				182.8
Equity in losses of unconsolidated affiliates, net of tax				(74.0)
Net earnings				$ 108.8

(1) Revenues for Corporate and Other represent deferred revenue purchase accounting adjustments recorded in accordance with GAAP.
(2) Operating expenses for Corporate and Other includes equity-based compensation, including certain related payroll taxes, of $42.9 million, $40.6 million and $51.7 million for the years ended December 31, 2021, 2020 and 2019, respectively.
(3) Transition and integration costs primarily consists of costs associated with acquisitions and expense reduction initiatives.
(4) Depreciation and amortization for Corporate and Other primarily represents net incremental depreciation and amortization adjustments associated with the application of purchase accounting recorded in accordance with GAAP.

Item 9. ***Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

Item 9A. ***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 Executive Vice President 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.

There were no changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2021 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

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"). Based on our evaluation under this framework, 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.

Item 9B. ***Other Information***

None.

Item 9C. ***Disclosures Regarding Foreign Jurisdictions That Prevent Inspections***

None.

Part III

Items 10-14.

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 15. *Exhibits and Financial Statement Schedules*

(a) (1) *Financial Statements.* The following is a list of the consolidated financial statements of Black Knight, Inc. and its subsidiaries included in Part II Item 8:

(a) (2) *Financial Statement Schedules.* All financial statement schedules have been omitted because they are not applicable or the required information is presented in the consolidated financial statements or the notes thereto.

(a) (3) *Exhibits.* Exhibits required to be filed by Item 601of Regulation S-K, and by Item 15(b) are included below:

Exhibit Number	Description
2.1	Agreement and Plan of Merger, dated as of June 8, 2017, by and among New BKH Corp., Black Knight Financial Services, Inc., Black Knight Holdco Corp., New BKH Merger Sub, Inc., BKFS Merger Sub, Inc. and Fidelity National Financial, Inc. (incorporated by reference to Exhibit 2.1 to the Form 8-K filed by Black Knight Financial Services, Inc. on June 9, 2017 (No. 001-37394))
2.2*	Equity Purchase Agreement, dated July 26, 2020, by and among Black Knight, Inc., GTCR Fund XI/C LP, GTCR/OB Blocker Corp., GTCR/OB Splitter LP, OB Holdings I, LLC, OB Acquisition, LLC, and OB Holdings I, LLC, in its capacity as the Seller Representative (incorporated by reference to Exhibit 2.1 to the Form 8-K filed by Black Knight, Inc. on July 28, 2020 (No. 001-37394))
2.3	Purchase Agreement, dated as of February 15, 2022, by and among Black Knight, Optimal Blue I, Cannae, THL, Optimal Blue Holdco and Black Knight Technologies (incorporated by reference to Exhibit 2.1 to the Form 8-K filed by Black Knight, Inc. on February 15, 2022 (No. 001-37394))
3.1	Second Amended and Restated Certificate of Incorporation of Black Knight, Inc. (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by Black Knight, Inc. on June 13, 2019 (No. 000-37394))
3.2	Amended and Restated Bylaws of Black Knight, Inc. as adopted on October 30, 2019 (incorporated by reference to Exhibit 3.1 to the Form 8-K filed by Black Knight, Inc. on November 4, 2019 ((No. 000-37494))
4.1	Description of Common Stock (incorporated by reference to Exhibit 4.2 to the Form 10-K filed by Black Knight, Inc. on February 28, 2020 (No. 001-37394))
4.2	Indenture among Black Knight InfoServ, LLC, the Guarantors party thereto and Wells Fargo Bank, National Association, dated August 26, 2020 (incorporated by reference to Exhibit 4.1 to the Form 8-K filed by Black Knight, Inc. on August 26, 2020 (No. 001-37394))
4.3	Form of 3.625% Senior Note due 2028 of Black Knight InfoServ, LLC.(incorporated by reference to Exhibit 4.2 to the Form 8-K filed by Black Knight, Inc. on August 26, 2020 (No. 001-37394), which is included as Exhibit A to Exhibit 4.1 to the Form 8-K filed by Black Knight, Inc. on August 26, 2020 (No. 001-37394))
10.1	Amended and Restated Employment Agreement by and between Kirk T. Larsen and BKFS I Management, Inc. dated April 23, 2015 (incorporated by reference to Exhibit 10.11 to Amendment No. 4 to the Form S-1 Registration Statement filed by Black Knight Financial Services, Inc. on May 4, 2015 (No. 333-201241)) (1)
10.2	Employment Agreement by and between BKFS I Management, Inc. and Michael L. Gravelle, effective as of March 1, 2015 (incorporated by reference to Exhibit 10.16 to Amendment No. 3 to the Form S-1 Registration Statement filed by Black Knight Financial Services, Inc. on April 20, 2015 (No. 333-201241)) (1)
10.3	Black Knight, Inc. Deferred Compensation Plan, effective September 15, 2017 (incorporated by reference to Exhibit 10.12 to the Form 10-K filed by Black Knight, Inc. on February 23, 2018 (No. 001-37394)) (1)
10.4	Cross-Indemnity Agreement by and between Black Knight Financial Services, LLC and ServiceLink Holdings, LLC dated as of December 22, 2014 (incorporated by reference to Exhibit 10.20 to Amendment No. 2 to the Form S-1 Registration Statement filed by Black Knight Financial Services, Inc. on March 30, 2015 (No. 333-201241))

10.5	First Amendment to Amended and Restated Employment Agreement by and between Kirk T. Larsen and BKFS I Management, Inc. dated March 17, 2016 (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight Financial Services, Inc. on April 29, 2016 (No. 001-37394)) (1)
10.6	Second Amendment to Employment Agreement by and between BKFS I Management, Inc. and Kirk Larsen effective April 30, 2016 (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight Financial Services, Inc. on August 9, 2016 (No. 001-37394)) (1)
10.7	First Amendment to Employment Agreement by and between BKFS I Management, Inc. and Michael L. Gravelle effective April 30, 2016 (incorporated by reference to Exhibit 10.4 to the Form 10-Q filed by Black Knight Financial Services, Inc. on August 9, 2016 (No. 001-37394)) (1)
10.8	Amended and Restated Employment Agreement by and between Joseph M. Nackashi and BKFS I Management, Inc. effective July 17, 2017 (incorporated by reference to Exhibit 10.2 to the Form 10-Q filed by Black Knight Financial Services, Inc. on July 28, 2017 (No. 001-37394)) (1)
10.9	Employment Agreement by and between BKFS I Services, LLC and Anthony M. Jabbour, effective as of April 1, 2018 (incorporated by reference to Exhibit 10.21 to the Form 10-K filed by Black Knight, Inc. on February 23, 2018 (No. 001-36394)) (1)
10.10	Employment Agreement by and between LPS Management LLC and Shelley Leonard effective as of April 8, 2013 (incorporated by reference to Exhibit 10.3 to the Form 10-Q filed by Black Knight, Inc. on May 5, 2020 (No. 001-36394)) (1)
10.11	Second Amendment to Employment Agreement by and between BKFS I Services, LLC and Michael L. Gravelle effective as of November 1, 2019 (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight, Inc. on November 7, 2019 (No. 001-37394)) (1)
10.12	Amendment to the Restricted Stock Award Agreement (Subject to Time-Based Restriction) (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight Financial Services, Inc. on November 3, 2016 (No. 001-37394))
10.13	Form of Notice of Restricted Stock Grant and Restricted Stock Award Agreement (2017) with a 4 year vesting under Black Knight Financial Services, Inc. 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.41 to the Form 10-K filed by Black Knight Financial Services, Inc. on February 24, 2017 (No. 001-37394)) (1)
10.14	Form of Notice of Restricted Stock Grant and Restricted Stock Award Agreement (2018) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.28 to the Form 10-K filed by Black Knight, Inc. on February 23, 2018 (No. 001-373394)) (1)
10.15	Form of Notice of Restricted Stock Grant and Restricted Stock Award Agreement (2019) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.24 to the Form 10-K filed by Black Knight, Inc. on February 22, 2019 (No. 001-373394)) (1)
10.16	Form of Notice of Restricted Stock and Restricted Stock Award Agreement (Directors) (2020) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight, Inc. on May 5, 2020 (No. 001-37394)) (1)
10.17	Form of Notice of Restricted Stock Grant and Restricted Stock Award Amendment (2020) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.2 to the Form 10-Q filed by Black Knight, Inc. on May 5, 2020 (No. 001-37394)) (1)

10.18	Form of Notice of Restricted Stock and Restricted Stock Award Amendment (2021) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.2 to the Form 10-Q filed by Black Knight, Inc. on May 6, 2021 (No. 001-37394)) (1)
10.19	Form of Notice of Restricted Stock and Restricted Stock Award Agreement (Directors) (2021) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.1 to the Form 10-Q filed by Black Knight, Inc. on August 5, 2021 (No. 001-37394)) (1)
10.20	Form of Notice of Restricted Stock Unit and Restricted Stock Unit Award Agreement (Directors) (2021) under Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 10.2 to the Form 10-Q filed by Black Knight, Inc. on August 5, 2021 (No. 001-37394)) (1)
10.21	Black Knight, Inc. Amended and Restated 2015 Omnibus Incentive Plan (incorporated by reference to Exhibit 99.1 to the Form 8-K filed by Black Knight, Inc. on October 2, 2017 (No. 001-37394)) (1)
10.22	Black Knight, Inc. Employee Stock Purchase Plan, amended and restated effective as of December 5, 2019 (incorporated by reference to Exhibit 10.19 to the Form 10-K filed by Black Knight, Inc. on February 28, 2020 (No. 001-37394)) (1)
10.23	Dun & Bradstreet Holdings, Inc. Common Stock Purchase Agreement, dated June 23, 2020, among Dun & Bradstreet Holdings, Inc. and Black Knight InfoServ, LLC (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by Black Knight, Inc. on June 29, 2020 (No. 001-37394))
10.24	Amended and Restated Credit and Guaranty Agreement, dated as of March 10, 2021, by and among Black Knight InfoServ, LLC, a Delaware limited liability company, as the borrower, JPMorgan Chase Bank, N.A., as Administrative Agent, and the other parties thereto (incorporated by reference to Exhibit 10.1 to the Form 8-K filed by Black Knight, Inc. on March 12, 2021 (No. 001-37394))
10.25	Optimal Blue Holdco, LLC 2020 Incentive Plan (incorporated by reference to Exhibit 10.31 to the Form 10-K filed by Black Knight, Inc. on February 26, 2021 (No. 001-37394)) (1)
10.26	Optimal Blue Holdco, LLC Unit Grant Agreement (2020) (incorporated by reference to Exhibit 10.32 to the Form 10-K filed by Black Knight, Inc. on February 26, 2021 (No. 001-37394)) (1)
21.1	Subsidiaries of the Registrant
23.1	Consent of KPMG LLP, Independent Registered Public Accounting Firm
23.2	Consent of KPMG LLP with respect to the report related to Star Parent, L.P. and its subsidiaries
23.3	Consent of KPMG LLP with respect to the report related to Dun & Bradstreet Holdings, Inc. and its subsidiaries
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 by 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 by Chief Financial Officer of Periodic Financial Reports pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. 18 U.S.C. Section 1350

99.1	Audited Consolidated Financial Statements of Star Parent, L.P. and its subsidiaries as of December 31, 2019 and for the period from February 8, 2019 to December 31, 2019 (incorporated by reference to Exhibit 99.1 to the Form 10-K/A filed by Black Knight, Inc. on March 25, 2020 (001-37394))
99.2	Audited Consolidated Financial Statements of Dun & Bradstreet Holdings, Inc. and its subsidiaries as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019
101.INS	Inline XBRL Instance Document**
101.SCH	Inline XBRL Taxonomy Extension Schema Document
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document
104	Cover Page Interactive Data File formatted in Inline XBRL and contained in Exhibit 101

(1) A management or compensatory plan or arrangement required to be filed as an exhibit to this report pursuant to Item 15(b) of Form 10-K.

* Certain schedules have been omitted pursuant to Item 601(a)(5) of Registration S-K. A copy of any omitted schedule will be furnished to the Securities and Exchange Commission upon request.

** The instance document does not appear in the interactive data file because its XBRL tags are embedded within the inline XBRL document.

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.

Black Knight, Inc.
By: */s/ Anthony M. Jabbour*
Anthony M. Jabbour
Chief Executive Officer

Date: February 25, 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 Chairman of the Board of Directors (Principal Executive Officer)	February 25, 2022
/s/ Kirk T. Larsen Kirk T. Larsen	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 25, 2022
/s/ Michele M. Meyers Michele M. Meyers	Chief Accounting Officer and Treasurer (Principal Accounting Officer)	February 25, 2022
/s/ Catherine L. Burke Catherine L. Burke	Director	February 25, 2022
/s/ Thomas M. Hagerty Thomas M. Hagerty	Director	February 25, 2022
/s/ David K. Hunt David K. Hunt	Director	February 25, 2022
/s/ Joseph M. Otting Joseph M. Otting	Director	February 25, 2022
/s/ Ganesh B. Rao Ganesh B. Rao	Director	February 25, 2022
/s/ John D. Rood John D. Rood	Director	February 25, 2022
/s/ Nancy L. Shanik Nancy L. Shanik	Director	February 25, 2022

Exhibit 21.1

BLACK KNIGHT, INC.
List of Subsidiaries as of December 31, 2021

Subsidiary	State or Other Jurisdiction of Formation
BKFS I Services, LLC	Delaware
Black Knight Data & Analytics, LLC	Delaware
Black Knight Financial Services, Inc.	Delaware
Black Knight Financial Services, LLC	Delaware
Black Knight Government Solutions, LLC	Delaware
Black Knight India Solutions Private Limited	India
Black Knight InfoServ, LLC	Delaware
Black Knight IP Holding Company, LLC	Delaware
Black Knight Lending Solutions, Inc.	Delaware
Black Knight Optimal Blue, Inc.	Delaware
Black Knight Origination Technologies, LLC	Delaware
Black Knight Servicing Technologies, LLC	Delaware
Black Knight Technologies, LLC	Delaware
Collateral Analytics, LLC	Hawaii
Compass Analytics, LLC	California
Dun & Bradstreet Holdings, Inc.	Delaware
eMBS LLC	Florida
OB Acquiror Corp.	Delaware
OB Acquisition, LLC	Delaware
Optimal Blue, LLC	Texas
Optimal Blue Holdco, LLC	Delaware
Optimal Blue Holdings, LLC	Delaware
TOMN Holdings, Inc.	Delaware

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (Nos. 333-229712, 333-220786, 333-219871, 333-204317 and 333-205784) on Form S-8 and in the registration statements (Nos. 333-239210 and 333-217774) on Form S-3 of our reports dated February 25, 2022, with respect to the consolidated financial statements of Black Knight, Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Jacksonville, Florida
February 25, 2022

Exhibit 23.2

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-239210 and 333-217774) on Form S-3 and (No. 333-229712, 333-220786, 333-219871, 333-204317 and 333-205784) on Form S-8 of Black Knight, Inc. of our report dated March 17, 2020, with respect to the consolidated financial statements of Star Parent, L.P., which report appears in the annual report on Form 10-K of Black Knight, Inc.

/s/ KPMG LLP

New York, New York
February 24, 2022

Exhibit 23.3

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-239210 and 333-217774) on Form S-3 and (No. 333-229712, 333-220786, 333-219871, 333-204317 and 333-205784) on Form S-8 of Black Knight, Inc. of our report dated February 24, 2022, with respect to the consolidated financial statements and the effectiveness of internal control over financial reporting of Dun & Bradstreet Holdings, Inc., which report appears in the annual report on Form 10-K of Black Knight, Inc.

/s/ KPMG LLP

New York, New York
February 24, 2022

Exhibit 31.1

CERTIFICATIONS

I, Anthony M. Jabbour, certify that:

1. I have reviewed this annual report on Form 10-K of Black Knight, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2022

By: */s/ Anthony M. Jabbour*
Anthony M. Jabbour
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Kirk T. Larsen, certify that:

1. I have reviewed this annual report on Form 10-K of Black Knight, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

(c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2022

By: */s/ Kirk T. Larsen*
Kirk T. Larsen
Executive Vice President and Chief Financial Officer

Exhibit 32.1

CERTIFICATION OF PERIODIC FINANCIAL REPORTS PURSUANT TO 18 U.S.C. §1350

The undersigned hereby certifies that he is the duly appointed and acting Chief Executive Officer of Black Knight, Inc., a Delaware corporation (the “Company”), and hereby further certifies as follows.

1. The periodic report containing financial statements to which this certificate is an exhibit fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934.

2. The information contained in the periodic report to which this certificate is an exhibit fairly presents, in all material respects, the financial condition and results of operations of the Company.

In witness whereof, the undersigned has executed and delivered this certificate as of the date set forth opposite his signature below.

Date: February 25, 2022

By: */s/ Anthony M. Jabbour*
Anthony M. Jabbour
Chief Executive Officer

Exhibit 32.2

CERTIFICATION OF PERIODIC FINANCIAL REPORTS PURSUANT TO 18 U.S.C. §1350

The undersigned hereby certifies that he is the duly appointed and acting Executive Vice President and Chief Financial Officer of Black Knight, Inc., a Delaware corporation (the "Company"), and hereby further certifies as follows.

1. The periodic report containing financial statements to which this certificate is an exhibit fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934.

2. The information contained in the periodic report to which this certificate is an exhibit fairly presents, in all material respects, the financial condition and results of operations of the Company.

In witness whereof, the undersigned has executed and delivered this certificate as of the date set forth opposite his signature below.

Date: February 25, 2022

By: */s/ Kirk T. Larsen*
Kirk T. Larsen
Executive Vice President and Chief Financial Officer

Exhibit 99.2

Dun & Bradstreet Holdings, Inc.

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) /	$ (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) /	$ (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.

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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.

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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.

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

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:

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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)

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.

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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.

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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.

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

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.

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.

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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.

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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
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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:

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.

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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).

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:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

		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.

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):

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
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	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.

The right of use assets and lease liabilities included in our balance sheet are as follows:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
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	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
2024	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:

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	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.

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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)

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	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)

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.

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

(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.

Deferred tax assets (liabilities) are comprised of the following:

	December 31,	
	2021	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

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$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.

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.

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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)

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	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.

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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
	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
Components of net periodic cost (income):								
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.

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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.

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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.

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

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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.

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

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.

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 %

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(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.

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:

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(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 (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.

The following table summarizes the restricted stock, restricted stock units and stock options granted during the years ended December 31, 2021 and 2020:

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

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:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

	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:

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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.

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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

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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

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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.

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

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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.

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

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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)	$ —

	Amount of gain or (loss) recognized in income on derivative			
	Successor			Predecessor
Location of gain or (loss) recognized in income on derivative	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)	$ —

Amounts expected to be reclassified into earnings, net over the next 12 months is less than $0.1 million.

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			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
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

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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

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:

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

	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."

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:

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

		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.

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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.

The table below reflects the purchase price related to the acquisition and the resulting purchase allocation:

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	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.

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.

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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.

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(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. 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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

	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

	Year ended December 31, 2021	Year ended December 31, 2020
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)

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.

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

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.

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:

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

	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.

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

	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

(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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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 and building are measured as if the building was vacant. The approaches used to value the building components include the

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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).

Other Intangibles:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

	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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(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

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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.

(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

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(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.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(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.

Supplemental Geographic and Customer Solution Set Information:

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS - Continued
(Tabular dollar amounts, except share data and per share data, in millions)

	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.

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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.

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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 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).

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

	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.

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