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, 2020

or

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to

Commission File Number 001-35985

CDW CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	**26-0273989**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
75 Tri-State International Lincolnshire , Illinois	**60069**
(Address of principal executive offices)	(Zip Code)

(847) 465-6000
(Registrant's telephone number, including area code)
None
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading symbol(s)	Name of each exchange on which registered
Common stock, par value $0.01 per share	CDW	Nasdaq Global Select Market

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 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 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. Yes ☒ No ☐

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 voting and non-voting common equity held by non-affiliates of the registrant as of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, was $16,514 million, based on the per share closing sale price of $116.18 on that date.

As of February 23, 2021, there were 140,991,095 shares of common stock, $0.01 par value, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain parts of the registrant's definitive proxy statement for its 2021 annual meeting of stockholders to be held on May 20, 2021, which will be filed with the Securities and Exchange Commission on or before April 30, 2021, are incorporated by reference into Part III of this Annual Report on Form 10-K.

CDW CORPORATION AND SUBSIDIARIES

ANNUAL REPORT ON FORM 10-K
Year Ended December 31, 2020

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FORWARD-LOOKING STATEMENTS

This report contains "forward-looking statements" within the meaning of the federal securities laws. All statements other than statements of historical fact are forward-looking statements. These statements relate to analyses and other information, which are based on forecasts of future results or events and estimates of amounts not yet determinable. These statements also relate to our future prospects, developments and business strategies. We claim the protection of The Private Securities Litigation Reform Act of 1995 for all forward-looking statements in this report.

These forward-looking statements are identified by the use of terms and phrases such as "anticipate," "assume," "believe," "estimate," "expect," "goal," "intend," "plan," "potential," "predict," "project," "target" and similar terms and phrases or future or conditional verbs such as "could," "may," "should," "will," and "would." However, these words are not the exclusive means of identifying such statements. Although we believe that our plans, intentions and other expectations reflected in or suggested by such forward-looking statements are reasonable, we cannot assure you that we will achieve those plans, intentions or expectations. All forward-looking statements are subject to risks and uncertainties that may cause actual results or events to differ materially from those that we expected.

Important factors that could cause actual results or events to differ materially from our expectations, or cautionary statements, are disclosed under the sections entitled "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this report. All written and oral forward-looking statements attributable to us, or persons acting on our behalf, are expressly qualified in their entirety by those cautionary statements as well as other cautionary statements that are made from time to time in our other Securities and Exchange Commission ("SEC") filings and public communications. You should evaluate all forward-looking statements in the context of these risks and uncertainties.

We caution you that the important factors referenced above may not reflect all of the factors that could cause actual results or events to differ from our expectations. In addition, we cannot assure you that we will realize the results or developments we expect or anticipate or, even if substantially realized, that they will result in the consequences or affect us or our operations in the way we expect. The forward-looking statements included in this report are made only as of the date hereof or, with respect to any documents incorporated by reference, available at the time such document was prepared or filed with the SEC. We undertake no obligation to publicly update or revise any forward-looking statement as a result of new information, future events or otherwise, except as otherwise required by law.

PART I

Item 1. Business

Our Company

CDW Corporation (together with its subsidiaries, the "Company," "CDW" or "we"), a Fortune 500 company and member of the S&P 500 Index, is a leading multi-brand provider of information technology ("IT") solutions to small, medium and large business, government, education and healthcare customers in the United States ("US"), the United Kingdom ("UK") and Canada. Our broad array of offerings ranges from discrete hardware and software products to integrated IT solutions and services that include on-premise, hybrid and cloud capabilities across data center and networking, digital workspace, security and virtualization.

We are vendor, technology and consumption model "agnostic", with a solutions portfolio including more than 100,000 products and services from more than 1,000 leading and emerging brands. Our solutions are delivered in physical, virtual and cloud-based environments through approximately 7,000 customer-facing coworkers, including sellers, highly-skilled technology specialists and advanced service delivery engineers. We are a leading sales channel partner for many original equipment manufacturers ("OEMs"), software publishers and cloud providers (collectively, our "vendor partners"), whose products we sell or include in the solutions we offer. We provide our vendor partners with a cost-effective way to reach customers and deliver a consistent brand experience through our established end-market coverage, technical expertise and extensive customer access.

We simplify the complexities of technology across design, selection, procurement, integration and management for our customers. Our goal is to have our customers, regardless of their size, view us as a trusted adviser and extension of their IT resources. Our multi-brand offering approach enables us to identify the products or combination of products from our vendor partners that best address each customer's specific IT requirements.

We have capabilities to provide integrated IT solutions in more than 150 countries for customers with primary locations in the US, UK and Canada, which are large and growing markets. According to the International Data Corporation ("IDC"), the total US, UK and Canadian IT market generated approximately $1 trillion in sales in 2020. We believe our addressable markets in the US, UK and Canada represent approximately $360 billion in annual sales. These are highly fragmented markets served by thousands of IT resellers and solutions providers. For the year ended December 31, 2020, we estimate that our total Net sales of $18.5 billion represented approximately 5% of our addressable markets. We believe that demand for IT will continue to outpace general economic growth in the markets we serve, fueled by new technologies, including hybrid and cloud computing, virtualization and mobility as well as growing end-user demand for security, efficiency and productivity.

Value Proposition

We are positioned in the middle of the IT ecosystem where we procure products from OEMs, software publishers, cloud providers and wholesale distributors and provide added value to our customers by helping them navigate through complex options and implement the best solution for their business. In this role, we believe we provide unique value to both our vendor partners and our customers.

Our value proposition to our customers

- Broad selection of products and multi-branded IT solutions
- Value-added services with integration capabilities
- Highly-skilled specialists and engineers
- Solutions across IT lifecycle

Our value proposition to our vendor partners

- Access to over 250,000 customers
- Large and established customer channels
- Strong distribution and implementation capabilities
- Customer relationships driving insight into technology roadmaps

Customers

We provide integrated IT solutions to over 250,000 small, medium and large business, government, education and healthcare customers throughout the US, UK and Canada.

We serve our customers through sales teams focused on customer end-markets that are supported by technical specialists and highly-skilled service delivery engineers. Our market segmentation allows us to customize our offerings and to provide enhanced expertise in designing and implementing IT solutions that meet our customer's specific needs.

We have three reportable segments, Corporate, Small Business and Public. Our Corporate segment primarily serves US private sector business customers with more than 250 employees. Our Small Business segment primarily serves US private sector business customers with up to 250 employees. Our Public segment is comprised of government agencies and education and healthcare institutions in the US. We also have two other operating segments: CDW UK and CDW Canada, each of which do not meet the reportable segment quantitative thresholds and, accordingly, are included in an all other category ("Other").

In our US business, which represents approximately 90% of our revenues, we currently have five dedicated customer channels: corporate, small business, government, education and healthcare, each of which generated $1.4 billion or greater in Net sales in 2020. Net sales to customers in the UK and Canada combined generated $2.1 billion in 2020. We believe this diversity of customer end-markets provides us with multiple avenues for growth and has been a key factor in our ability to weather economic and technology cycles and continue to gain market share.

Partners

We provide more than 100,000 products and services from more than 1,000 partners, including well-established companies such as Adobe, APC, Apple, Cisco, Dell EMC, Google, Hewlett Packard Enterprise, HP Inc., IBM, Intel, Lenovo, Microsoft, NetApp, Nutanix, Palo Alto Networks, Poly, Samsung, and VMware, as well as from emerging technology companies to expand our portfolio. This broad portfolio of partners and technologies enables us to offer customers significant options and meet customer demand for the products and solutions that best meet their needs. We believe our value proposition to vendor partners enables us to evolve our offering as new technologies emerge and new companies seek us as a channel partner.

In 2020, we generated over $1.0 billion of Net sales from each of six vendor partners and over $100 million of Net sales from each of fourteen other vendor partners. We have received the highest level of certification from major vendor partners such as Cisco, Dell EMC, Hewlett Packard Enterprise, LG, Microsoft, Palo Alto Networks, Samsung, and VMware which reflects the extensive product and solution knowledge and capabilities that we bring to our customers' IT challenges. These certifications also provide us with access to favorable pricing, tools and resources, including vendor incentive programs, which we use to provide additional value to our customers. Our vendor partners also regularly recognize us with top awards and select us to develop and grow new customer solutions.

Product Procurement

We may purchase all or only some of the products our vendor partners offer for resale to our customers or for inclusion in the solutions we offer. Each vendor partner agreement provides for specific terms and conditions, which may include one or more of the following: product return privileges, price protection policies, purchase discounts and vendor incentive programs, such as purchase or sales rebates and cooperative advertising reimbursements. We also purchase software from major software publishers and cloud providers for resale to our customers or for inclusion in the solutions we offer. Our agreements allow the end-user customer to acquire cloud-based solutions software or licensed products and services.

In addition to purchasing products directly from our vendor partners, we purchase products from wholesale distributors for resale to our customers or for inclusion in the solutions we offer. These wholesale distributors provide logistics management and supply-chain services for us, as well as for our vendor partners.

For our US operations in 2020, we purchased approximately 50% of the products we sold as discrete products or as components of a solution directly from our vendor partners and the remaining 50% from wholesale distributors. Purchases from our three largest wholesale distributors, Ingram Micro, SYNNEX and Tech Data, were each approximately 10% of total US purchases in 2020.

Inventory Management

We operate two distribution centers in North America: a 513,000 square foot facility in North Las Vegas, Nevada, and a 442,000 square foot facility in Vernon Hills, Illinois. We also operate a 120,000 square foot distribution center in Rugby, Warwickshire, UK. Leveraging our distribution and logistics capabilities, we handle and ship over 40 million units annually on an aggregate basis from our distribution centers.

We also have drop-shipment arrangements with many of our OEMs and wholesale distributors, which permit us to offer products to our customers without having to take physical delivery at our distribution centers. These arrangements represented approximately 50% of total North America Net sales in 2020. Electronic delivery for software licenses are approximately 15% of total North America Net sales in 2020.

We believe that the location of our distribution centers allows us to efficiently ship products to our customers and provide timely access to our principal distributors. We believe that our logistics and configuration capabilities delivered by our highly skilled and certified team enable us to customize technology for our customers to meet their unique needs.

We believe competitive sources of supply are available in substantially all of the product categories that we offer.

Competition

The market for technology products and services is highly competitive and subject to economic conditions and rapid technological changes. Competition is based on many things, including the ability to tailor specific solutions to customer needs, the quality and breadth of product and service offerings, knowledge and expertise of sales force, customer service, price, product availability, speed of delivery and credit availability. We face competition from resellers, direct manufacturers, large service providers, cloud providers, telecommunication companies, and to a lesser extent e-tailers and retailers. Smaller, local or regional value-added resellers typically focus on a single solution suite or portfolio of solutions from one or two vendor partners.

We believe we are well positioned to compete within this marketplace due to our competitive advantages. We expect the competitive landscape to continue to evolve as new technologies are developed. While innovation can help our business as it creates new offerings for us to sell, it can also disrupt our business model and create new and stronger competitors. For additional information on the risks associated with competition, see "Item 1A. Risk Factors."

We believe we have sustainable competitive advantages that differentiate us in the marketplace. We have built a strong sales organization and deep services and solutions capabilities over time and expect to continue to invest to enhance these capabilities, which we believe when combined with our competitive advantages of scale and a performance driven culture, will help drive sustainable, profitable growth for us today and in the future. Our scale enables us to have a national and international footprint, as well as invest in resources to meet specific customer end-market needs. Our sellers are organized around unique customer end-markets that are both vertically and geographically focused. Our scale enables our ability to invest in technical coworkers who work directly with our sellers to help customers implement increasingly complex IT solutions. Our scale also enables us to operate our three distribution centers (two in the US and one in the UK), which combined are more than 1 million square feet in size. We have cross-border relationships that enable us to serve the needs of our US, UK and Canadian-based customers in more than 150 countries. Our strong, execution-oriented culture is underpinned by our compensation system.

Our Offerings

Our offerings range from discrete hardware and software products and services to complex integrated solutions including one or more of these elements. We believe our customers increasingly view technology purchases as integrated solutions rather than discrete product and services categories. We estimate that more than 40% of our Net sales in 2020 in the US came from sales of product categories and services typically associated with solutions. Our hardware products include notebooks/mobile devices (including tablets), network communications, desktop computers, video monitors, enterprise and data storage, and other hardware. Our software products include application suites, security, virtualization, operating systems and network management. Our services include advisory and design, software development, implementation, managed services and warranties.

IT is critical to both "run the business" and drive greater growth and productivity. To help our customers accomplish this, we have built a robust portfolio of solutions across data center, digital workspace, security, virtualization and services that we provide in physical, virtual, or cloud-based environments.

We provide customers with cloud solutions and services through public cloud solutions, which reside off customer premises on a public (shared) infrastructure, private cloud solutions, which reside on customer premises, and hybrid cloud solutions that deliver the benefits of both public and private solutions. Our migration, integration and managed services help our customers simplify cloud adoption, as well as the ongoing management of cloud solutions, across the entire IT lifecycle. Service delivery engineers work with our customers to design cloud solutions meeting their organizational, technology and financial objectives.

We offer a broad portfolio of integrated solutions that include the following on-premise, hybrid and cloud capabilities:

- *Data Center and Networking:* We assess our customers application infrastructure need, design flexible, resilient and efficient solutions and manage the solution throughout its lifecycle. Our broad portfolio of hardware and software products, encompassing both on and off-premise solutions, enables us to provide well-integrated solutions, including converged and hyper-converged infrastructure, physical and virtualized servers, software defined automation and orchestration solutions, hybrid storage, energy-efficient power and cooling, and networking.
- *Digital Workspace:* We build end-to-end solutions that deliver access to applications that improve our customers' productivity regardless of device or location. We connect our customers' physical devices, including laptops, desktops, IP Phones, mobile devices and print systems. We utilize collaboration solutions to unite applications via the integration of products that facilitate the use of multiple enterprise communication methods including email, persistent chat, social media, voice and video. We also host cloud-based collaboration solutions. Our solutions provide the tools that allow

our customers' employees to share knowledge, ideas and information among each other and with clients and partners effectively, securely and quickly.

- *Security*: We assess our customers' security needs and provide them with tools and services to help effectively manage risk. We are a security solutions integrator that combines our expertise in design, solution architecture and implementation services. Our customer solutions can take the form of hardware, software or Software as a Service across a multitude of categories such as: endpoint security, email security, web security, intrusion prevention, authentication, firewall, virtual private network services and network access control. Security consulting engagements include security assessment, policy and procedure gap analysis, security roadmaps and health checks.

- *Virtualization*: We design and implement server, storage and desktop virtualization solutions. Virtualization enables our customers to efficiently utilize infrastructure resources by running multiple, independent, virtual operating systems or containers on a single computer and multiple virtual compute instances simultaneously on a single server. Virtualization also can separate a desktop environment and associated application software from the hardware device that is used to access it, and provides employees with remote desktop access. Our specialists assist customers with the steps of implementing virtualization solutions, including evaluating network environments, software tools and development processes, deploying shared storage options and licensing platform software.

- *Services*: We help organizations design, orchestrate and manage technology for their unique needs. Our offerings are designed to highlight our expertise in the most critical technology areas for our customers. Our service delivery engineers have expertise which include integrated cloud, collaboration, data center, mobility and security business technology, from the physical to the application laye r. We leverage best-in-class partner technology platforms to seamlessly architect and manage disparate IT platforms into integrated business technology solutions.

Although we believe customers increasingly view technology purchases as solutions rather than discrete product and service categories, our Net sales by major category, based upon our internal category classifications, was as follows:

	Year Ended December 31,					
	2020		2019(1)		2018(1)	
	Dollars in Millions	Percentage of Total Net Sales	Dollars in Millions	Percentage of Total Net Sales	Dollars in Millions	Percentage of Total Net Sales
Notebooks/Mobile Devices	$ 5,486.2	29.7 %	$ 4,344.9	24.1 %	$ 3,843.3	23.7 %
Netcomm Products	1,955.0	10.6	2,189.1	12.1	2,116.6	13.0
Desktops	1,132.4	6.1	1,547.3	8.6	1,254.9	7.7
Video	1,190.8	6.4	1,272.9	7.1	1,184.1	7.3
Enterprise and Data Storage (Including Drives)	947.4	5.1	1,147.6	6.4	1,102.4	6.8
Other Hardware	4,121.6	22.3	3,980.4	22.1	3,630.4	22.4
Total Hardware	14,833.4	80.2	14,482.2	80.4	13,131.7	80.9
Software(2)	2,581.0	14.0	2,585.0	14.3	2,299.1	14.2
Services(2)	913.9	4.9	840.9	4.7	695.9	4.3
Other(3)	139.2	0.9	124.3	0.6	113.8	0.6
Total Net sales	$ 18,467.5	100.0 %	$ 18,032.4	100.0 %	$ 16,240.5	100.0 %

(1) Amounts have been reclassified for changes in individual product classifications to conform to the presentation for the year ended December 31, 2020.

(2) Certain software and services revenue is recorded on a net basis for accounting purposes, so the category percentage of Net sales is not representative of the category percentage of gross profits.

(3) Includes items such as delivery charges to customers.

Our Internal Capabilities

Human Capital Management

Our culture is reflected through our coworkers, who are driven to serve our customers, our partners, our communities and all our stakeholders. We provide our coworkers with diverse experiences, engagement opportunities, strong training and development, competitive compensation and meaningful careers, which creates a high-performance culture that is central to CDW's success. We know that an inclusive environment produces the best ideas and our coworkers are driven to finding the best technology solutions to enable the mission-driven needs of our customers.

We have approximately 10,000 coworkers across the globe, with 7,800 coworkers in the US, 1,400 in the UK and 800 in Canada. More than 50% of our US Net sales are generated by account managers who have more than seven years of tenure with CDW. Our coworker relations are strong and none of our coworkers are covered by collective bargaining agreements.

Diversity, Equity and Inclusion

CDW's commitment to diversity, equity and inclusion is a core value-shaping who we are, and how we work, grow and do business. We remain steadfast in our commitment to a culture of inclusion and equity, where everyone feels they belong.

Our diversity, equity and inclusion efforts prioritize fostering an inclusive environment for coworkers and job candidates that cannot be separated from how we work with customers, partners and the community. It all comes back to our character, values and ethics as an organization. We are intent on making sure our values are not just words on a page, but spur behavior where everyone feels they are seen, heard and valued.

Training & Development

We focus on skills enhancement, leadership development, innovation excellence and professional growth throughout our coworkers' careers at CDW. Our programs include: leadership development trainings, unique developmental opportunities for our high-potential emerging leaders, a 24-month training program for new North American sales coworkers, an 18-month apprentice-style program for aspiring engineers, and coworker access to over 15,000 on-demand, educational modules.

Total Rewards

Our Pay-for-Performance total rewards philosophy provides market competitive compensation aligned with company performance. We further align our sellers' compensation to their individual performance by providing substantially uncapped commission opportunity. We provide a comprehensive benefits package to our coworkers, including healthcare, retirement plans with profit sharing and match, tuition assistance, inclusive parental leave policies, adoption assistance, paid time off, paid volunteer hours and philanthropic match programs based upon eligibility and location.

Health and Safety

At the beginning of the pandemic, we identified three key principles, which have guided us. First, safeguard the health and well-being of our coworkers, second, serve the mission-driven needs of our customers, and third, support our communities. We implemented precautions to help keep our coworkers healthy and safe, including activating a cross-functional response team led by senior leadership, moving to remote work for our office coworkers, and implementing safety protocols at our distribution centers, including social distancing measures, segmented shifts, additional personal protective equipment, enhanced facility cleanings, temperature screening for anyone entering the facilities, expanded health and safety training, increased available mental health resources, and increased sick days for impacted coworkers.

Oversight and Management

Our Coworker Services organization is responsible for the strategy and management of coworker-related matters, working in concert with all our leaders. Our Board understands the importance of our inclusive, performance-driven culture to our ongoing success and is actively engaged with our President and Chief Executive Officer and our Chief Human Resources Officer across a broad range of human capital management topics.

Marketing

We market the CDW brand to US, UK and Canadian audiences using a variety of channels that include online, broadcast, print, social and other media. We market to current and prospective customers through integrated marketing programs including behaviorally targeted email, print, online media, events and sponsorships, as well as broadcast media. This promotion is also supported by integrated communication efforts targeting decision-makers, influencers and the general public using a combination of news releases, case studies, media interviews and speaking opportunities.

As a result of our relationships with our vendor partners, a significant portion of our advertising and marketing expenses is reimbursed through cooperative advertising programs. These programs are at the discretion of our vendor partners and are typically tied to sales or other commitments to be met by us within a specified period of time. We believe that our results and analytical techniques that measure the efficacy of our marketing programs differentiate us from our competitors.

Information Technology Systems

We maintain customized IT and unified communication systems that enhance our ability to provide prompt, efficient and expert service to our customers. In addition, these systems enable centralized management of key functions, including purchasing, inventory management, billing and collection of accounts receivable, sales and distribution. Our systems provide us with thorough and detailed information regarding key aspects of our business. These capabilities help us to continuously enhance productivity, ship customer orders quickly and efficiently, respond appropriately to industry changes and provide high levels of customer service. We believe our websites, which provide electronic order processing and advanced tools, such as order tracking, reporting and asset management, make it easy for customers to transact business with us and ultimately strengthen our customer relationships.

History

Founded in 1984, CDW became a public company in 1993. In 2006, we acquired Berbee Information Networks Corporation to expand our capabilities in customized engineering services and managed services. In 2007, we went private and then became public again in 2013.

In 2015, we acquired control of 100% of UK-based IT solutions provider, Kelway TopCo Limited. Rebranded CDW UK in 2016, the acquisition extended our footprint into the UK.

In 2019, we acquired Canada-based technology solutions provider, Scalar Decisions Inc.

Since 2019, we have made several smaller acquisitions to expand our capabilities in high-growth solutions and services areas, including ServiceNow and cloud native capabilities.

Available Information

We maintain a website at www.cdw.com. You may access our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 with the SEC free of charge at our website as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. Our website and the information contained on that site, or connected to that site, are not incorporated into and are not a part of this report.

Item 1A. Risk Factors

There are many factors that could adversely affect our business, results of operations and cash flows, some of which are beyond our control. The following is a description of some important factors that may cause our business prospects, results of operations and cash flows in future periods to differ materially from those currently expected or desired. Factors not currently known to us or that we currently deem to be immaterial may also materially and adversely affect our business, results of operations and cash flows.

Business and Operational Risks

The outbreak of the novel coronavirus ("COVID-19") pandemic has adversely impacted and could continue to adversely impact our business and results of operations and could also adversely impact our cash flows, financial condition and liquidity.

The global spread of COVID-19 continues to create significant macroeconomic uncertainty, volatility and disruption. Many governments and health authorities have implemented recommendations or mandates intended to slow the further spread of the disease, such as shelter-in-place orders, resulting in the temporary closure of schools and non-essential businesses, or social distancing measures, resulting in modified operations of various businesses including ours, and these measures may remain in place for a significant period of time. While some of these restrictions have been lifted or eased in certain jurisdictions, the resurgence of COVID-19 in other jurisdictions has slowed, and in some cases reversed, the reopening process. We could experience disruptions, including as a result of resurgences of COVID-19, that prevent us from meeting the demands of our customers, such as product constraints from our vendor partners and wholesale distributors and other disruptions to our supply chain, disruptions in or restrictions on the ability of our coworkers to work effectively, temporary closures of our distribution facilities, modifications in the operation of facilities that remain open and disruptions of commercial delivery services. The impact of COVID-19 and measures implemented to slow the spread have caused and could continue to cause delay in, or limit the ability of, our customers to make timely payments to us and could materially increase our costs. In addition, the pandemic has resulted in a widespread health crisis that has adversely affected the economies and financial markets of many countries, including the US, the UK and Canada. During the COVID-19 pandemic and even after it has subsided, we may experience adverse impacts to our business as a result of the pandemic's global economic impact, including any recession, economic downturn or volatility, government spending cuts, tightening of credit markets or increased unemployment that has occurred or may occur in the future, which could cause our customers and potential customers to postpone or reduce spending on technology products or services or put downward pressure on prices.

Individually and collectively, the consequences of the COVID-19 pandemic have adversely impacted and could continue to adversely impact our business and results of operations and could also adversely impact our cash flows, financial condition and liquidity. The extent to which the COVID-19 pandemic continues to impact our business, results of operations, cash flows, financial condition and liquidity will depend on future developments, which are highly uncertain and cannot be predicted, including, but not limited to, the duration, the severity and further spread of the outbreak, future resurgences and reimplementation of closures, the availability, efficacy and acceptance of a vaccine, and actions taken to contain the virus, and the effectiveness of these actions and how quickly and to what extent normal economic and operating conditions can resume and be sustained. The COVID-19 pandemic has and may continue to have the effect of heightening many of the other risks described in this "Risk Factors" section.

Our business depends on our vendor partner relationships and the terms of the agreements governing those relationships.

Our solutions portfolio includes products from OEMs, software publishers and cloud providers. We are authorized by these vendor partners to sell all or some of their products via direct marketing activities. Our authorization with each vendor partner is subject to specific terms and conditions regarding such things as sales channel restrictions, product return privileges, price protection policies, purchase discounts and vendor partner programs and funding, including purchase rebates, sales volume rebates, purchasing incentives and cooperative advertising reimbursements. However, we do not have any long-term contracts with our vendor partners and many of these arrangements are terminable upon notice by either party. A reduction in vendor partner programs or funding or our failure to timely react to changes in vendor partner programs or funding could have an adverse effect on our business, results of operations or cash flows. In addition, a reduction in the amount or a change in the terms of credit granted to us by our vendor partners could increase our need for, and the cost of, working capital and could have an adverse effect on our business, results of operations or cash flows, particularly given our level of indebtedness.

From time to time, vendor partners may terminate or limit our right to sell some or all of their products or change the terms and conditions or reduce or discontinue the incentives that they offer us. For example, there is no assurance that, as our vendor partners continue to sell directly to end users and through resellers, they will not limit or curtail the availability of their products to solutions providers like us. Any such termination or limitation or the implementation of such changes could have a negative impact on our business, results of operations or cash flows.

We purchase the products included in our portfolio both directly from our vendor partners and from wholesale distributors. Although we purchase from a diverse vendor base, in 2020, products we purchased from wholesale distributors Ingram Micro, SYNNEX and Tech Data each represented approximately 10% of total US purchases. In addition, sales of products manufactured by Apple, Cisco, Dell EMC, HP Inc., Lenovo and Microsoft, whether purchased directly from these vendor partners or from a wholesale distributor, represented approximately 60% of our 2020 consolidated Net sales. Sales of products manufactured by Dell EMC and HP Inc. represented approximately 25% of our 2020 consolidated Net sales. The loss of, or change in business relationship with, any of these or any other key vendor partners, or the diminished availability of their products, including due to backlogs for their products, could reduce the supply and increase the cost of products we sell and negatively impact our competitive position.

Further, the sale, spin-off or combination of any of our vendor partners and/or certain of their business units, including any such sale to or combination with a vendor with whom we do not currently have a commercial relationship or whose products we do not sell, or our ability to develop relationships with and sell hardware, software and services from new and emerging vendors and vendors that we have not historically represented in the marketplace, could have an adverse impact on our business, results of operations or cash flows.

Our sales are dependent on continued innovations in hardware, software and services offerings by our vendor partners and the competitiveness of their offerings, and our ability to partner with new and emerging technology providers.

The technology industry is characterized by rapid innovation and the frequent introduction of new and enhanced hardware, software and services offerings, such as cloud-based solutions, including Software as a Service ("SaaS"), Infrastructure as a Service ("IaaS") and Platform as a Service ("PaaS"); Device as a Service ("DaaS"); the Internet of Things ("IoT"); and artificial intelligence. We have been and will continue to be dependent on innovations in hardware, software and services offerings, as well as the acceptance of those innovations by customers. Also, customers may delay spending while they evaluate new technologies. A decrease in the rate of innovation, a lack of acceptance of innovations by our customers or delays in technology spending by our customers, could have an adverse effect on our business, results of operations or cash flows.

In addition, if we are unable to keep up with changes in technology and new hardware, software and services offerings, for example by providing the appropriate training to our account managers, sales technology specialists and engineers to enable them to effectively sell and deliver such new offerings to customers, our business, results of operations or cash flows could be adversely affected.

We also are dependent upon our vendor partners for the development and marketing of hardware, software and services to compete effectively with hardware, software and services of vendors whose products and services we do not currently offer or that we are not authorized to offer in one or more customer channels. To the extent that a vendor's offering that is in high demand is not available to us for resale in one or more customer channels, and there is not a competitive offering from another vendor that we are authorized to sell in such customer channels, or if we are unable to develop relationships with new technology providers or companies that we have not historically represented, our business, results of operations or cash flows could be adversely impacted.

Substantial competition could reduce our market share and significantly harm our financial performance.

Our current competition includes:

- resellers, such as Computacenter, Connection, ePlus, Insight Enterprises, NTT, Presidio, SCC, Softchoice, World Wide Technology and many smaller resellers;
- manufacturers who sell directly to customers, such as Adobe, Apple, Dell EMC, HP Inc. and Hewlett Packard Enterprise;
- large service providers and system integrators, such as Accenture, Dell EMC, Hewlett Packard Enterprise and IBM;
- communications service providers, such as AT&T, CenturyLink and Verizon;
- cloud providers, such as Amazon Web Services, Google and Microsoft;
- e-tailers, such as Amazon and Newegg; and
- retailers (including their e-commerce activities), such as Office Depot and Staples.

We expect the competitive landscape to continue to evolve as new technologies and consumption models are developed, such as cloud-based and other "as a service" solutions, hyper-converged infrastructure and embedded software solutions. While innovation can help our business as it creates new offerings for us to sell, it can also disrupt our business model and create new and stronger competitors. For instance, while cloud-based solutions present an opportunity for us, cloud-based solutions and technology solutions as a service could increase the amount of sales directly to customers rather than through solutions providers like us, or could reduce the amount of hardware we sell. In addition, some of our hardware and software vendor partners sell, and could intensify their efforts to sell, their products directly to our customers. Moreover, traditional OEMs have increased their services capabilities through mergers and acquisitions with service providers, which could potentially increase competition in the market to provide comprehensive technology solutions to customers. If we are unable to effectively respond to the evolving competitive landscape, or respond in a manner that is less effective than that of our competitors, our business, results of operations or cash flows could be adversely impacted.

We focus on offering a high level of service to gain new customers and retain existing customers. To the extent we face increased competition to gain and retain customers, we may be required to reduce prices, increase advertising expenditures or take other actions which could adversely affect our business, results of operations or cash flows. Additionally, some of our competitors may reduce their prices in an attempt to stimulate sales, which may require us to reduce prices. This would require us to sell a greater number of products to achieve the same level of Net sales and Gross profit. If such a reduction in prices occurs and we are unable to attract new customers and sell increased quantities of products, our sales growth and profitability could be adversely affected.

The success of our business depends on the continuing development, maintenance and operation of our information technology systems.

Our success is dependent on the accuracy, proper utilization and continuing maintenance and development of our information technology systems, including our business systems, such as our sales, customer management, financial and accounting, marketing, purchasing, warehouse management, e-commerce and mobile systems, as well as our operational platforms, including voice and data networks and power systems. The quality and our utilization of the information generated by our information technology systems, and our success in implementing new systems and upgrades, affects, among other things, our ability to:

- conduct business with our customers, including delivering services and solutions to them;
- manage our inventory, accounts receivable and accounts payable;
- support planned growth in services and solutions and continued evolution of the business;
- purchase, sell, ship and invoice our hardware and software products and provide and invoice our services efficiently and on a timely basis; and
- maintain our cost-efficient operating model while scaling our business.

The integrity of our information technology systems is vulnerable to disruption due to forces beyond our control. While we have taken steps to protect our information technology systems from a variety of threats, both internal and external, and from human error, there can be no guarantee that those steps will be effective. Furthermore, although we have redundant systems at a separate location to back up our primary systems, there can be no assurance that these redundant systems will operate properly if and when required. Any disruption to or infiltration of our information technology systems could significantly harm our business or results of operations.

Breaches of data security and the failure to protect our information technology systems from cybersecurity threats could adversely impact our business.

Our business involves the storage and transmission of proprietary information and sensitive or confidential data, including personal information of coworkers, customers and others. In connection with our services business, some of our coworkers have access to our customers' confidential data and other information. Additionally, third parties, such as data center colocation and hosted solution partners, provide services to us and as a component of our services delivery to customers. These third parties could also be a source of security risk in the event of a failure of their own security systems and infrastructure. We have privacy and data security policies, practices and controls in place that are designed to prevent security breaches; however, as newer technologies evolve, and the portfolio of the service providers we share confidential information with, or from which we acquire software and/or hardware for our own internal use, expands as our business grows and the complexity of our business overall increases, and as more business activities have shifted online due to the COVID-19 pandemic, we could be exposed to increased risks from breaches in security, including those from human error, negligence or mismanagement or from illegal or fraudulent acts, such as cyberattacks. The evolving nature of threats to data security, in light of new and sophisticated methods used by criminals and cyberterrorists, state-sponsored organizations and nation-states, including computer viruses, malware, phishing, misrepresentation, social engineering and forgery, make it increasingly challenging to anticipate and adequately mitigate these risks.

Breaches in security could expose us, our supply chain, our customers or other individuals to significant disruptions and a risk of public disclosure, loss or misuse of this information. Security breaches could result in legal claims or proceedings, liability or regulatory penalties under laws protecting the privacy of personal information, as well as the loss of existing or potential customers and damage to our brand and reputation. Moreover, media or other reports of perceived vulnerabilities in our network security or perceived lack of security within our environment, even if inaccurate, could materially adversely impact our reputation and business. The cost and operational consequences of implementing further data protection measures could be significant. Such breaches, costs and consequences could adversely affect our business, results of operations or cash flows.

If we or our third-party service providers fail to provide high-quality services to our customers, our reputation, business, results of operations or cash flows could be adversely affected.

Our services include field services, managed services, warranties, configuration services, partner services and telecom services. Additionally, we deliver and manage mission critical software, systems and network solutions for our customers. We also offer certain services, such as implementation and installation services and repair services, to our customers through various third-party service providers engaged to perform these services on our behalf. If we or our third-party service providers fail to provide high-quality services to our customers or such services result in an unplanned disruption of our customers' businesses, this could, among other things, result in legal claims and proceedings and liability for us. Moreover, as we expand our services and solutions business and provide increasingly complex services and solutions, we may be exposed to additional operational, regulatory and other risks. We also could incur liability for failure to comply with the rules and regulations applicable to the new services and solutions we provide to our customers. If any of the foregoing were to occur, our reputation with our customers, our brand and our business, results of operations or cash flows could be adversely affected.

If we lose any of our key personnel, or are unable to attract and retain the talent required for our business, our business could be disrupted and our financial performance could suffer.

Our success is heavily dependent upon our ability to attract, develop, engage and retain key personnel to manage and grow our business, including our key executive, management, sales, services and technical coworkers.

Our future success will depend to a significant extent on the efforts of our Chief Executive Officer, as well as the continued service and support of our other executive officers and the effectiveness of our succession planning. Our future success also will depend on our ability to retain and motivate our customer-facing coworkers, who have been given critical CDW knowledge regarding, and the opportunity to develop strong relationships with, many of our customers. In addition, as we seek to expand our offerings of value-added services and solutions, our success will even more heavily depend on attracting and retaining highly skilled technology specialists and engineers, for whom the market is extremely competitive.

If we are unable to attract, develop, engage and retain key personnel, our relationships with our vendor partners and customers and our ability to expand our offerings of value-added services and solutions could be adversely affected. Moreover, if we are unable to continue to train our sales, services and technical personnel effectively to meet the rapidly changing technology needs of our customers, the overall quality and efficiency of such personnel could decrease. Such consequences could adversely affect our business, results of operations or cash flows.

A natural disaster or other adverse occurrence at one of our primary facilities or a third-party provider location could damage our business.

We have two warehouse and distribution facilities in the US and one in the UK. If the warehouse and distribution equipment or operations at one of our distribution centers were to be seriously damaged or disrupted by a natural disaster or other adverse occurrence, including disruption related to political or social unrest, we could utilize another distribution center or third-party distributors to ship products to our customers. However, this may not be sufficient to avoid interruptions in our service and may not enable us to meet all of the needs of our customers and would cause us to incur incremental operating costs. In addition, we operate numerous facilities which may contain both business-critical data and confidential information of our customers and third parties, such as data center colocation and hosted solution partners, provide services as a component of our services delivery to customers. A natural disaster or other adverse occurrence at any of our major sales offices or third-party provider locations could negatively impact our business, results of operations or cash flows.

Increases in the cost of commercial delivery services or disruptions of those services could materially adversely impact our business.

We generally ship hardware products to our customers by FedEx, United Parcel Service and other commercial delivery services and invoice customers for delivery charges. If we are unable to pass on to our customers future increases in the cost of commercial delivery services (including those that may result from an increase in fuel or personnel costs or a need to use higher cost delivery channels during periods of increased demand), our profitability could be adversely affected. Additionally, strikes, inclement weather, natural disasters or other service interruptions by such shippers or periods of increased demand on delivery services could materially adversely affect our ability to deliver or receive products on a timely basis.

We are exposed to accounts receivable and inventory risks.

We extend credit to our customers for a significant portion of our sales, typically on 30-day payment terms. We are subject to the risk that our customers may not pay for the products they have purchased, or may pay at a slower rate than we have historically experienced, or may seek extended payment terms. This risk is heightened during periods of global or industry-specific economic downturn or uncertainty, during periods of rising interest rates or, in the case of public sector customers, during periods of budget constraints. Significant failures of customers to timely pay all amounts due to us could adversely affect our business, results of operations or cash flows.

We are also exposed to inventory risks as a result of the rapid technological changes that affect the market and pricing for the products we sell. We seek to minimize our inventory exposure through a variety of inventory management procedures and policies, including our rapid-turn inventory model, as well as vendor price protection and product return programs. However, if we were unable to maintain our rapid-turn inventory model, if there were unforeseen product developments that created more rapid obsolescence or if our vendor partners were to change their terms and conditions, our inventory risks could increase. We also from time to time take advantage of cost savings associated with certain opportunistic bulk inventory purchases offered by our vendor partners or we may decide to carry high inventory levels of certain products that have limited or no return privileges due to customer demand or request or to manage supply chain interruptions. If we purchase inventory in anticipation of customer demand that does not materialize, or if customers reduce or delay orders, and if we were unable to return the inventory to a vendor partner, we would be exposed to an increased risk of inventory obsolescence.

We could be exposed to additional risks if we continue to make strategic investments or acquisitions or enter into alliances.

We may continue to pursue transactions, including strategic investments, acquisitions or alliances, in an effort to extend or complement our existing business. These types of transactions involve numerous business risks, including finding suitable transaction partners and negotiating terms that are acceptable to us, the diversion of management's attention from other business concerns, extending our product or service offerings into areas in which we have limited experience, entering into new geographic markets, the potential loss of key coworkers or business relationships and successfully integrating acquired businesses. There can be no assurance that the intended benefits of our investments, acquisitions and alliances will be realized, or that those benefits will offset these numerous risks or other unforeseen factors, any of which could adversely affect our business, results of operations or cash flows.

In addition, our financial results could be adversely affected by financial adjustments required by generally accepted accounting principles in the United States of America ("US GAAP") in connection with these types of transactions where significant goodwill or intangible assets are recorded. To the extent the value of goodwill or identifiable intangible assets becomes impaired, we may be required to incur material charges relating to the impairment of those assets.

Our future operating results may fluctuate significantly, which may result in volatility in the market price of our stock and could impact our ability to operate our business effectively.

We may experience significant variations in our future quarterly results of operations. These fluctuations may cause the market price of our common stock to be volatile and may result from many factors, including the condition of the technology industry in general, shifts in demand and pricing for hardware, software and services and the introduction of new products or upgrades. Further, if our customers' businesses are adversely affected by the impact of COVID-19, they might delay or reduce purchases from us, which could adversely affect our results of operations.

Our operating results are also highly dependent on our level of Gross profit as a percentage of Net sales. Our Gross profit percentage fluctuates due to numerous factors, some of which may be outside of our control, including general macroeconomic conditions; pricing pressures; changes in product costs from our vendor partners; the availability of price protection, purchase discounts and incentive programs from our vendor partners; changes in product, order size and customer mix; the risk of some items in our inventory becoming obsolete; increases in delivery costs that we cannot pass on to customers; and general market and competitive conditions.

In addition, our cost structure is based, in part, on anticipated sales and gross margins. Therefore, we may not be able to adjust our cost structure quickly enough to compensate for any unexpected sales or gross margin shortfall, and any such inability could have an adverse effect on our business, results of operations or cash flows.

Fluctuations in foreign currency have an effect on our reported results of operations.

Our exposure to fluctuations in foreign currency rates results primarily from the translation exposure associated with the preparation of our Consolidated Financial Statements. While our Consolidated Financial Statements are reported in US dollars, the financial statements of our subsidiaries outside the US are prepared using the local currency as the functional currency and translated into US dollars. As a result, fluctuations in the exchange rate of the US dollar relative to the local currencies of our international subsidiaries, particularly the British pound and the Canadian dollar, could cause material fluctuations in our reported results of operations. We also have foreign currency exposure to the extent sales and purchases are not denominated in a subsidiary's functional currency, which could have an adverse effect on our business, results of operations or cash flows.

Macroeconomic and Industry Risks

Global and regional economic and political conditions may have an adverse impact on our business.

Weak economic conditions generally, sustained uncertainty about global economic and political conditions, government spending cuts and the impact of new government policies (including the introduction of new or increased taxes), or a tightening of credit markets, including as a result of the COVID-19 pandemic, could cause our customers and potential customers to postpone or reduce spending on technology products or services or put downward pressure on prices, which could have an adverse effect on our business, results of operations or cash flows. For example, there continues to be uncertainty regarding the economic and other impacts of the UK's phased exit from the European Union ("EU") in 2020, referred to as "Brexit". An agreement was reached between the UK and the EU in relation to their future relationship in certain areas, which included a new trade and cooperation agreement relating principally to the free trade in goods (the "EU-UK Trade and Cooperation Agreement"). While the EU-UK Trade and Cooperation Agreement provides clarity in respect of the free trade in goods between the UK and the EU, there remain uncertainties related to the stability and effects of the new relationship. Potential adverse consequences of Brexit and the uncertainties around EU-UK Trade and Cooperation Agreement include global market uncertainty, volatility in currency exchange rates, additional costs and operational burdens associated with increased operational restrictions on imports and exports between the UK and other countries and potentially increased regulatory complexities, each of which could have a negative impact on our business, financial condition or results of operations. We have established a presence in the Netherlands to help address future developments, as needed, for Brexit, which could add complexity to our European operations as well as result in higher costs associated with serving our customers.

The interruption of the flow of products from suppliers could disrupt our supply chain.

Our business depends on the timely supply of products in order to meet the demands of our customers. Manufacturing interruptions or delays, including as a result of the financial instability or bankruptcy of manufacturers, significant labor disputes such as strikes, natural disasters, political or social unrest, pandemics (such as the COVID-19 pandemic) or other public health crises, or other adverse occurrences affecting any of our suppliers' facilities, could disrupt our supply chain. We could experience product constraints due to the failure of suppliers to accurately forecast customer demand, or to manufacture sufficient quantities of product to meet customer demand (including as a result of shortages of product components), among other reasons. Additionally, the relocation of key distributors utilized in our purchasing model could increase our need for, and the cost of, working capital and have an adverse effect on our business, results of operations or cash flows.

Our supply chain is also exposed to risks related to international operations. While we purchase our products primarily in the markets we serve (for example, products for US customers are sourced in the US), our vendor partners manufacture or purchase a significant portion of the products we sell outside of the US, primarily in Asia. Political, social or economic instability in Asia, or in other regions in which our vendor partners purchase or manufacture the products we sell, could cause disruptions in trade, including exports to the US. Other events related to international operations that could cause disruptions to our supply chain include:

- the imposition of additional trade law provisions or regulations, including the adoption or expansion of trade restrictions;
- the imposition of additional duties, tariffs and other charges on imports and exports, including any resulting retaliatory tariffs or charges and any reductions in the production of products subject to such tariffs and charges;
- foreign currency fluctuations; and
- restrictions on the transfer of funds.

We cannot predict whether the countries in which the products we sell, or any components of those products, are purchased or manufactured will be subject to new or additional trade restrictions or sanctions imposed by the US or foreign governments, including the likelihood, type or effect of any such restrictions. Trade restrictions, including new or increased tariffs or quotas, embargoes, sanctions, safeguards and customs restrictions against the products we sell, could increase the cost or reduce the supply of product available to us and adversely affect our business, results of operations or cash flows. In addition, our exports are subject to regulations, some of which may be inconsistent, and noncompliance with these requirements could have a negative effect on our business, results of operations or cash flows.

Our financial performance could be adversely affected by decreases in spending on technology products and services by our public sector customers.

Our sales to our public sector customers and our other customers that do business with our public sector customers are impacted by government spending policies, budget priorities and revenue levels. An adverse change in government spending policies (such as budget cuts or limitations or temporary shutdowns of government operations), shifts in budget priorities or reductions in revenue levels, could cause our impacted public sector customers or our other customers that do business with impacted public sector customers to reduce or delay their purchases or to terminate or not renew their contracts with us, which could adversely affect our business, results of operations or cash flows. Additionally, such adverse change in government spending policies, shifts in budget priorities or reductions in revenue levels could impact cash collections from contracts with our impacted public sector customers or other customers that do business with impacted public sector customers, which could adversely affect our business, results of operations or cash flows.

Legal and Regulatory Risks

The failure to comply with our public sector contracts or applicable laws and regulations could result in, among other things, termination, fines or other liabilities, and changes in procurement regulations could adversely impact our business, results of operations or cash flows.

Revenues from our public sector customers are derived from sales to governmental entities, educational institutions and healthcare customers through various contracts and open market sales of products and services. Sales to public sector customers are highly regulated. Noncompliance with contract provisions, government procurement regulations or other applicable laws or regulations (including the False Claims Act, the Medicare and Medicaid Anti-Kickback Statute or similar laws of the jurisdictions for our business activities outside of the US) or security clearance and confidentiality requirements could result in civil, criminal and administrative liability, including substantial monetary fines or damages, termination of government contracts or other public sector customer contracts, and suspension, debarment or ineligibility from doing business with governmental entities or other customers in the public sector. In addition, contracts in the public sector are generally terminable at any time for convenience of the contracting agency or group purchasing organization ("GPO") or upon default. Furthermore, our inability to enter into or retain contracts with GPOs may threaten our ability to sell to customers in those GPOs and compete effectively. The effect of any of these possible actions or failures could adversely affect our business, results of operations or cash flows. In addition, the adoption of new or modified procurement regulations and other requirements may increase our compliance costs and reduce our gross margins, which could have a negative effect on our business, results of operations or cash flows.

We are exposed to risks from legal proceedings and audits, which may result in substantial costs and expenses or interruption of our normal business operations.

We are party to various legal proceedings that arise in the ordinary course of our business, which include commercial, employment, tort and other litigation.

We are subject to intellectual property infringement claims against us in the ordinary course of our business, either because of the products and services we sell or the business systems and processes we use to sell such products and services, in the form of cease-and-desist letters, licensing inquiries, lawsuits and other communications and demands. In our industry, such intellectual property claims have become more frequent as the complexity of technological products and the intensity of competition in our industry have increased. Increasingly, many of these assertions are brought by non-practicing entities whose principal business model is to secure patent licensing revenue, but we may also be subject to demands from inventors, competitors or other patent holders who may seek licensing revenue, lost profits and/or an injunction preventing us from engaging in certain activities, including selling certain products or services.

We also are subject to proceedings, investigations and audits by federal, state, international, national, provincial and local authorities, including as a result of our significant sales to governmental entities. We also are subject to audits by various vendor partners and large customers, including government agencies, relating to purchases and sales under various programs and contracts. In addition, we are subject to indemnification claims under various contracts.

Current and future litigation, infringement claims, governmental proceedings and investigations, audits or indemnification claims that we face may result in substantial costs and expenses and significantly divert the attention of our management regardless of the outcome. In addition, these matters could lead to increased costs or interruptions of our normal business operations. Litigation, infringement claims, governmental proceedings and investigations, audits or indemnification claims involve uncertainties and the eventual outcome of any such matter could adversely affect our business, results of operations or cash flows.

Failure to comply with complex and evolving laws and regulations applicable to our operations could adversely impact our business, results of operations or cash flows.

In light of the global nature of our business, our operations are subject to numerous complex federal, state, provincial, local and foreign laws and regulations in a number of areas, including labor and employment, advertising, e-commerce, tax, trade, import and export requirements, economic and trade sanctions, anti-corruption, data privacy requirements (including those under the European Union General Data Protection Regulation and the California Consumer Privacy Act), anti-competition, environmental and health and safety. The evaluation of, and compliance with these laws, regulations and similar requirements may be onerous and expensive, and these laws and regulations may have other adverse impacts on our business, results of operations or cash flows. Furthermore, these laws and regulations are evolving and may be inconsistent from jurisdiction to jurisdiction, further increasing the cost of compliance and doing business, and the risk of noncompliance.

We have implemented policies and procedures designed to help ensure compliance with applicable laws and regulations, but there can be no guarantee against coworkers, contractors or agents violating such laws and regulations or our policies and procedures.

As a public company, we also are subject to increasingly complex public disclosure, corporate governance and accounting requirements that increase compliance costs and require significant management focus.

Risks Related to Our Indebtedness

Our level of indebtedness could adversely affect our business.

As of December 31, 2020, we had $3.9 billion of total long-term debt outstanding and $525 million of obligations outstanding under our inventory financing agreements, and the ability to borrow an additional $1.0 billion under our senior secured asset-based revolving credit loan facility (the "Revolving Loan") after taking into account borrowing base limitations and an additional £50 million ($68 million) under our CDW UK revolving credit facility. Our level of indebtedness could have important consequences, including the following:

- making it more difficult for us to satisfy our obligations with respect to our indebtedness;
- requiring us to dedicate a substantial portion of our cash flow from operations to debt service payments on our and our subsidiaries' debt, which reduces the funds available for working capital, capital expenditures, acquisitions and other general corporate purposes;
- requiring us to comply with restrictive covenants in our senior credit facilities and indentures, which limit the manner in which we conduct our business;
- making it more difficult for us to obtain vendor financing from our vendor partners, including original equipment manufacturers and software publishers;
- limiting our flexibility in planning for, or reacting to, changes in the industry in which we operate;
- placing us at a competitive disadvantage compared to any of our less-leveraged competitors;
- increasing our vulnerability to both general and industry-specific adverse economic conditions; and
- limiting our ability to obtain additional debt or equity financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements and increasing our cost of borrowing.

Restrictive covenants under our senior credit facilities and, to a lesser degree, our indentures may adversely affect our operations and liquidity.

Our senior credit facilities and, to a lesser degree, our indentures contain, and any future indebtedness of ours may contain, various covenants that limit our ability to, among other things:

- incur or guarantee additional debt;
- pay dividends or make distributions to holders of our capital stock or to make certain other restricted payments or investments;
- repurchase or redeem capital stock;
- make loans, capital expenditures or investments or acquisitions;

- receive dividends or other payments from our subsidiaries;
- enter into transactions with affiliates;
- pledge our assets as collateral;
- merge or consolidate with other companies or transfer all or substantially all of our assets;
- transfer or sell assets, including capital stock of subsidiaries; and
- prepay, repurchase or redeem debt.

As a result of these covenants, we are limited in the manner in which we conduct our business and we may be unable to engage in favorable business activities or finance future operations or capital needs. A breach of any of these covenants or any of the other restrictive covenants would result in a default under our senior credit facilities. Upon the occurrence of an event of default under our senior credit facilities, the lenders:

- will not be required to lend any additional amounts to us;
- could elect to declare all borrowings outstanding thereunder, together with accrued and unpaid interest and fees, to be due and payable; or
- could require us to apply all of our available cash to repay these borrowings.

The acceleration of amounts outstanding under our senior credit facilities would likely trigger an event of default under our existing indentures.

If we were unable to repay those amounts, the lenders under our senior credit facilities could proceed against the collateral granted to them to secure our borrowings thereunder. We have pledged a significant portion of our assets as collateral under our senior credit facilities. If the lenders under our senior credit facilities accelerate the repayment of borrowings, we cannot assure you that we will have sufficient assets to repay our senior credit facilities and our other indebtedness or the ability to borrow sufficient funds to refinance such indebtedness. Even if we were able to obtain new financing, it may not be on commercially reasonable terms, or terms that are acceptable to us.

In addition, under our Revolving Loan, we are permitted to borrow an aggregate amount of up to $1.5 billion. However, our ability to borrow under our Revolving Loan is limited by a borrowing base and a liquidity condition. The borrowing base at any time equals the sum of up to 85% of CDW LLC and its subsidiary guarantors' eligible accounts receivable (net of accounts receivable reserves) (up to 30% of such eligible accounts receivable which can consist of federal government accounts receivable) plus the lesser of (i) 75% of CDW LLC and its subsidiary guarantors' eligible inventory (valued at cost and net of inventory reserves) and (ii) the product of 85% multiplied by the net orderly liquidation value percentage multiplied by eligible inventory (valued at cost and net of inventory reserves), less reserves (other than accounts reserves and inventory reserves). The borrowing base in effect as of December 31, 2020 was $2.2 billion and, therefore, did not restrict our ability to borrow under our Revolving Loan as of that date.

Our ability to borrow under our Revolving Loan is also limited by a minimum liquidity condition, which provides that, if excess cash availability is less than the lesser of (i) $125 million and (ii) the greater of (A) 10% of the borrowing base and (B) $100 million, the lenders are not required to lend any additional amounts under our Revolving Loan unless the consolidated fixed charge coverage ratio (as defined in the credit agreement for our Revolving Loan) is at least 1.00 to 1.00. It is an event of default under our Revolving Loan if our excess cash availability and consolidated fixed charge coverage ratio remain below such levels for a period of five or more consecutive business days. Moreover, our Revolving Loan provides discretion to the agent bank acting on behalf of the lenders to impose additional availability reserves, which could materially impair the amount of borrowings that would otherwise be available to us. We cannot make any assurances that the agent bank will not impose such reserves or, were it to do so, that the resulting impact of this action would not materially and adversely impair our liquidity.

We will be required to generate sufficient cash to service our indebtedness and, if not successful, we may be forced to take other actions to satisfy our obligations under our indebtedness.

Our ability to make scheduled payments on or to refinance our debt obligations depends on our financial and operating performance, which is subject to prevailing economic and competitive conditions and to certain financial, business and other factors beyond our control. Our outstanding long-term debt will impose significant cash interest payment obligations on us and, accordingly, we will have to generate significant cash flow from operating activities to fund our debt service obligations. We cannot assure you that we will maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness. See "Management's Discussion and Analysis of Financial Condition and Results of Operations-Liquidity and Capital Resources" included elsewhere in this report.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets or operations, seek additional debt or equity capital, restructure or refinance our indebtedness, or revise or delay our strategic plan. We cannot assure you that we would be able to take any of these actions on terms that are favorable to us or at all, that these actions would be successful and permit us to meet our scheduled debt service obligations or satisfy our capital requirements, or that these actions would be permitted under the terms of our existing or future debt agreements, including our senior credit facilities and indentures. In the absence of such operating results and resources, we could face substantial liquidity problems and might be required to dispose of material assets or operations to meet our debt service and other obligations. Our senior credit facilities restrict our ability to dispose of assets and use the proceeds from the disposition. We may not be able to consummate those dispositions or to obtain the proceeds which we could realize from them and these proceeds may not be adequate to meet any debt service obligations then due.

If we cannot make scheduled payments on our debt, we will be in default and, as a result:

- our debt holders could declare all outstanding principal and interest to be due and payable;
- the lenders under our senior credit facilities could foreclose against the assets securing the borrowings from them and the lenders under our Revolving Loan and CDW UK revolving credit facility could terminate their commitments to lend us money; and
- we could be forced into bankruptcy or liquidation.

We and our subsidiaries may be able to incur substantially more debt, including secured debt. This could further increase the risks associated with our leverage.

We and our subsidiaries may be able to incur substantial additional indebtedness in the future. The terms of our senior credit facilities and indentures do not fully prohibit us or our subsidiaries from doing so. To the extent that we incur additional indebtedness, the risks associated with our level of indebtedness described above, including our possible inability to service our debt, will increase. As of December 31, 2020, we had $1.0 billion available for additional borrowing under our Revolving Loan after taking into account borrowing base limitations and an additional £50 million ($68 million) available under our CDW UK revolving credit facility.

Variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

Certain of our borrowings, primarily borrowings under our senior credit facilities, are at variable rates of interest and expose us to interest rate risk. As of December 31, 2020, we had $1.5 billion of variable rate debt outstanding. If interest rates increase, our debt service obligations on the variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income would decrease. Although we have entered into interest rate cap agreements on our term loan facility to reduce interest rate volatility, we cannot assure you we will be able to enter into interest rate cap agreements in the future on acceptable terms or that such caps or the caps we have in place now will be effective.

The London Inter-bank Offered Rate ("LIBOR") and certain other interest "benchmarks" may be subject to regulatory guidance and/or reform that could cause interest rates under our current or future debt agreements to perform differently than in the past or cause other unanticipated consequences.

Certain of our credit facilities, including our senior secured term loan facility and our Revolving Loan, have variable interest rates using LIBOR as a benchmark rate, and we have entered into interest rate cap agreements with respect to the senior secured term loan facility that are based on LIBOR. As of December 31, 2020, $1.5 billion of our total debt outstanding bears interest at variable interest rates using LIBOR as a benchmark rate. The LIBOR and certain other interest "benchmarks" may be subject to regulatory guidance and/or reform that could cause interest rates under our current or future debt agreements to perform differently than in the past or cause other unanticipated consequences. The United Kingdom's Financial Conduct Authority, which regulates the LIBOR administrator, previously announced that it intends to stop encouraging or requiring banks to submit LIBOR rates after 2021. However, for US dollar LIBOR, it now appears that the relevant date may be deferred to June 30, 2023 for the most common tenors (overnight and one, three, six and 12 months). As to those tenors, the LIBOR administrator has published a consultation regarding its intention to cease publication of US dollar LIBOR as of June 30, 2023 (instead of December 31, 2021, as previously expected). Moreover, the LIBOR administrator's consultation also relates to the LIBOR administrator's intention to cease publication of non-US dollar LIBOR after 2021. Although the foregoing may provide some sense of timing, there is no assurance that LIBOR, of any particular currency or tenor, will continue to be published until any particular date. Additionally, the US Federal Reserve, in conjunction with the Alternative Reference Rates Committee, a steering committee comprised of large US financial institutions, announced the replacement of US dollar LIBOR with a new index calculated by short-term repurchase agreements, backed by US Treasury securities, called the Secured Overnight Financing Rate ("SOFR"). Whether or not SOFR attains market traction as a LIBOR replacement for US dollar-denominated instruments, and whether other benchmarks will attain traction in other markets, remains in question and the future of LIBOR at this time is uncertain. If LIBOR ceases to exist, interest rates on our current or future debt obligations and hedging instruments may be adversely affected and we may need to renegotiate the agreements governing such obligations or instruments. Although the agreement governing our senior secured term loan facility contains provisions for amending the applicable term loan interest rates if LIBOR is discontinued or cannot be determined, any such amendments will be contingent on our ability to negotiate new "benchmark" rates, spreads and calculation methods with the administrative agent and lenders under such facility. We may be unable to negotiate an acceptable alternative to LIBOR, or if we do agree to amend the facility, the new "benchmark" may perform differently than LIBOR or cause other unanticipated consequences, which could adversely affect our interest expense, related debt obligations and our interest rate cap agreements.

Risks Related to Ownership of Our Common Stock

Our common stock price may be volatile and may decline regardless of our operating performance, and holders of our common stock could lose a significant portion of their investment.

The market price for our common stock may be volatile. Our stockholders may not be able to resell their shares of common stock at or above the price at which they purchased such shares, due to fluctuations in the market price of our common stock, which may be caused by a number of factors, many of which we cannot control, including the risk factors described in this Annual Report on Form 10-K and the following:

- changes in financial estimates by any securities analysts who follow our common stock, our failure to meet these estimates or failure of securities analysts to maintain coverage of our common stock;
- downgrades by any securities analysts who follow our common stock;
- future sales of our common stock by our officers, directors and significant stockholders;
- market conditions or trends in our industry or the economy as a whole;
- investors' perceptions of our prospects;
- announcements by us or our competitors of significant contracts, acquisitions, joint ventures or capital commitments; and
- changes in key personnel.

In addition, the stock markets have experienced extreme price and volume fluctuations that have affected and continue to affect the market prices of equity securities of many companies, including companies in our industry. In the past, securities class action litigation has followed periods of market volatility. If we were involved in securities litigation, we could incur substantial costs, and our resources and the attention of management could be diverted from our business.

In the future, we may also issue our securities in connection with investments or acquisitions. The number of shares of our common stock issued in connection with an investment or acquisition could constitute a material portion of our then-outstanding shares of our common stock and depress our stock price.

Anti-takeover provisions in our charter documents and Delaware law might discourage or delay acquisition attempts for us that may be considered favorable.

Our amended and restated certificate of incorporation and amended and restated bylaws contain provisions that may make the acquisition of the Company more difficult without the approval of our Board of Directors. These provisions:

- authorize the issuance of undesignated preferred stock, the terms of which may be established and the shares of which may be issued without stockholder approval, and which may include super voting, special approval, dividend, or other rights or preferences superior to the rights of the holders of common stock;
- generally prohibit stockholder action by written consent, requiring all stockholder actions be taken at a meeting of our stockholders;

- provide that special meetings of the stockholders can only be called by or at the direction of our Board of Directors pursuant to a written resolution adopted by the affirmative vote of the majority of the total number of directors that the Company would have if there were no vacancies;
- establish advance notice requirements for nominations for elections to our Board of Directors or for proposing matters that can be acted upon by stockholders at stockholder meetings; and
- provide that our Board of Directors is expressly authorized to make, alter or repeal our amended and restated bylaws.

Our amended and restated certificate of incorporation also contains a provision that provides us with protections similar to Section 203 of the Delaware General Corporation Law, and will prevent us from engaging in a business combination with a person who acquires at least 15% of our common stock for a period of three years from the date such person acquired such common stock, unless Board or stockholder approval is obtained prior to the acquisition. These anti-takeover provisions and other provisions under Delaware law could discourage, delay or prevent a transaction involving a change in control of the Company, even if doing so would benefit our stockholders. These provisions could also discourage proxy contests and make it more difficult for our stockholders to elect directors of their choosing and to cause us to take other corporate actions our stockholders desire.

We cannot assure you that we will continue to pay dividends on our common stock or repurchase any of our common stock under our share repurchase program, and our indebtedness and certain tax considerations could limit our ability to continue to pay dividends on, or make share repurchases of, our common stock. If we do not continue to pay dividends, you may not receive any return on investment unless you are able to sell your common stock for a price greater than your purchase price.

We expect to continue to pay a cash dividend on our common stock. However, any determination to pay dividends in the future will be at the discretion of our Board of Directors. Any determination to pay dividends on, or repurchase, shares of our common stock in the future will depend upon our results of operations, financial condition, business prospects, capital requirements, contractual restrictions, any potential indebtedness we may incur, restrictions imposed by applicable law, tax considerations and other factors our Board of Directors deems relevant. In addition, our ability to pay dividends on, or repurchase, shares of our common stock will be limited by restrictions on our ability to pay dividends or make distributions to our stockholders and on the ability of our subsidiaries to pay dividends or make distributions to us, in each case, under the terms of our current and any future agreements governing our indebtedness. There can be no assurance that we will continue to pay a dividend at the current rate or at all or that we will continue to repurchase shares of our common stock. If we do not pay dividends in the future, realization of a gain on your investment will depend entirely on the appreciation of the price of our common stock, which may never occur.

We are a holding company and rely on dividends, distributions and other payments, advances and transfers of funds from our subsidiaries to meet our obligations.

We are a holding company that does not conduct any business operations of our own. As a result, we are largely dependent upon cash dividends and distributions and other transfers from our subsidiaries to meet our obligations. The agreements governing the indebtedness of our subsidiaries impose restrictions on our subsidiaries' ability to pay dividends or other distributions to us. The deterioration of the earnings from, or other available assets of, our subsidiaries for any reason could also limit or impair their ability to pay dividends or other distributions to us.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2020, we owned or leased a total of 2.5 million square feet of space, primarily in the US, UK and Canada. We own two properties: a 513,000 square foot distribution center in North Las Vegas, Nevada, and a combined office and a 442,000 square foot distribution center in Vernon Hills, Illinois. In addition, we conduct sales, services and administrative activities in various locations primarily in the US, UK and Canada.

We believe our facilities are well maintained, suitable for our business and occupy sufficient space to meet our operating needs. As part of our normal business, we regularly evaluate sales center performance and site suitability. Leases covering our currently occupied leased properties expire at varying dates, generally within the next 16 years.

We anticipate no difficulty in retaining occupancy through lease renewals, month-to-month occupancy or replacing the leased properties with equivalent properties. We believe that suitable additional or substitute leased properties will be available as required.

Item 3. Legal Proceedings

We are party to various legal proceedings that arise in the ordinary course of our business, which include commercial, intellectual property, employment, tort and other litigation matters. We are also subject to audit by federal, state, international, national, provincial and local authorities, and by various partners, group purchasing organizations and customers, including government agencies, relating to purchases and sales under various contracts. In addition, we are subject to indemnification claims under various contracts. From time to time, certain of our customers file voluntary petitions for reorganization or liquidation under the US bankruptcy laws or similar laws of the jurisdictions for our business activities outside of the US. In such cases, certain pre-petition payments received by us could be considered preference items and subject to return to the bankruptcy administrator.

As of December 31, 2020, we do not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these proceedings and matters, if any, has been incurred. However, the ultimate resolutions of these proceedings and matters are inherently unpredictable. As such, our financial condition and results of operations could be adversely affected in any particular period by the unfavorable resolution of one or more of these proceedings or matters.

Item 4. Mine Safety Disclosures

Not applicable.

Information about our Executive Officers

The following table lists the name, age as of February 26, 2021 and positions of each executive officer of the Company.

Name	Age	Position
Christine A. Leahy	56	President and Chief Executive Officer and member of our Board of Directors since January 2019; Chief Revenue Officer from July 2017 to December 2018; Senior Vice President - International, Chief Legal Officer, and Corporate Secretary from May 2016 to July 2017; Senior Vice President, General Counsel and Corporate Secretary from January 2007 to May 2016.
Sona Chawla	53	Chief Growth and Innovation Officer since January 2020; President, Kohl's Corporation (an omnichannel retailer) from May 2018 to October 2019 and Chief Operating Officer from November 2015 to May 2018.
Elizabeth H. Connelly	56	Chief Human Resources Officer and Senior Vice President, Coworker Services since December 2018; Managing Director and Head, Commercial Bank Healthcare, Higher Education and Not-for-Profit Banking at J.P. Morgan Chase & Company (a global financial services firm) from March 2012 to December 2018.
Christina M. Corley	53	Chief Commercial and Operating Officer since January 2020; Chief Operating Officer from January 2019 to January 2020; Senior Vice President, Commercial and International Markets from July 2017 to December 2018; Senior Vice President, Corporate Sales from September 2011 to July 2017.
Collin B. Kebo	54	Senior Vice President and Chief Financial Officer since January 2018; Vice President, Financial Planning and Analysis from December 2008 to December 2017; Chief Financial Officer - International from May 2016 to December 2017.
Frederick J. Kulevich	55	Senior Vice President, General Counsel and Corporate Secretary since October 2017; Vice President and Deputy General Counsel from May 2016 to October 2017; Vice President and Assistant General Counsel from May 2014 to May 2016; Senior Director, Ethics and Compliance from July 2006 to May 2014.

PART II

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

Market Information

Our common stock has been listed on the Nasdaq Global Select Market since June 27, 2013 under the symbol "CDW."

Holders

As of February 23, 2021, there were 12 holders of record of our common stock. The number of beneficial stockholders is substantially greater than the number of holders of record because a portion of our common stock is held through brokerage firms.

Dividends

On February 10, 2021, we announced that our Board of Directors declared a quarterly cash dividend on our common stock of $0.400 per share. The dividend will be paid on March 10, 2021 to all stockholders of record as of the close of business on February 25, 2021.

We expect to continue to pay quarterly cash dividends on our common stock in the future, but such payments remain at the discretion of our Board of Directors and will depend upon our results of operations, financial condition, business prospects, capital requirements, contractual restrictions, any potential indebtedness we may incur, restrictions imposed by applicable law, tax considerations and other factors that our Board of Directors deems relevant. In addition, our ability to pay dividends on our common stock will be limited by restrictions on our ability to pay dividends or make distributions to our stockholders and on the ability of our subsidiaries to pay dividends or make distributions to us, in each case, under the terms of our current and any future agreements governing our indebtedness. For additional information on our cash resources and needs and restrictions on our ability to pay dividends, see "Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources" included elsewhere in this report. For additional information on restrictions on our ability to pay dividends, see Note 10 (Long-Term Debt) to the accompanying Consolidated Financial Statements.

Issuer Purchases of Equity Securities

On February 7, 2019, we announced that our Board of Directors authorized a $1.0 billion increase to our share repurchase program under which we may repurchase shares of our common stock in the open market through privately negotiated or other transactions, depending on share price, market conditions and other factors. On February 10, 2021, we announced that our Board of Directors authorized a $1.25 billion increase to our share repurchase program.

In March 2020, we elected to temporarily suspend share repurchases as a precautionary measure in light of the COVID-19 pandemic. We made no share repurchases during the second and third quarters of 2020. In November 2020, we resumed our share repurchase program.

Information relating to the Company's purchases of its common stock during the quarter ended December 31, 2020 is as follows:

Period	Total Number of Shares Purchased (in millions)	Average Price Paid per Share	Total Number of Shares Purchased as Part of a Publicly Announced Program (in millions)	Maximum Dollar Value of Shares that May Yet be Purchased Under the Program[1] (in millions)
October 1 through October 31, 2020	—	$ —	—	$ 538.0
November 1 through November 30, 2020	0.7	$ 136.13	0.7	$ 446.1
December 1 through December 31, 2020	0.8	$ 131.91	0.8	$ 338.0
Total	1.5		1.5	

(1) The amounts presented in this column are the remaining total authorized value to be spent after each month's repurchases.

Cumulative Total Shareholder Return

The information contained in this Cumulative Total Shareholder Return section shall not be deemed to be "soliciting material" or "filed" or incorporated by reference in future filings with the SEC, or subject to the liabilities of Section 18 of the Securities

Exchange Act of 1934, except to the extent that we specifically incorporate it by reference into a document filed under the Securities Act of 1933 or the Securities Exchange Act of 1934.

The following graph compares the cumulative total shareholder return, calculated on a dividend reinvested basis, on $100.00 invested at the closing of the market on December 31, 2015 through and including the market close on December 31, 2020, with the cumulative total return for the same time period of the same amount invested in the S&P 500 Index and a peer group index. Our peer group index for 2020 consists of the following companies: Arrow Electronics, Inc., Avnet, Inc., CGI Group Inc., Cognizant Technology Solutions Corporation, DXC Technology Company, Genuine Parts Company, Henry Schein, Inc., Insight Enterprises, Inc., LKQ Corporation, Patterson Companies, Inc., SYNNEX Corporation, W.W. Grainger, Inc. and Wesco International, Inc. This peer group was selected based on a review of publicly available information about these companies and our determination that they met one or more of the following criteria: (i) similar size in terms of revenue and/or enterprise value (one-third to three times our revenue or enterprise value); (ii) operates in a business-to-business distribution environment; (iii) members of the technology industry; (iv) similar customers (*i.e.*, business, government, healthcare, and education); (v) companies that provide services and/or solutions; (vi) similar margins; (vii) comparable percentage of international sales; (viii) frequently identified as a peer by the other peer companies or Institutional Shareholder Services Inc.; or (ix) identified by the Company as a competitor.

The cumulative total shareholder returns over the indicated period are based on historical data and should not be considered indicative of future shareholder returns.

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	December 31, 2015	December 31, 2016	December 31, 2017	December 31, 2018	December 31, 2019	December 31, 2020
CDW Corp	$ 100	$ 125	$ 169	$ 199	$ 355	$ 332
S&P 500 Index	$ 100	$ 110	$ 131	$ 123	$ 158	$ 184
CDW Peers	$ 100	$ 124	$ 139	$ 118	$ 145	$ 157

Recent Sales of Unregistered Securities

None.

Item 6. Selected Financial Data

The selected financial data set forth below are not necessarily indicative of the results of future operations and should be read in conjunction with "Management's Discussion and Analysis of Financial Condition and Results of Operations" and our Consolidated Financial Statements and the related notes. Items that materially impact the comparability of the results over the last five years are discussed below the table.

	Year Ended December 31,				
(dollars in millions, except per share amounts)	2020	2019	2018	2017	2016
Statement of Operations Data:					
Net sales	$ 18,467.5	$ 18,032.4	$ 16,240.5	$ 14,832.9	$ 13,672.7
Cost of sales	15,257.4	14,992.5	13,533.6	12,382.7	11,344.4
Gross profit	3,210.1	3,039.9	2,706.9	2,450.2	2,328.3
Selling and administrative expenses	2,030.9	1,906.3	1,719.6	1,583.7	1,508.3
Operating income	1,179.2	1,133.6	987.3	866.5	820.0
Interest expense, net	(154.9)	(159.4)	(148.6)	(150.5)	(146.5)
Other (expense) income, net	(22.0)	(24.5)	1.8	(55.3)	(0.3)
Income before income taxes	1,002.3	949.7	840.5	660.7	673.2
Income tax expense	(213.8)	(212.9)	(197.5)	(137.6)	(248.1)
Net income	$ 788.5	$ 736.8	$643.0	$ 523.1	$ 425.1
Net income per common share:					
Basic	$ 5.53	$ 5.08	$ 4.26	$ 3.37	$ 2.60
Diluted	$ 5.45	$ 4.99	$ 4.19	$ 3.31	$ 2.56
Cash dividends declared per common share	$ 1.5400	$ 1.2650	$ 0.9250	$ 0.6900	$ 0.4825
Balance Sheet Data (at period end):					
Cash and cash equivalents	$ 1,410.2	$ 154.0	$ 205.8	$ 144.2	$ 263.7
Working capital	2,055.2	842.7	993.7	874.2	959.9
Total assets	9,344.7	7,999.4	7,167.7	6,966.7	6,958.4
Total debt and finance lease obligations[(1)(2)]	3,927.2	3,317.3	3,209.1	3,236.7	3,236.6
Total stockholders' equity	1,297.1	960.3	975.2	985.6	1,047.9
Other Financial Data:					
Capital expenditures	$ 158.0	$ 236.3	$ 86.1	$ 81.1	$ 63.5
Gross profit as a percentage of Net sales	17.4 %	16.9 %	16.7 %	16.5 %	17.0 %
Non-GAAP operating income[(3)]	$ 1,404.6	$ 1,368.4	$ 1,216.6	$ 1,106.8	$ 1,048.3
Non-GAAP net income[(4)]	954.4	902.1	794.3	605.9	569.7
Statement of Cash Flows Data:					
Net cash provided by (used in):					
Operating activities	$ 1,314.3	$ 1,027.2	$ 905.9	$ 777.7	$ 604.0
Investing activities	(201.0)	(331.4)	(86.1)	(81.1)	(65.9)
Financing activities	138.8	(749.8)	(754.8)	(818.7)	(304.6)

(1) Excludes borrowings of $525 million, $430 million, $429 million, $498 million and $580 million as of December 31, 2020, 2019, 2018, 2017 and 2016, respectively, under our inventory financing agreements. We do not include these borrowings in total debt because we have not in the past incurred, and in the future do not expect to incur, any interest expense or late fees under these agreements.

(2) On January 1, 2019, the Company adopted ASU 2016-02, Leases (Topic 842), and applied the requirements retrospectively. As such, the lease obligations included in this line are classified as finance leases for the years ended December 31, 2020 and 2019, and as capital leases for the years ended December 31, 2018, 2017 and 2016.

(3) Non-GAAP operating income excludes, among other things, charges related to the amortization of acquisition-related intangible assets, equity-based compensation and the associated payroll taxes, a workforce reduction program, and acquisition and integration expenses. Non-GAAP operating income is considered a non-GAAP financial measure. Generally, a non-GAAP financial measure is a numerical measure of a company's performance or financial position that either excludes or includes amounts that are not normally included or excluded in the most directly comparable measure calculated and presented in accordance with US GAAP. Non-GAAP measures used by management may differ from similar measures used by other companies, even when similar terms are used to identify such measures. We believe Non-GAAP operating income provide analysts, investors and management with helpful information regarding the underlying operating performance of our business, as this measure removes the impact of items that management believes are not reflective of underlying operating performance. Management uses this measure to evaluate period-over-period performance as management believes it provides a more comparable measure of the underlying business.

The following unaudited table sets forth a reconciliation of Operating income to Non-GAAP operating income for the periods presented:

	Year Ended December 31,				
(dollars in millions)	2020	2019	2018	2017	2016
Operating income, as reported	$ 1,179.2	$ 1,133.6	$ 987.3	$ 866.5	$ 820.0
Amortization of intangibles[1]	158.1	178.5	182.7	185.1	187.2
Equity-based compensation	42.5	48.5	40.7	43.7	39.2
Workforce reduction charges	8.5	—	—	—	—
Other adjustments[2]	16.3	7.8	5.9	11.5	1.9
Non-GAAP operating income	$ 1,404.6	$ 1,368.4	$ 1,216.6	$ 1,106.8	$ 1,048.3

(1) Includes amortization expense for acquisition-related intangible assets, primarily customer relationships, customer contracts and trade names.

(2) Includes other expenses such as payroll taxes on equity-based compensation, expenses related to the consolidation of office space and relocation of the downtown Chicago office, settlement of litigation matters, and acquisition and integration expenses.

(4) Non-GAAP net income excludes, among other things, charges related to acquisition-related intangible asset amortization, equity-based compensation, net loss on extinguishment of long-term debt, a workforce reduction program, acquisition and integration expenses, and the associated tax effects of each. Non-GAAP net income is considered a non-GAAP financial measure. Generally, a non-GAAP financial measure is a numerical measure of a company's performance or financial position that either excludes or includes amounts that are not normally included or excluded in the most directly comparable measure calculated and presented in accordance with US GAAP. Non-GAAP measures used by management may differ from similar measures used by other companies, even when similar terms are used to identify such measures. We believe that Non-GAAP net income provides analysts, investors and management with helpful information regarding the underlying operating performance of our business, as this measure removes the impact of items that management believes are not reflective of underlying operating performance. Management uses this measure to evaluate period-over-period performance as management believes it provides a more comparable measure of the underlying business.

The following unaudited table sets forth a reconciliation of Net income to Non-GAAP net income for the periods presented:

(dollars in millions)	Year Ended December 31, 2020	2019	2018	2017	2016
Net income	$ 788.5	$ 736.8	$ 643.0	$ 523.1	$ 425.1
Amortization of intangibles(1)	158.1	178.5	182.7	185.1	187.2
Equity-based compensation	42.5	48.5	40.7	43.7	39.2
Net loss on extinguishments of long-term debt	27.3	22.1	—	57.4	2.1
Workforce reduction charges	8.5	—	—	—	—
Other adjustments(2)	16.3	7.8	5.9	11.5	1.9
Aggregate adjustments for income taxes(3)	(86.8)	(91.6)	(78.0)	(214.9)	(85.8)
Non-GAAP net income	$ 954.4	$ 902.1	$ 794.3	$ 605.9	$ 569.7

(1) Includes amortization expense for acquisition-related intangible assets, primarily customer relationships, customer contracts and trade names.

(2) Includes other expenses such as payroll taxes on equity-based compensation, expenses related to the consolidation of office space and relocation of the downtown Chicago office, consolidation of office space, settlement of litigation matters, the favorable resolution of a local sales tax matter, and acquisition and integration expenses.

(3) Aggregate adjustments for income taxes consists of the following:

(dollars in millions)	Year Ended December 31, 2020	2019	2018	2017	2016
Total Non-GAAP adjustments	$ 252.7	$ 256.9	$ 229.3	$ 297.7	$ 230.4
Weighted-average statutory effective rate	25.0 %	25.0 %	25.0 %	36.0 %	36.0 %
Income tax	(63.2)	(64.2)	(57.3)	(107.2)	(82.9)
Deferred tax adjustment due to law changes	2.7	0.3	0.5	1.3	(1.5)
Excess tax benefits from equity-based compensation	(26.3)	(24.5)	(19.1)	(36.2)	(1.8)
Discrete tax benefit related to CDW Canada's acquisition of Scalar	—	(3.0)	—	—	—
Tax Cuts and Jobs Act	—	—	(1.9)	(75.5)	—
Non-deductible adjustments and other	—	(0.2)	(0.2)	2.7	0.4
Total aggregate adjustments for income taxes	$ (86.8)	$ (91.6)	$ (78.0)	$ (214.9)	$ (85.8)

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

Unless otherwise indicated or the context otherwise requires, as used in this "Management's Discussion and Analysis of Financial Condition and Results of Operations," the terms "we," "us," "the Company," "our," "CDW" and similar terms refer to CDW Corporation and its subsidiaries. "Management's Discussion and Analysis of Financial Condition and Results of Operations" should be read in conjunction with the Consolidated Financial Statements and the related notes included elsewhere in this report. This discussion contains forward-looking statements that are subject to numerous risks and uncertainties. Actual results may differ materially from those contained in any forward-looking statements. See "Forward-Looking Statements" above.

Overview

CDW Corporation, a Fortune 500 company and member of the S&P 500 Index, is a leading multi-brand provider of information technology ("IT") solutions to small, medium and large business, government, education and healthcare customers in the US, the UK and Canada. Our broad array of offerings ranges from discrete hardware and software products to integrated IT solutions and services that include on-premise, hybrid and cloud capabilities across data center and networking, digital workspace, security and virtualization.

We are vendor, technology, and consumption model "agnostic", with a solutions portfolio including more than 100,000 products and services from more than 1,000 leading and emerging brands. Our solutions are delivered in physical, virtual and cloud-based environments through approximately 7,000 customer-facing coworkers, including sellers, highly-skilled technology specialists and advanced service delivery engineers. We are a leading sales channel partner for many original equipment manufacturers ("OEMs"), software publishers and cloud providers (collectively, our "vendor partners"), whose products we sell or include in the solutions we offer. We provide our vendor partners with a cost-effective way to reach customers and deliver a consistent brand experience through our established end-market coverage, technical expertise and extensive customer access.

We have three reportable segments, Corporate, Small Business and Public. Our Corporate segment primarily serves US private sector business customers with more than 250 employees. Our Small Business segment primarily serves US private sector business customers with up to 250 employees. Our Public segment is comprised of government agencies and education and healthcare institutions in the US. We also have two other operating segments: CDW UK and CDW Canada, each of which do not meet the reportable segment quantitative thresholds and, accordingly, are included in an all other category ("Other").

We may sell all or only select products that our vendor partners offer. Each vendor partner agreement provides for specific terms and conditions, which may include one or more of the following: product return privileges, price protection policies, purchase discounts and vendor incentive programs, such as purchase or sales rebates and cooperative advertising reimbursements. We also resell software for major software publishers. Our agreements with software publishers allow the end-user customer to acquire software or licensed products and services. In addition to helping our customers determine the best software solutions for their needs, we help them manage their software agreements, including warranties and renewals. A significant portion of our advertising and marketing expenses are reimbursed through cooperative advertising programs with our vendor partners. These programs are at the discretion of our vendor partners and are typically tied to sales or other commitments to be met by us within a specified period of time.

For a discussion of results for the year ended December 31, 2019, see "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the year ended December 31, 2019, filed with the Securities and Exchange Commission on February 28, 2020.

Trends and Key Factors Affecting our Financial Performance

We believe the following key factors may have a meaningful impact on our business performance, influencing our ability to generate sales and achieve our targeted financial and operating results:

- General economic conditions are a key factor affecting our results as they impact our customers' willingness to spend on information technology. This is particularly the case for our Corporate and Small Business customers, as their purchases tend to reflect confidence in their business prospects, which are driven by their discrete perceptions of business and general economic conditions. Additionally, changes in trade policy and product constraints from suppliers could have an adverse impact on our business.

- The global spread of the novel coronavirus ("COVID-19") pandemic continues to create significant macroeconomic uncertainty, volatility and disruption. The extent to which the COVID-19 pandemic continues to impact our business, results of operations, cash flows, financial condition and liquidity will depend on future developments, which are highly uncertain and cannot be predicted, including, but not limited to, the duration, severity and further spread of the outbreak, future resurgences and reimplementation of closures, the availability, efficacy and acceptance of a vaccine, and the actions taken to contain the virus, and the effectiveness of these actions and how quickly and to what extent normal economic and operating conditions can resume and be sustained. We have mobilized our resources to help ensure the well-being and safety of our coworkers, business continuity, a strong capital position and adequate liquidity. Our efforts have included:

  - Continued focus on the well-being and safety of our coworkers, leveraging standing crisis management protocols and following guidelines from public health authorities and state and local governments. During 2020, we implemented precautions to help keep our coworkers healthy and safe, including activating a cross-functional response team led by senior leadership, moving to remote work for our office coworkers, and implementing safety protocols at our distribution centers, including social distancing measures, segmented shifts, additional personal protective equipment, enhanced facility cleanings, and temperature screening for anyone entering the facilities. All distribution and configuration centers are considered essential businesses and continue to be operational. Our office coworkers continue to work remotely.

  - Remote enablement, operations continuity, and security are customer focus areas to manage remote environments at scale and to prepare to be remote longer. Customers are focused on initiatives to reduce costs, optimize resources, and leverage technology for better customer and employee experiences through digital transformation. We have orchestrated solutions by leveraging client devices, accessories, collaboration tools, security, software and hybrid and cloud offerings to help customers build these capabilities and achieve their objectives.

  - Increasing our provision for credit losses during the year ended December 31, 2020 as a result of the expected economic impact of the COVID-19 pandemic. We continue to monitor cash collections and credit limits of our customers to manage the risk of uncollectible receivables.

  - Closely monitoring our cost structure and liquidity position relative to the overall demand environment. We took measures to enhance liquidity, including completing a $600 million senior notes issuance in April 2020, leveraging the lower interest rate environment by refinancing one of our higher interest rate senior notes in August 2020, implementing cost savings initiatives and suspending temporarily share repurchases from March 2020 through October 2020.

- Changes in spending policies, budget priorities and funding levels are a key factor influencing the purchasing levels of Government, Healthcare and Education customers. Given the COVID-19 pandemic, Education customers have prioritized their budgets towards IT spending while Healthcare customer budgets have been pressured. As the duration and ongoing economic impacts of the COVID-19 pandemic remain uncertain, current and future budget priorities and funding levels for Government, Healthcare and Education customers may be adversely affected.

- Technology trends drive customer purchasing behaviors in the market. Current technology trends are focused on delivering greater flexibility and efficiency, as well as designing IT securely. These trends are driving customer adoption of solutions such as those delivered via cloud, software defined architectures and hybrid on-premise and off-premise combinations, as well as the evolution of the IT consumption model to more "as a service" offerings, including Device as a Service and managed services. Technology trends could also change as customers consider the impact of the COVID-19 pandemic on their operations.

- The new UK/European Union ("EU") trade deal due to the UK's exit from the EU (referred to as "Brexit") that came into effect on January 1, 2021 eased concerns over restrictions of imports and exports, but it increased regulatory complexities that may adversely impact our business.

Key Business Metrics

We monitor a number of financial and non-financial measures and ratios on a regular basis in order to track the progress of our business and make adjustments as necessary. We believe that the most important of these measures and ratios include average daily sales, gross margin, operating margin, Net income, Non-GAAP operating income, Non-GAAP operating income margin, Non-GAAP income before income taxes, Non-GAAP net income, Net sales growth on a constant currency basis, Net income per diluted share, Non-GAAP net income per diluted share, free cash flow, return on working capital, Cash and cash equivalents, net working capital, cash conversion cycle, debt levels including available credit, sales per coworker and coworker turnover. These measures and ratios are compared to standards or objectives set by management, so that actions can be taken, as necessary, in order to achieve the standards and objectives.

In this report, we discuss Non-GAAP operating income, Non-GAAP operating income margin, Non-GAAP income before income taxes, Non-GAAP net income and Net Sales growth on a constant currency basis, which are non-GAAP financial measures.

We believe these measures provide analysts, investors and management with helpful information regarding the underlying operating performance of our business, as they remove the impact of items that management believes are not reflective of underlying operating performance. Management uses these measures to evaluate period-over-period performance as management believes they provide a more comparable measure of the underlying business. For the definitions of Non-GAAP operating income, Non-GAAP operating income margin, Non-GAAP income before income taxes, Non-GAAP net income and Net sales growth on a constant currency basis and reconciliations to the most directly comparable US GAAP measure, see "Results of Operations - Non-GAAP Financial Measure Reconciliations."

The results of certain key business metrics are as follows:

	Year Ended December 31,		
(dollars in millions)	2020	2019	2018
Net sales	$ 18,467.5	$ 18,032.4	$ 16,240.5
Gross profit	3,210.1	3,039.9	2,706.9
Operating income	1,179.2	1,133.6	987.3
Net income	788.5	736.8	643.0
Non-GAAP operating income	1,404.6	1,368.4	1,216.6
Non-GAAP net income	954.4	902.1	794.3
Average daily sales(1)	72.7	71.0	63.9
Net debt(2)	2,517.0	3,163.3	3,002.8
Cash conversion cycle (in days)(3)	17	18	19

(1) There were 254 selling days for each of the years ended December 31, 2020, 2019, and 2018.

(2) Defined as Total debt minus Cash and cash equivalents.

(3) Cash conversion cycle is defined as days of sales outstanding in Accounts receivable and certain receivables due from vendors plus days of supply in Merchandise inventory minus days of purchases outstanding in Accounts payable and Accounts payable-inventory financing, based on a rolling three-month average.

Results of Operations

Results of operations, in dollars and as a percentage of Net sales are as follows:

	Year Ended December 31,			
	2020		2019	
	Dollars in Millions	Percentage of Net Sales	Dollars in Millions	Percentage of Net Sales
Net sales	$ 18,467.5	100.0 %	$ 18,032.4	100.0 %
Cost of sales	15,257.4	82.6	14,992.5	83.1
Gross profit	3,210.1	17.4	3,039.9	16.9
Selling and administrative expenses	2,030.9	11.0	1,906.3	10.6
Operating income	1,179.2	6.4	1,133.6	6.3
Interest expense, net	(154.9)	(0.8)	(159.4)	(0.9)
Other expense, net	(22.0)	(0.1)	(24.5)	(0.1)
Income before income taxes	1,002.3	5.4	949.7	5.3
Income tax expense	(213.8)	(1.2)	(212.9)	(1.2)
Net income	$ 788.5	4.3 %	$ 736.8	4.1 %

Net sales

Net sales by segment, in dollars and as a percentage of total Net sales, and the year-over-year dollar and percentage change in Net sales are as follows:

	Year Ended December 31,					
	2020		2019			
(dollars in millions)	Net Sales	Percentage of Total Net Sales	Net Sales	Percentage of Total Net Sales	Dollar Change	Percent Change(1)
Corporate	$ 6,846.0	37.1 %	$ 7,499.0	41.6 %	$ (653.0)	(8.7)%
Small Business	1,397.1	7.6	1,510.3	8.4	(113.2)	(7.5)
Public:						
Government	2,978.5	16.1	2,519.3	14.0	459.2	18.2
Education	3,458.1	18.7	2,411.6	13.4	1,046.5	43.4
Healthcare	1,701.1	9.2	1,933.9	10.7	(232.8)	(12.0)
Total Public	8,137.7	44.0	6,864.8	38.1	1,272.9	18.5
Other	2,086.7	11.3	2,158.3	12.0	(71.6)	(3.3)
Total Net sales	$ 18,467.5	100.0 %	$ 18,032.4	100.0 %	$ 435.1	2.4 %

(1) There were 254 selling days for both the years ended December 31, 2020 and 2019.

Total Net sales for the year ended December 31, 2020 increased $435 million, or 2.4%, to $18,468 million, compared to the prior year. The impact of foreign currency fluctuations did not have an impact to Net sales growth. For additional information, see "Non-GAAP Financial Measure Reconciliations" below regarding constant currency Net sales growth.

For the year ended December 31, 2020, Net sales growth was driven by Education and Government customers prioritizing integrated solutions including notebooks, accessories and services to support remote enablement and the Census project. These Public customer increases were partially offset by decreases in most hardware categories in our other business segments due to the impact of the COVID-19 pandemic on customer demand. For additional information, see Note 18 (Segment Information) to the accompanying Consolidated Financial Statements.

Corporate segment Net sales for the year ended December 31, 2020 decreased $653 million, or 8.7%, compared to the year ended December 31, 2019. The decrease was primarily driven by decreases across all major hardware categories due to the impact of the COVID-19 pandemic on customer demand, partially offset by an increase in software.

Small Business segment Net sales for the year ended December 31, 2020 decreased by $113 million, or 7.5%, compared to the year ended December 31, 2019. The decrease was primarily driven by decreases across all major hardware categories due to the impact of the COVID-19 pandemic on customer demand.

Public segment Net sales for the year ended December 31, 2020 increased $1,273 million, or 18.5%, compared to the year ended December 31, 2019. The increase was primarily driven by growth in Education and Government customers. Net sales to Education customers increased 43.4% primarily driven by notebooks/mobile devices as schools invested in remote enablement. Net sales to Government customers increased 18.2% primarily driven by the continued delivery on the Census project comprised of other hardware, including accessories and smartphones, and services. Increases in notebooks/mobile devices also contributed to growth in Government customers due to agencies investing in remote enablement and device refreshes. Net sales to Healthcare customers decreased 12.0% primarily driven by decreases across most hardware categories, as well as decreases in software and services as hospitals experienced budget pressures and delayed projects.

Net sales in Other, which is comprised of results from our UK and Canadian operations, for the year ended December 31, 2020 decreased $72 million, or 3.3%, compared to the year ended December 31, 2019. Net sales for Canadian operations decreased across all hardware categories, with the exception of notebooks/mobile devices. Net sales for UK operations increased primarily driven by increases in notebooks/mobile devices and software, partially offset by decreases across most other major hardware categories. The impact of foreign currency exchange decreased Other Net sales by approximately 10 basis points, primarily due to the unfavorable translation of the Canadian dollar and British pound to the US dollar.

Gross profit

Gross profit increased $170 million, or 5.6%, to $3,210 million for the year ended December 31, 2020, compared to $3,040 million for the year ended December 31, 2019. As a percentage of Net sales, Gross profit margin increased 50 basis points to 17.4% for the year ended December 31, 2020. Gross profit margin was positively impacted by product margin and the mix of netted down revenues that are booked net of cost of goods sold, primarily software as a service.

Selling and administrative expenses

Selling and administrative expenses increased $125 million, or 6.5%, to $2,031 million for the year ended December 31, 2020, compared to $1,906 million for the year ended December 31, 2019. The increase was primarily due to higher payroll expenses consistent with higher Gross profit, higher average coworker count and coworker compensation investments, and a higher provision for credit losses driven by increased reserves reflecting the expected economic impact of the COVID-19 pandemic. The increase was partially offset by cost saving measures, including decreased travel and entertainment. Total coworker count was 9,982, up 86 from 9,896 at December 31, 2019 due to our recent acquisition.

As a percentage of total Net sales, Selling and administrative expenses increased 40 basis points to 11.0% for the year ended December 31, 2020, compared to 10.6% for the year ended December 31, 2019 primarily due to higher payroll expenses and a higher provision for credit losses, partially offset by lower travel and entertainment.

Operating income

Operating income by segment, in dollars and as a percentage of Net sales, and the year-over-year percentage change was as follows:

	Year Ended December 31,				
	2020		2019		
	Dollars in Millions	Operating Margin	Dollars in Millions	Operating Margin	Percent Change in Operating Income
Segments:[1]					
Corporate	$ 489.5	7.2 %	$ 585.1	7.8 %	(16.3) %
Small Business	99.0	7.1	107.5	7.1	(7.8)
Public	678.2	8.3	475.0	6.9	42.8
Other[2]	65.9	3.2	101.6	4.7	(35.0)
Headquarters[3]	(153.4)	nm*	(135.6)	nm*	13.6
Total Operating income	$ 1,179.2	6.4 %	$ 1,133.6	6.3 %	4.0 %

* Not meaningful

(1) Segment operating income includes the segment's direct operating income, allocations for certain Headquarters' costs, allocations for income and expenses from logistics services, certain inventory adjustments and volume rebates and cooperative advertising from vendors.

(2) Includes the financial results for our other operating segments, CDW UK and CDW Canada, which do not meet the reportable segment quantitative thresholds.

(3) Includes Headquarters' function costs that are not allocated to the segments.

Operating income was $1,179 million for the year ended December 31, 2020, an increase of $46 million, or 4.0%, compared to $1,134 million for the year ended December 31, 2019. Operating income increased primarily due to higher Gross profit dollars and cost saving measures implemented during the year, partially offset by higher payroll expenses and a higher provision for credit losses. Total operating margin percentage increased 10 basis points to 6.4% for the year ended December 31, 2020, from 6.3% for the year ended December 31, 2019 primarily due to higher Gross profit margin and cost saving measures implemented during the year, partially offset by higher payroll expenses and a higher provision for credit losses as percentage of Net sales.

Corporate segment Operating income was $490 million for the year ended December 31, 2020, a decrease of $96 million, or 16.3%, compared to $585 million for the year ended December 31, 2019. Corporate segment Operating income decreased primarily due to lower Gross profit dollars and higher payroll expenses due to coworker compensation investments. Corporate segment operating margin percentage decreased 60 basis points to 7.2% for the for the year ended December 31, 2020, from 7.8% for the year ended December 31, 2019 primarily due higher payroll expenses and a higher provision for credit losses as a percentage of Net sales, partially offset by the mix of netted down revenue and cost saving measures.

Small Business segment Operating income was $99 million for the year ended December 31, 2020, a decrease of $9 million, or 7.8%, compared to $108 million for the year ended December 31, 2019. Small Business segment Operating income decreased primarily due to lower Gross profit dollars, a higher provision for credit losses and higher payroll expenses due to coworker compensation investments. Small Business segment operating margin percentage remained flat at 7.1% for both the year ended December 31, 2020 and 2019 primarily due to the mix of netted down revenue, partially offset by increased payroll expenses and a higher provision for credit losses as a percentage of Net sales.

Public segment Operating income was $678 million for the year ended December 31, 2020, an increase of $203 million, or 42.8%, compared to $475 million for the year ended December 31, 2019. Public segment Operating income increased primarily due to higher Gross profit dollars, partially offset by higher sales payroll expenses. Public segment operating margin percentage increased 140 basis points to 8.3% for the year ended December 31, 2020, from 6.9% for the year ended December 31, 2019, primarily due to a mix into more profitable product offerings and services and by cost saving measures as a percentage of Net sales.

Other Operating income was $66 million for the year ended December 31, 2020, a decrease of $36 million, or 35.0%, compared to $102 million for the year ended December 31, 2019. Other Operating income decreased primarily due to lower Gross profit dollars, higher payroll expenses due to higher average coworker count and coworker compensation investments in addition to a higher provision for credit losses. Other operating margin percentage decreased 150 basis points to 3.2% for the year ended December 31, 2020, from 4.7% for the year ended December 31, 2019, primarily due to higher payroll expenses and a higher provision for credit losses as a percentage of Net sales.

Interest expense, net

Interest expense, net in 2020 was $155 million, a decrease of $4 million, compared to $159 million in 2019. This decrease was primarily due to paying a lower effective interest rate on the term loan in 2020 compared to the capped rate in 2019, partially offset by additional interest expense on the senior notes issued in April 2020.

Income tax expense

Income tax expense was $214 million in 2020, compared to $213 million in 2019. The effective income tax rate, expressed by calculating income tax expense as a percentage of Income before income taxes, was 21.3% and 22.4% for 2020 and 2019, respectively.

For 2020, the effective tax rate differed from the US federal statutory rate primarily due to state income taxes, a discrete deferred tax expense as a result of an increase in the UK corporate tax rate, partially offset by excess tax benefits on equity-based compensation and tax benefits associated with new IRS regulations for global intangible low taxed income ("GILTI") and non-deductible expenses for the current and prior years. For 2019, the effective tax rate differed from the US federal statutory rate primarily due to state income taxes, partially offset by tax credits, excess tax benefits on equity-based compensation and a tax benefit related to CDW Canada's acquisition of Scalar. The 2020 effective tax rate was lower than 2019 primarily due to the tax benefits associated with the new IRS regulations for GILTI and lower non-deductible expenses.

Non-GAAP Financial Measure Reconciliations

We have included reconciliations of Non-GAAP operating income, Non-GAAP operating income margin, Non-GAAP income before income taxes, Non-GAAP net income, and Net sales growth on a constant currency basis for the years ended December 31, 2020 and 2019 below.

Non-GAAP operating income excludes, among other things, charges related to the amortization of acquisition-related intangible assets, equity-based compensation and the associated payroll taxes, a workforce reduction program and acquisition and integration expenses. Non-GAAP operating income margin is defined as Non-GAAP operating income as a percentage of Net sales. Non-GAAP income before income taxes and Non-GAAP net income exclude, among other things, charges related to acquisition-related intangible asset amortization, equity-based compensation, net loss on extinguishment of long-term debt, a workforce reduction program, acquisition and integration expenses, and the associated tax effects of each. Net sales growth on a constant currency basis is defined as Net sales growth excluding the impact of foreign currency translation on net sales compared to the prior period.

Non-GAAP operating income, Non-GAAP operating income margin, Non-GAAP income before income taxes, Non-GAAP net income and Net sales growth on a constant currency basis are considered non-GAAP financial measures. Generally, a non-GAAP financial measure is a numerical measure of a company's performance or financial position that either excludes or includes amounts that are not normally included or excluded in the most directly comparable measure calculated and presented in accordance with US GAAP. Non-GAAP measures used by management may differ from similar measures used by other companies, even when similar terms are used to identify such measures.

We believe these measures provide analysts, investors and management with helpful information regarding the underlying operating performance of our business, as they remove the impact of items that management believes are not reflective of underlying operating performance. Management uses these measures to evaluate period-over-period performance as management believes they provide a more comparable measure of the underlying business.

Non-GAAP operating income

Non-GAAP operating income was $1,405 million for the year ended December 31, 2020, an increase of $37 million, or 2.6%, compared to $1,368 million for the year ended December 31, 2019. As a percentage of Net sales, Non-GAAP operating income was 7.6% for each of the years ended December 31, 2020 and 2019.

	Year Ended December 31,	
(dollars in millions)	2020	2019
Operating income	$ 1,179.2	$ 1,133.6
Amortization of intangibles[1]	158.1	178.5
Equity-based compensation	42.5	48.5
Workforce reduction charges	8.5	—
Other adjustments[2]	16.3	7.8
Non-GAAP operating income	$ 1,404.6	$ 1,368.4
Non-GAAP operating income margin	7.6 %	7.6 %

(1) Includes amortization expense for acquisition-related intangible assets, primarily customer relationships, customer contracts and trade names.

(2) Includes other expenses such as payroll taxes on equity-based compensation, expenses related to the relocation of the downtown Chicago office, and acquisition and integration expenses.

Non-GAAP net income

Non-GAAP net income was $954 million for the year ended December 31, 2020, an increase of $52 million, or 5.8%, compared to $902 million for the year ended December 31, 2019.

	Year Ended December 31, 2020			Year Ended December 31, 2019		
(dollars in millions)	Income before income taxes	Income tax expense[1]	Net income	Income before income taxes	Income tax expense[1]	Net income
US GAAP, as reported	$ 1,002.3	$ (213.8)	$ 788.5	$ 949.7	$ (212.9)	$ 736.8
Amortization of intangibles[2]	158.1	(36.8)	121.3	178.5	(44.6)	133.9
Equity-based compensation	42.5	(37.0)	5.5	48.5	(36.6)	11.9
Net loss on extinguishments of long-term debt	27.3	(6.8)	20.5	22.1	(5.5)	16.6
Workforce reduction charges	8.5	(2.1)	6.4	—	—	—
Other adjustments[3]	16.3	(4.1)	12.2	7.8	(4.9)	2.9
Non-GAAP	$ 1,255.0	$ (300.6)	$ 954.4	$ 1,206.6	$ (304.5)	$ 902.1

(1) Income tax on non-GAAP adjustments includes excess tax benefits associated with equity-based compensation.

(2) Includes amortization expense for acquisition-related intangible assets, primarily customer relationships, customer contracts and trade names.

(3) Includes other expenses such as payroll taxes on equity-based compensation, expenses related to the relocation of the downtown Chicago office, and acquisition and integration expenses.

Net sales growth on a constant currency basis

Net sales increased $435 million, or 2.4%, to $18,468 million for the year ended December 31, 2020, compared to $18,032 million for the year ended December 31, 2019. Net sales on a constant currency basis, which excludes the impact of foreign currency translation, increased $438 million, or 2.4%.

	Year Ended December 31,		
(dollars in millions)	2020	2019	% Change[(1)]
Net sales, as reported	$ 18,467.5	$ 18,032.4	2.4 %
Foreign currency translation[(2)]	—	(2.5)	
Net sales, on a constant currency basis	$ 18,467.5	$ 18,029.9	2.4 %

(1) There were 254 selling days for both the years ended December 31, 2020 and 2019.

(2) Represents the effect of translating the prior period results of CDW UK and CDW Canada at the average exchange rates applicable in the current year.

Seasonality

While we have not historically experienced significant seasonality throughout the year, sales in our Corporate segment, which primarily serves US private sector business customers with more than 250 employees, are typically higher in the fourth quarter than in other quarters due to customers spending their remaining technology budget dollars at the end of the year. Additionally, sales in our Public segment have historically been higher in the third quarter than in other quarters primarily due to the buying patterns of the federal government and education customers. During 2020, we experienced variability compared to historic seasonality trends. As uncertainty due to COVID-19 remains, seasonality is expected to continue to be different than historical experience.

Liquidity and Capital Resources

Overview

We finance our operations and capital expenditures with internally generated cash from operations and borrowings under our revolving credit facility. As of December 31, 2020, we also had $1.0 billion of availability for borrowings under our senior secured asset-based revolving credit facility and an additional £50 million ($68 million) under the CDW UK revolving credit facility. Our liquidity and borrowing plans are established to align with our financial and strategic planning processes and ensure we have the necessary funding to meet our operating commitments, which primarily include the purchase of inventory, payroll and general expenses. We also take into consideration our overall capital allocation strategy, which includes investment for future growth, dividend payments, acquisitions and share repurchases. During 2020, we bolstered our liquidity position by completing a $600 million senior notes issuance in April 2020, and leveraging the lower interest rate environment by refinancing one of our higher interest rate senior notes in August 2020. We also temporarily suspended share repurchases from March 2020 through October 2020. We took additional measures to enhance our liquidity by implementing various cost savings initiatives. We believe we have adequate sources of liquidity and funding available for at least the next year; however, there are a number of factors that may negatively impact our available sources of funds. The amount of cash generated from operations will be dependent upon factors such as the successful execution of our business plan, general economic conditions and working capital management, including accounts receivable.

Long-Term Debt and Financing Arrangements

On April 21, 2020, we completed the issuance of $600 million aggregate principal amount of 4.125% Senior Notes due May 2025 at par.

On August 13, 2020, we completed the refinance of $600 million aggregate principal amount of 5.000% Senior Notes due September 2025 through the issuance of $700 million aggregate principal amount of 3.250% Senior Notes due February 2029 at par.

As of December 31, 2020, we had total indebtedness of $3.9 billion, of which $1.5 billion was secured indebtedness. At December 31, 2020, we were in compliance with the covenants under our various credit agreements and indentures.

For additional information regarding our debt and refinancing activities, see Note 10 (Long-Term Debt) to the accompanying Consolidated Financial Statements.

Inventory Financing Agreements

We have entered into agreements with certain financial intermediaries to facilitate the purchase of inventory from various suppliers under certain terms and conditions. These amounts are classified separately as Accounts payable-inventory financing on the Consolidated Balance Sheets. We do not incur any interest expense associated with these agreements as balances are paid when they are due. For additional information, see Note 7 (Inventory Financing Agreements) to the accompanying Consolidated Financial Statements.

Share Repurchase Program

During 2020, we repurchased 2.6 million shares of our common stock for $341 million under the previously announced share repurchase program. During 2020, we temporarily suspended share repurchases from March 2020 through October 2020 as a precautionary measure in light of the COVID-19 pandemic. For additional information, see "Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities."

Dividends

A summary of 2020 dividend activity for our common stock is as follows:

Dividend Amount	Declaration Date	Record Date	Payment Date
$0.380	February 6, 2020	February 25, 2020	March 10, 2020
$0.380	May 6, 2020	May 25, 2020	June 10, 2020
$0.380	August 4, 2020	August 25, 2020	September 10, 2020
$0.400	November 2, 2020	November 25, 2020	December 10, 2020
$1.540			

On February 10, 2021, we announced that our Board of Directors declared a quarterly cash dividend on our common stock of $0.400 per share. The dividend will be paid on March 10, 2021 to all stockholders of record as of the close of business on February 25, 2021.

The payment of any future dividends will be at the discretion of our Board of Directors and will depend upon our results of operations, financial condition, business prospects, capital requirements, contractual restrictions, any potential indebtedness we may incur, restrictions imposed by applicable law, tax considerations and other factors that our Board of Directors deems relevant. In addition, our ability to pay dividends on our common stock will be limited by restrictions on our ability to pay dividends or make distributions to our stockholders and on the ability of our subsidiaries to pay dividends or make distributions to us, in each case, under the terms of our current and any future agreements governing our indebtedness.

Coronavirus Aid, Relief, and Economic Security Act

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") was enacted into law. The primary impact to our financial statements as a result of the CARES Act was the deferral of US corporate income tax payments from the second quarter of 2020 to July 2020 as well as the deferral of employer related payroll tax payments from the second, third and fourth quarters of 2020 with 50% to be paid in the fourth quarter of 2021 and the remaining 50% to be paid in the fourth quarter of 2022.

Cash Flows

Cash flows from operating, investing and financing activities are as follows:

(dollars in millions)	Year Ended December 31, 2020	2019
Net cash provided by (used in):		
Operating activities	$ 1,314.3	$ 1,027.2
Investing activities	(201.0)	(331.4)
Net change in accounts payable - inventory financing	93.0	(1.3)
Other financing activities	45.8	(748.5)
Financing activities	138.8	(749.8)
Effect of exchange rate changes on cash and cash equivalents	4.1	2.2
Net increase (decrease) in cash and cash equivalents	$ 1,256.2	$ (51.8)

Operating Activities

Cash flows from operating activities are as follows:

(dollars in millions)	Year Ended December 31, 2020	2019	Change
Net income	$ 788.5	$ 736.8	$ 51.7
Adjustments for the impact of non-cash items(1)	520.9	256.7	264.2
Net income adjusted for the impact of non-cash items(2)	1,309.4	993.5	315.9
Changes in assets and liabilities:			
Accounts receivable(3)	(226.4)	(244.8)	18.4
Merchandise inventory(4)	(71.4)	(153.0)	81.6
Accounts payable-trade(5)	253.7	194.1	59.6
Other(6)	49.0	237.4	(188.4)
Net cash provided by operating activities	$ 1,314.3	$ 1,027.2	$ 287.1

(1) Includes items such as deferred income taxes, depreciation and amortization, and equity-based compensation expense.

(2) The change is due to stronger operating results driven by Gross profit growth and higher depreciation and amortization.

(3) The change is primarily due to improved collection performance partially offset by increased sales.

(4) The change is due to lower customer-driven and strategic stocking positions partially offset by timing of receipts and shipments.

(5) The change is primarily due to mixing into vendors with extended payment terms in 2021, increased sales and year-end inventory purchases.

(6) The change is primarily due to lower contract liabilities partially offset by higher accrued compensation expense in 2020 compared to 2019.

In order to manage our working capital and operating cash needs, we monitor our cash conversion cycle, defined as days of sales outstanding in accounts receivable plus days of supply in inventory minus days of purchases outstanding in accounts payable, based on a rolling three-month average. Components of our cash conversion cycle are as follows:

	December 31,	
(in days)	2020	2019
Days of sales outstanding (DSO)(1)	57	57
Days of supply in inventory (DIO)(2)	14	14
Days of purchases outstanding (DPO)(3)	(54)	(53)
Cash conversion cycle	17	18

(1) Represents the rolling three-month average of the balance of Accounts receivable, net at the end of the period, divided by average daily Net sales for the same three-month period. Also incorporates components of other miscellaneous receivables.

(2) Represents the rolling three-month average of the balance of Merchandise inventory at the end of the period divided by average daily Cost of sales for the same three-month period.

(3) Represents the rolling three-month average of the combined balance of Accounts payable-trade, excluding cash overdrafts, and Accounts payable-inventory financing at the end of the period divided by average daily Cost of sales for the same three-month period.

The cash conversion cycle decreased to 17 days at December 31, 2020, compared to 18 days at December 31, 2019. DSO and DIO both remained unchanged at 57 days and 14 days, respectively. DPO increased by 1 day to 54 days driven by mixing into vendors with extended payment terms during the quarter compared to 2019.

Investing Activities

Net cash used in investing activities decreased $130 million in 2020 compared to 2019. The decrease was primarily due to decreased Capital expenditures of $78 million from fewer purchases of devices for the Census program and lower investments in acquisitions.

Financing Activities

Net cash provided by financing activities increased $889 million in the year ended December 31, 2020 compared to year ended December 31, 2019. The increase was primarily driven by the $600 million debt offering completed in April 2020, lower share repurchases and increased volume through our inventory financing arrangements, partially offset by decreased borrowings under our revolving credit facilities and higher dividend payments. For additional information regarding our debt activities, see Note 10 (Long-Term Debt) to the accompanying Consolidated Financial Statements.

Contractual Obligations

We have future obligations under various contracts relating to debt and interest payments and operating leases. Our estimated future payments, based on undiscounted amounts, under contractual obligations that existed as of December 31, 2020, are as follows:

	Payments Due by Period				
(dollars in millions)	Total	2021	2022-2023	2024-2025	2026 & Thereafter
Term Loan(1)	$ 1,577.4	$ 42.2	$ 83.6	$ 82.5	$ 1,369.1
CDW UK Term Loan(1)	56.5	56.5	—	—	—
Senior Notes due 2024(2)	701.5	31.6	63.3	606.6	—
Senior Notes due 2025(2)	711.4	24.8	49.5	637.1	—
Senior Notes due 2028(2)	791.3	25.5	51.0	51.0	663.8
Senior Notes due 2029(2)	893.5	22.9	45.5	45.5	779.6
Operating leases(3)	243.2	32.8	49.2	37.8	123.4
Total	$ 4,974.8	$ 236.3	$ 342.1	$ 1,460.5	$ 2,935.9

(1) Includes future principal and cash interest payments on long-term borrowings through scheduled maturity dates. Interest payments for variable rate debt were calculated using interest rates as of December 31, 2020. Excluded from these amounts are the amortization of debt issuance and other costs related to indebtedness.

(2) Includes future principal and cash interest payments on long-term borrowings through scheduled maturity dates. Interest on the Senior Notes is calculated using the stated interest rates. Excluded from these amounts are the amortization of debt issuance and other costs related to indebtedness.

(3) For additional information, see Note 12 (Leases) to the accompanying Consolidated Financial Statements.

Off-Balance Sheet Arrangements

We have no off-balance sheet arrangements that have or are reasonably likely to have a material current or future effect on our financial condition, results of operations or liquidity.

Issuers and Guarantors of Debt Securities

Each series of our outstanding unsecured senior notes (the "Notes") are issued by CDW LLC and CDW Finance Corporation (the "Issuers") and are guaranteed by CDW Corporation ("Parent") and each of CDW LLC's direct and indirect, 100% owned, domestic subsidiaries (the "Guarantor Subsidiaries" and, together with Parent, the "Guarantors"). All guarantees by Parent and the Guarantors are joint and several, and full and unconditional; provided that guarantees by the Guarantor Subsidiaries are subject to certain customary release provisions contained in the indentures governing the Notes.

The Notes and the related guarantees are the Issuers' and the Guarantors' senior unsecured obligations and are:

- structurally subordinated to all existing and future indebtedness and other liabilities of our non-guarantor subsidiaries and
- rank equal in right of payment with all of the Issuers' and the Guarantors' existing and future unsecured senior debt.

The following tables set forth Balance Sheet information as of December 31, 2020 and December 31, 2019, and Statement of Operations information for the years ended December 31, 2020 and 2019 for the accounts of the Issuers and the accounts of the Guarantors (the "Obligor Group"). The financial information of the Obligor Group is presented on a combined basis and the intercompany balances and transactions between the Obligor Group have been eliminated.

Balance Sheet Information

	December 31,	
(dollars in millions)	2020	2019
Current assets	$ 5,161.3	$ 3,601.6
Goodwill	2,239.1	2,206.1
Other assets	572.1	903.1
Total Non-current assets	2,811.2	3,109.2
Current liabilities	3,265.0	2,975.3
Long-term debt	3,856.5	3,229.5
Other liabilities	209.8	188.3
Total Long-term liabilities	4,066.3	3,417.8

Statements of Operations Information

	Year Ended December 31,	
(dollars in millions)	2020	2019
Net sales	$ 16,380.8	$ 15,874.1
Gross profit	2,851.8	2,666.8
Operating income	1,113.2	1,032.1
Net income	738.8	656.7

Inflation

Inflation has not had a material impact on our operating results. We generally have been able to pass along price increases to our customers, though certain economic factors and technological advances in recent years have tended to place downward pressure on pricing. We also have been able to generally offset the effects of inflation on operating costs by continuing to emphasize productivity improvements. There can be no assurances, however, that inflation would not have a material impact on our sales or operating costs in the future.

Commitments and Contingencies

The information set forth in Note 17 (Commitments and Contingencies) to the accompanying Consolidated Financial Statements included in Part II, Item 8 of this report is incorporated herein by reference.

Critical Accounting Policies and Estimates

The preparation of the Consolidated Financial Statements in accordance with US GAAP requires management to make use of certain estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses, as well as related disclosure of contingent assets and liabilities in the Consolidated Financial Statements and accompanying notes. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. Historically, we have not made significant changes to the methods for determining these estimates as our actual results have not differed materially from our estimates. We do not believe it is reasonably likely that the estimates and related assumptions will change materially in the foreseeable future; however, actual results could differ from those estimates under different assumptions, judgments or conditions. We have reviewed our critical accounting policies with the Audit Committee of our Board of Directors.

Critical accounting policies and estimates are those that are most important to the portrayal of our financial condition and results of operations, and which require us to make our most difficult and subjective judgments, often as a result of the need to make estimates of matters that are inherently uncertain. Based on this definition, we have identified the critical accounting policies and estimates addressed below. For additional information related to significant accounting policies used in the preparation of our Consolidated Financial Statements, see Note 1 (Description of Business and Summary of Significant Accounting Policies) to the accompanying Consolidated Financial Statements.

Revenue Recognition

We sell some of our products and services as part of bundled contract arrangements containing multiple deliverables, which may include a combination of different products and services. Significant judgment may be required when determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together.

For contracts consisting of multiple performance obligations, the total transaction price is allocated to each performance obligation based upon its standalone selling price. Judgment is required to determine the standalone selling price for each distinct performance obligation. For certain performance obligations, we will use a combination of methods to estimate the standalone selling price based on recent transactions. When evidence from recent transactions is not available to confirm that the prices are representative of the standalone selling price, an expected cost plus margin approach is used.

Additional judgment is required in determining whether we are the principal, and report revenues on a gross basis, or agent, and report revenues on a net basis. For each identified performance obligation in a transaction, we evaluate the facts and circumstances present to determine whether or not we control the specified good or service prior to transfer to the customer. This evaluation includes, but is not limited to, assessing indicators such as whether: (i) we are primarily responsible for fulfilling the promise to provide the specified goods or service, (ii) we have inventory risk before the specified good or service has been transferred to a customer and (iii) we have discretion in establishing the price for the specified good or service. When the evaluation indicates we control the specified good or service prior to transfer to the customer, we are acting as a principal. When the evaluation indicates we do not control the specified good or service prior transfer to the customer, we are acting as an agent.

The nature of our contracts give rise to variable consideration in the form of volume rebates and sales returns and allowances. We estimate variable consideration at the most likely amount to which we expect to be entitled. The estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based on an assessment of our anticipated performance and all information that is reasonably available.

We recognize revenue on performance obligations when the customer obtains control over the specified good or service. That is, when the customer has the ability to direct the use of and obtain substantially all of the benefits from the good or service. For the sale of hardware and software, this is generally upon delivery to the customer. As a result, we perform an analysis to estimate the amount of Net sales in-transit at the end of the period and adjust revenue and the related costs to reflect only what has been delivered to the customer. This analysis requires judgment whereby we perform an analysis of the estimated number of days of sales in-transit to customers at the end of each reporting period based on a weighted-average analysis of commercial delivery terms that include drop-shipment arrangements. Changes in delivery patterns may result in a different number of business days estimated to make this adjustment.

Vendor Programs

We receive incentives from certain vendors related to cooperative advertising, volume rebates, bid programs, price protection and other programs. These incentives generally relate to written agreements with specified performance requirements with the vendors and are recorded as adjustments to Cost of sales or Merchandise inventory, depending on the nature of the incentive. We record vendor partner receivables related to these programs when the amounts are probable and reasonably estimable. Some programs are based on the achievement of specific targets, and we base our estimates on information provided by our vendors and internal information to assess our progress toward achieving those targets.

We also record reserves for vendor partner receivables for estimated losses due to vendors' inability to pay or rejections by vendors of claims. In estimating the required allowance, we take into consideration collections performance and the aging of the incentive receivables, as well as specific vendor circumstances.

Goodwill

Goodwill is allocated to reporting units expected to benefit from the business combination. Goodwill is not amortized but is subject to periodic testing for impairment at the reporting unit level on an annual basis each December 1, or more frequently if events or changes in circumstances indicate that the asset may be impaired. These events or circumstances could include a significant change in the business climate, legal factors, operating performance indicators, competition or sale or disposition of a significant portion of a reporting unit.

We may elect to utilize a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. As part of our qualitative assessment, judgment is required in weighing the effect of various positive and negative factors that may affect the fair value. We consider various factors, including the excess of fair value over carrying value from the last quantitative test, macroeconomic conditions, industry and market considerations, the projected financial performance and actual financial performance compared to prior year projected financial performance.

If we elect to bypass the qualitative assessment, or if indicators of impairment exist, a quantitative impairment test is performed. As part of the quantitative assessment, application of the goodwill impairment test requires judgment, including the identification of reporting units, assignment of assets and liabilities to reporting units, assignment of goodwill to reporting units, and determination of the fair value of each reporting unit. Fair value of a reporting unit is determined by using a weighted combination of an income approach and a market approach, as this combination is considered the most indicative of our fair value in an orderly transaction between market participants. This analysis requires significant judgments, including estimation of future cash flows, which is dependent on internal forecasts, estimation of the long-term rate of growth for our business, estimation of the useful life over which cash flows will occur, determination of our weighted average cost of capital, future market conditions and profitability of future business strategies. The estimates used to calculate the fair value of a reporting unit change from year to year based on operating results, market conditions and other factors. Changes in these estimates and assumptions could materially affect the determination of fair value and goodwill impairment for each reporting unit. However, our past estimates of fair value would not have indicated an impairment when revised to include subsequent years' actual results.

Intangible Assets

Intangible assets include customer relationships, trade names, internally developed software and other intangibles. Intangible assets are amortized on a straight-line basis over the estimated useful life of the asset and reviewed for impairment when events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. The valuation and classification of these assets and the assignment of useful lives involve significant judgment and the use of estimates. The valuation, classification and assignment of useful lives are derived using market inputs, historic experience and third-party guidance.

Income Taxes

The determination of our provision for income taxes and evaluating our tax positions requires significant judgment, the use of estimates and the interpretation and application of complex tax laws. Our provision for income taxes primarily reflects a combination of income earned and taxed in the various US federal and state, as well as foreign, jurisdictions. Our annual effective tax rate is based on our income, the jurisdiction(s) in which the income is earned and subjected to taxation, the tax laws in those various jurisdictions which can be affected by tax law changes, increases or decreases in permanent differences between book and tax items, and accruals or adjustments of accruals for unrecognized tax benefits or valuation allowances.

We establish reserves to remove some or all of the tax benefit of any of our tax positions at the time we determine that the position becomes uncertain based upon one of the following: (1) the tax position is not more likely than not to be sustained, (2) the tax position is more likely than not to be sustained, but for a lesser amount, or (3) the tax position is more likely than not to be sustained, but not in the financial period in which the tax position was originally taken. Reserves related to tax accruals and valuation allowances related to deferred tax assets can be impacted by changes in tax law in the relevant jurisdiction(s) and our future taxable income levels in the relevant jurisdiction(s) with respect to valuation allowances.

Allowance for Credit Losses

We estimate an allowance for credit losses related to accounts receivable for future expected credit losses by using relevant information such as historical information, current conditions, and reasonable and supportable forecasts. The allowance is measured on a pool basis when similar risk characteristics exist, and a loss-rate for each pool is determined using historical credit loss experience as the basis for the estimation of expected credit losses. Adjustments to historical loss information involves making informed judgments to reflect our expectations for differences in current conditions, as well as changes in forecasted macroeconomic conditions, such as changes in the unemployment rate or gross domestic product growth, when applicable. We also consider internal information on pool specific factors to inform our decision making. We typically observe a higher loss-rate experience with customers in the pools associated with our Corporate and Small Business segments, as compared to the pools associated with the Public segment. During the year ended December 31, 2020, we recognized an increase in the allowance to reflect the forecasted credit deterioration due to the COVID-19 pandemic, which considered geographic-specific factors, customer makeup and the overall size of our pools, as well as the impacts experienced to date and the impacts from the last significant economic downturn in 2008-2009. As the overall impact and duration of the COVID-19 pandemic remains uncertain, our estimates and assumptions may evolve as conditions change.

Recent Accounting Pronouncements

The information set forth in Note 2 (Recent Accounting Pronouncements) to the accompanying Consolidated Financial Statements included in Part II, Item 8 of this report is incorporated herein by reference.

Item 7A. Quantitative and Qualitative Disclosures of Market Risks

Interest Rate Risk

Our market risks relate primarily to changes in interest rates. The interest rates on borrowings under our senior secured asset-based revolving credit facility, our senior secured term loan facility and the CDW UK term loan are floating and, therefore, are subject to fluctuations. In order to manage the risk associated with changes in interest rates on borrowings under our senior secured term loan facility, we have entered into interest rate caps to add stability to interest expense and to manage our exposure to interest rate fluctuations.

As of December 31, 2020, we have an interest rate cap agreement in effect with a notional amount of $1.4 billion. For additional information, see Note 9 (Financial Instruments) to the accompanying Consolidated Financial Statements.

See "Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources - Contractual Obligations" for information on cash flows, interest rates and maturity dates of our debt obligations.

Foreign Currency Risk

We transact business in foreign currencies other than the US dollar, primarily the British pound and the Canadian dollar, which exposes us to foreign currency exchange rate fluctuations. Revenue and expenses generated from our international operations are generally denominated in the local currencies of the corresponding countries. The functional currency of our international operating subsidiaries is the same as the corresponding local currency. Upon consolidation, as results of operations are translated, operating results may differ from expectations. The direct effect of foreign currency fluctuations on our results of operations has not been material as the majority of our results of operations are denominated in US dollars.

Item 8. Financial Statements and Supplementary Data

Index to Consolidated Financial Statements

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of CDW Corporation and subsidiaries

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of CDW Corporation and subsidiaries (the Company) as of December 31, 2020 and 2019, the related consolidated statements of operations, comprehensive income, stockholders' equity, and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and financial statement schedule listed in the Index at Item 15(a) (2) (collectively referred to as the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company at December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020, 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, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) and our report dated February 26, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

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

	Revenue recognition
Description of the Matter	As described in Note 1 to the consolidated financial statements, the Company recognizes revenue upon transfer of control of promised products or services to customers. The Company applies judgment in determining whether it is the principal and reports revenue on a gross basis, or an agent and reports revenue on a net basis. The Company also sells some of its products and services as part of bundled contract arrangements containing multiple performance obligations. Significant judgment may be required when determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together. For each distinct performance obligation, judgment is required to determine the relative standalone selling price to allocate the transaction price, such as using an expected cost plus margin approach. Auditing the Company's contracts with customers was challenging given the significant audit effort required to analyze the Company's various products, services and contract arrangements. For example, certain customer contracts contain multiple parties and there can be subjective judgment in assessing the Company's role as principal or agent in the contract arrangement. For certain other customer contracts, there can be judgment in the identification of the distinct performance obligations along with the determination of the associated relative standalone selling prices.
How We Addressed the Matter in Our Audit	We obtained an understanding of the revenue process, evaluated the design and tested the operating effectiveness of the Company's internal controls over the relevant terms of the customer contracts, including the determination of principal versus agent, the identification of distinct performance obligations and the determination of the relative standalone selling price for separate performance obligations. To test revenue recognition, our audit procedures included among others, examination of executed customer contracts for a sample of sales transactions, and evaluating the Company's determination of principal versus agent, identifying products and services in the contract and assessing separate distinct performance obligations. To test management's determination of relative standalone selling price for separate performance obligations, we performed audit procedures that included, among others, assessing the appropriateness of the methodology applied, testing the mathematical accuracy of the underlying data and calculations and inspecting the underlying data information on a sample basis.

/s/ Ernst & Young LLP
We have served as the Company's auditor since 2011.
Chicago, Illinois
February 26, 2021

CDW CORPORATION AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
(dollars in millions, except per share amounts)

	December 31, 2020	December 31, 2019
Assets		
Current assets:		
Cash and cash equivalents	$ 1,410.2	$ 154.0
Accounts receivable, net of allowance for credit losses of $29.6 and $7.9, respectively	3,212.6	3,002.2
Merchandise inventory	760.0	611.2
Miscellaneous receivables	379.5	395.1
Prepaid expenses and other	191.2	171.6
Total current assets	5,953.5	4,334.1
Operating lease right-of-use assets	130.8	131.8
Property and equipment, net	175.5	363.1
Goodwill	2,595.9	2,553.0
Other intangible assets, net	445.1	594.1
Other assets	43.9	23.3
Total Assets	$ 9,344.7	$ 7,999.4
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable-trade	$ 2,088.4	$ 1,835.0
Accounts payable-inventory financing	524.6	429.9
Current maturities of long-term debt	70.9	34.1
Contract liabilities	243.7	252.2
Accrued expenses and other current liabilities:		
Compensation	288.3	212.3
Advertising	153.4	147.9
Sales and income taxes	104.2	88.6
Other	424.8	491.4
Total current liabilities	3,898.3	3,491.4
Long-term liabilities:		
Debt	3,856.3	3,283.2
Deferred income taxes	55.3	62.4
Operating lease liabilities	169.0	131.1
Other liabilities	68.7	71.0
Total long-term liabilities	4,149.3	3,547.7
Stockholders' equity:		
Preferred stock, $0.01 par value, 100.0 shares authorized; no shares issued or outstanding for both periods	—	—
Common stock, $0.01 par value, 1,000.0 shares authorized; 141.9 and 143.0 shares outstanding, respectively	1.4	1.4
Paid-in capital	3,204.9	3,095.3
Accumulated deficit	(1,813.4)	(2,018.6)
Accumulated other comprehensive loss	(95.8)	(117.8)
Total stockholders' equity	1,297.1	960.3
Total Liabilities and Stockholders' Equity	$ 9,344.7	$ 7,999.4

The accompanying notes are an integral part of the Consolidated Financial Statements.

CDW CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF OPERATIONS
(dollars in millions, except per share amounts)

	Year Ended December 31,		
	2020	2019	2018
Net sales	$ 18,467.5	$ 18,032.4	$ 16,240.5
Cost of sales	15,257.4	14,992.5	13,533.6
Gross profit	3,210.1	3,039.9	2,706.9
Selling and administrative expenses	2,030.9	1,906.3	1,719.6
Operating income	1,179.2	1,133.6	987.3
Interest expense, net	(154.9)	(159.4)	(148.6)
Other (expense) income, net	(22.0)	(24.5)	1.8
Income before income taxes	1,002.3	949.7	840.5
Income tax expense	(213.8)	(212.9)	(197.5)
Net income	$ 788.5	$ 736.8	$ 643.0
Net income per common share:			
Basic	$ 5.53	$ 5.08	$ 4.26
Diluted	$ 5.45	$ 4.99	$ 4.19
Weighted-average common shares outstanding:			
Basic	142.6	145.1	150.9
Diluted	144.8	147.8	153.6

The accompanying notes are an integral part of the Consolidated Financial Statements.

CDW CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(dollars in millions)

	Year Ended December 31,		
	2020	2019	2018
Net income	$ 788.5	$ 736.8	$ 643.0
Other comprehensive income (loss):			
Unrealized loss from hedge accounting, net of tax	(0.6)	(11.3)	(5.9)
Reclassification of hedge accounting loss to net income, net of tax	6.0	1.7	3.9
Foreign currency translation, net of tax	16.6	22.4	(32.7)
Other comprehensive income (loss)	22.0	12.8	(34.7)
Comprehensive income	$ 810.5	$ 749.6	$ 608.3

The accompanying notes are an integral part of the Consolidated Financial Statements.

CDW CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(dollars in millions)

	Common Stock		Treasury Stock					
	Shares	Amount	Shares	Amount	Paid-in Capital	Accumulated Deficit	Accumulated Other Comprehensive Loss	Total Stockholders' Equity
Balance as of December 31, 2017	153.1	$ 1.5	0.1	$ —	$ 2,911.6	$ (1,831.6)	$ (95.9)	$ 985.6
Net income	—	—	—	—	—	643.0	—	643.0
Equity-based compensation expense	—	—	—	—	36.5	—	—	36.5
Stock option exercises	0.8	—	—	—	28.6	—	—	28.6
Coworker Stock Purchase Plan	0.1	—	—	—	11.8	—	—	11.8
Repurchases of common stock	(6.3)	—	—	—	—	(522.3)	—	(522.3)
Dividend payments ($0.925 per share)	—	—	—	—	0.8	(140.2)	—	(139.4)
Incentive compensation plan stock withheld for taxes	—	—	(0.1)	—	7.6	(41.5)	—	(33.9)
Foreign currency translation	—	—	—	—	—	—	(32.7)	(32.7)
Unrealized loss from hedge accounting	—	—	—	—	—	—	(5.9)	(5.9)
Reclassification of hedge accounting loss to net income	—	—	—	—	—	—	3.9	3.9
Balance as of December 31, 2018	147.7	$ 1.5	—	$ —	$ 2,996.9	$ (1,892.6)	$ (130.6)	$ 975.2
Net income	—	—	—	—	—	736.8	—	736.8
Equity-based compensation expense	—	—	—	—	47.7	—	—	47.7
Stock option exercises	1.3	—	—	—	34.9	—	—	34.9
Coworker Stock Purchase Plan	0.1	—	—	—	14.9	—	—	14.9
Repurchases of common stock	(6.1)	(0.1)	—	—	—	(657.1)	—	(657.2)
Dividend payments ($1.265 per share)	—	—	—	—	0.9	(184.3)	—	(183.4)
Incentive compensation plan stock withheld for taxes	—	—	—	—	—	(21.4)	—	(21.4)
Foreign currency translation	—	—	—	—	—	—	22.4	22.4
Unrealized loss from hedge accounting	—	—	—	—	—	—	(11.3)	(11.3)
Reclassification of hedge accounting loss to net income	—	—	—	—	—	—	1.7	1.7
Balance as of December 31, 2019	143.0	$ 1.4	—	$ —	$ 3,095.3	$ (2,018.6)	$ (117.8)	$ 960.3
Net income	—	—	—	—	—	788.5	—	788.5
Equity-based compensation expense	—	—	—	—	42.5	—	—	42.5
Stock option exercises	1.4	—	—	—	49.2	—	—	49.2
Coworker Stock Purchase Plan	0.1	—	—	—	16.8	—	—	16.8
Repurchases of common stock	(2.6)	—	—	—	—	(340.6)	—	(340.6)
Dividend payments ($1.540 per share)	—	—	—	—	1.1	(220.7)	—	(219.6)
Incentive compensation plan stock withheld for taxes	—	—	—	—	—	(22.5)	—	(22.5)
Foreign currency translation	—	—	—	—	—	—	16.6	16.6
Unrealized loss from hedge accounting	—	—	—	—	—	—	(0.6)	(0.6)
Reclassification of hedge accounting loss to net income	—	—	—	—	—	—	6.0	6.0
Impact of adoption of Topic 326	—	—	—	—	—	0.5	—	0.5
Balance as of December 31, 2020	141.9	$ 1.4	—	$ —	$ 3,204.9	$ (1,813.4)	$ (95.8)	$ 1,297.1

The accompanying notes are an integral part of the Consolidated Financial Statements.

CDW CORPORATION AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
(dollars in millions)

	Year Ended December 31,		
	2020	2019	2018
Cash flows from operating activities:			
Net income	$ 788.5	$ 736.8	$ 643.0
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	425.6	267.1	265.6
Equity-based compensation expense	42.5	48.5	40.7
Deferred income taxes	(20.2)	(87.9)	(56.1)
Provision for credit losses	30.9	0.8	0.9
Other	42.1	28.2	10.0
Changes in assets and liabilities:			
Accounts receivable	(226.4)	(244.8)	(365.1)
Merchandise inventory	(71.4)	(153.0)	(46.8)
Other assets	18.6	(10.9)	25.2
Accounts payable-trade	253.7	194.1	271.2
Other liabilities	30.4	248.3	117.3
Net cash provided by operating activities	1,314.3	1,027.2	905.9
Cash flows used in investing activities:			
Capital expenditures	(158.0)	(236.3)	(86.1)
Acquisition of businesses, net of cash acquired	(43.0)	(95.1)	—
Net cash used in investing activities	(201.0)	(331.4)	(86.1)
Cash flows from financing activities:			
Proceeds from borrowings under revolving credit facilities	1,024.0	2,445.5	686.7
Repayments of borrowings under revolving credit facilities	(1,075.0)	(2,394.5)	(686.7)
Proceeds from issuance of long-term debt	1,300.0	600.0	—
Payments to extinguish long-term debt	(622.5)	(539.0)	—
Net change in accounts payable-inventory financing	93.0	(1.3)	(67.4)
Repurchases of common stock	(340.6)	(657.2)	(522.3)
Payment of incentive compensation plan withholding taxes	(22.5)	(21.4)	(33.9)
Dividend payments	(219.6)	(183.4)	(139.4)
Other	2.0	1.5	8.2
Net cash provided by (used in) financing activities	138.8	(749.8)	(754.8)
Effect of exchange rate changes on cash and cash equivalents	4.1	2.2	(3.4)
Net increase (decrease) in cash and cash equivalents	1,256.2	(51.8)	61.6
Cash and cash equivalents – beginning of period	154.0	205.8	144.2
Cash and cash equivalents – end of period	$ 1,410.2	$ 154.0	$ 205.8
Supplementary disclosure of cash flow information:			
Interest paid	$ (139.4)	$ (154.2)	$ (148.8)
Income taxes paid, net	$ (245.6)	$ (272.2)	$ (261.2)

The accompanying notes are an integral part of the Consolidated Financial Statements.

1. **Description of Business and Summary of Significant Accounting Policies**

Description of Business

CDW Corporation ("Parent"), a Fortune 500 company and member of the S&P 500 Index, is a leading multi-brand provider of information technology ("IT") solutions to small, medium and large business, government, education and healthcare customers in the United States ("US"), the United Kingdom ("UK") and Canada. The Company's broad array of offerings ranges from discrete hardware and software products to integrated IT solutions and services that include on-premise, hybrid and cloud capabilities across data center and networking, digital workspace, security and virtualization.

Throughout this report, the terms "the Company" and "CDW" refer to Parent and its 100% owned subsidiaries.

Parent has two 100% owned subsidiaries, CDW LLC and CDW Finance Corporation. CDW LLC is an Illinois limited liability company that, together with its 100% owned subsidiaries, holds all material assets and conducts all business activities and operations of the Company. CDW Finance Corporation is a Delaware corporation formed for the sole purpose of acting as co-issuer of certain debt obligations and does not hold any material assets or engage in any business activities or operations.

Basis of Presentation

The Consolidated Financial Statements have been prepared in conformity with accounting principles generally accepted in the United States of America ("US GAAP") and the rules and regulations of the US Securities and Exchange Commission ("SEC").

Reclassifications

Certain prior period amounts have been reclassified to conform with current period presentation.

Principles of Consolidation

The Consolidated Financial Statements include the accounts of Parent and its 100% owned subsidiaries. All intercompany transactions and accounts are eliminated in consolidation.

Use of Estimates

The preparation of the Consolidated Financial Statements in accordance with US GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities as of the date of the Consolidated Financial Statements and the reported amounts of revenue and expenses during the reported periods. The Company bases its estimates on historical experience and on various other assumptions that management believes are reasonable under the circumstances including management's current assumptions with respect to implications of the novel coronavirus ("COVID-19") pandemic, the results of which form the basis for making judgments about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results and outcomes could differ from those estimates.

Except as noted within Note 2 (Recent Accounting Pronouncements) for the adoption of Accounting Standards Update ("ASU") 2016-13, Financial Instruments - Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments ("Topic 326"), there have been no changes to the Company's significant accounting policies and estimates during the year ended December 31, 2020.

Business Combinations

The Company accounts for business combinations using the acquisition method of accounting, which allocates the fair value of the purchase consideration to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. The excess of the purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, management makes significant estimates and assumptions. The Company may utilize third-party valuation specialists to assist the Company in the allocation. Initial purchase price allocations are subject to revision within the measurement period, not to exceed one year from the date of acquisition. Acquisition-related expenses and transaction costs associated with business combinations are expensed as incurred.

Cash and Cash Equivalents

Cash and cash equivalents include deposits in banks and short-term (original maturities of three months or less at the time of purchase), highly liquid investments that are readily convertible to known amounts of cash and are so near maturity that there is insignificant risk of changes in value due to interest rate changes.

Accounts Receivable

Trade accounts receivable are recorded at the invoiced amount and typically do not bear interest. The Company estimates an allowance for credit losses related to accounts receivable for future expected credit losses by using relevant information such as historical information, current conditions, and reasonable and supportable forecasts. The allowance is measured on a pool basis when similar risk characteristics exist, and a loss-rate for each pool is determined using historical credit loss experience as the basis for the estimation of expected credit losses. Adjustments to historical loss information are made for differences in current conditions as well as changes in forecasted macroeconomic conditions, such as changes in the unemployment rate or gross domestic product growth rate. The Company has typically observed a higher loss-rate experience with customers in pools associated with the Company's Corporate and Small Business segments, as compared to the pools associated with the Public segment.

Merchandise Inventory

Inventory is valued at the lower of cost and net realizable value. Cost is determined using a weighted-average cost method. Price protection is recorded when earned as a reduction to the cost of inventory. The Company decreases the value of inventory for estimated obsolescence equal to the difference between the cost of inventory and the net realizable value, based upon an aging analysis of the inventory on hand, specifically known inventory-related risks and assumptions about future demand and market conditions.

Miscellaneous Receivables

Miscellaneous receivables primarily consist of amounts due from vendors. The Company receives incentives from vendors related to cooperative advertising, volume rebates, bid programs, price protection and other programs. These incentives generally relate to written vendor agreements with specified performance requirements and are recorded as adjustments to Cost of sales or Merchandise inventory, depending on the nature of the incentive.

Property and Equipment

Property and equipment are stated at cost, less accumulated depreciation. The Company calculates depreciation expense using the straight-line method over the estimated useful lives of the assets. For revenue generating assets, the Company calculates depreciation expense using the straight-line method to the estimated residual value over the estimated useful life of the assets. Property and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying amount may not be recoverable. Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recorded for the excess of the asset's carrying amount over its fair value. Leasehold improvements are amortized over the shorter of their estimated useful lives or the remaining lease term. Expenditures for major renewals and improvements that extend the useful life of property and equipment are capitalized. Expenditures for maintenance and repairs are charged to expense as incurred.

Leases

The Company enters into operating lease contracts, as assessed at contract inception, primarily for real estate, data centers and equipment. On the lease commencement date, the Company records operating lease liabilities based on the present value of the future lease payments. In determining the present value of future lease payments, the Company uses its incremental borrowing rate based on the information available at the commencement date. For real estate and data center contracts, the Company accounts for the lease and non-lease components as a single lease component. For certain equipment leases, the Company applies a portfolio approach to account for the right-of-use asset and operating lease liability. In assessing the lease term, the Company includes options to renew only when it is reasonably certain that it will be exercised; a determination which is at the sole discretion of the Company. For leases with an initial term of 12 months or less, the Company has elected to not record a right-of-use asset and lease liability. For equipment leases used in revenue generating activities, the Company records a right-of-use asset and lease liability for leases with a term of 12 months or less. The Company records lease expense on a straight-line basis over the lease term beginning on the commencement date.

Goodwill

The Company performs an evaluation of goodwill, utilizing either a qualitative or quantitative impairment test. A qualitative assessment is performed at least on an annual basis to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. The Company performs a quantitative impairment test for each reporting unit every three years, or more frequently if circumstances indicate a potential impairment. The annual test for impairment is conducted as of December 1. The Company's reporting units included in the assessment of potential goodwill impairment are the same as its operating segments. Goodwill is not amortized but is subject to periodic testing for impairment at the reporting unit level.

Under a qualitative assessment, the most recent quantitative assessment is used to determine if it is more likely than not that the reporting unit's goodwill is impaired. As part of this qualitative assessment, the Company assesses relevant events and circumstances including macroeconomic conditions, industry and market conditions, cost factors, overall financial performance, changes in share price and entity-specific events to determine if there is an indication of impairment.

Under a quantitative assessment, goodwill impairment is identified by comparing the fair value of a reporting unit to its carrying amount, including goodwill. If the carrying amount of a reporting unit exceeds its fair value, goodwill is considered impaired and an impairment charge is recognized in an amount equal to that excess, not to exceed the carrying amount of goodwill. Fair value of a reporting unit is determined by using a weighted combination of an income approach (75%) and a market approach (25%), as this combination is considered the most indicative of the Company's fair value in an orderly transaction between market participants.

Under the income approach, the Company determines fair value based on estimated future cash flows of a reporting unit, discounted by an estimated weighted-average cost of capital, which reflects the overall level of inherent risk of a reporting unit and the rate of return an outside investor would expect to earn. The estimated future cash flows of each reporting unit are based on internally generated forecasts for the remainder of the respective reporting period and the next five years.

Under the market approach, the Company utilizes valuation multiples derived from publicly available information for guideline companies to provide an indication of how much a knowledgeable investor in the marketplace would be willing to pay for a company. The valuation multiples are applied to the reporting units.

Determining the fair value of a reporting unit is judgmental in nature and requires the use of significant estimates and assumptions, including Net sales growth rates, gross profit margins, operating margins, discount rates and future market conditions, among others. Any changes in the judgments, estimates or assumptions used could produce significantly different results.

Intangible Assets

Intangible assets with determinable lives are amortized on a straight-line basis over their respective estimated useful lives. The cost of computer software developed or obtained for internal use is capitalized and amortized on a straight-line basis over the estimated useful life of the software. Intangible assets are reviewed for impairment when events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recorded for the excess of the asset's carrying amount over its fair value. In addition, each quarter, the Company evaluates whether events and circumstances warrant a revision to the remaining estimated useful life of each of these intangible assets. If the Company were to determine that a change to the remaining estimated useful life of an intangible asset was necessary, then the remaining carrying amount of the intangible asset would be amortized prospectively over that revised remaining useful life.

Deferred Financing Costs

Deferred financing costs, such as underwriting, financial advisory, professional fees and other similar fees are capitalized and recognized in Interest expense, net over the estimated life of the related debt instrument using the effective interest method or straight-line method, as applicable. The Company classifies deferred financing costs as a direct deduction from the carrying value of the Long-term debt liability on the Consolidated Balance Sheets, except for deferred financing costs associated with revolving credit facilities which are presented as an asset, within Other assets on the Consolidated Balance Sheets.

Derivative Instruments

The Company has interest rate cap agreements for the purpose of hedging its exposure to fluctuations in interest rates. The interest rate cap agreements are designated as cash flow hedges of interest rate risk and recorded at fair value in Other assets on the Consolidated Balance Sheets. Changes in fair value of the derivative instruments, along with the change in the fair value of the hedged item, are reported as a component of Accumulated other comprehensive loss until reclassified to Interest expense, net in the same period the hedge transaction affects earnings.

Fair Value Measurements

Fair value is defined under US GAAP as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. A fair value hierarchy has been established for valuation inputs to prioritize the inputs into three levels based on the extent to which inputs used in measuring fair value are observable in the market. Each fair value measurement is reported in one of the three levels which is determined by the lowest level input that is significant to the fair value measurement in its entirety. These levels are:

Level 1 – observable inputs such as quoted prices for identical instruments traded in active markets.

Level 2 – inputs are based on quoted prices for similar instruments in active markets, quoted prices for identical or similar instruments in markets that are not active and model-based valuation techniques for which all significant assumptions are observable in the market or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 – inputs are generally unobservable and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability. The fair values are therefore determined using model-based techniques that include option pricing models, discounted cash flow models and similar techniques.

Revenue Recognition

The Company is a primary distribution channel for a large group of vendors and suppliers, including original equipment manufacturers ("OEMs"), software publishers and wholesale distributors.

The Company accounts for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are established, the contract has commercial substance and collectability of consideration is probable. The Company evaluates the following indicators amongst others when determining whether it is acting as a principal in the transaction and recording revenue on a gross basis: (i) the Company is primarily responsible for fulfilling the promise to provide the specified goods or service, (ii) the Company has inventory risk before the specified good or service has been transferred to a customer or after transfer of control to the customer and (iii) the Company has discretion in establishing the price for the specified good or service. If the terms of a transaction do not indicate the Company is acting as a principal in the transaction, then the Company is acting as an agent in the transaction and the associated revenues are recognized on a net basis.

The Company recognizes revenue once control has passed to the customer. The following indicators are evaluated in determining when control has passed to the customer: (i) the Company has a right to payment for the product or service, (ii) the customer has legal title to the product, (iii) the Company has transferred physical possession of the product to the customer, (iv) the customer has the significant risk and rewards of ownership of the product and (v) the customer has accepted the product. The Company's products can be delivered to customers in a variety of ways, including (i) as physical product shipped from the Company's warehouse, (ii) via drop-shipment by the vendor or supplier or (iii) via electronic delivery of keys for software licenses. The Company's shipping terms typically allow for the Company to recognize revenue when the product reaches the customer's location.

The Company leverages drop-shipment arrangements with many of its vendors and suppliers to deliver products to its customers without having to physically hold the inventory at its warehouses. The Company is the principal in the transaction and recognizes revenue for drop-shipment arrangements on a gross basis.

Revenue Recognition for Hardware

Revenues from sales of hardware products are recognized on a gross basis as the Company is acting as a principal in these transactions, with the selling price to the customer recorded as Net sales and the acquisition cost of the product recorded as Cost of sales. The Company recognizes revenue from these transactions when control has passed to the customer, which is usually upon delivery of the product to the customer.

In some instances, the customer agrees to buy the product from the Company but requests delivery at a later date, commonly known as bill-and-hold arrangements. For these transactions, the Company deems that control passes to the customer when the product is ready for delivery. The Company views products ready for delivery when the customer has a signed agreement, significant risk and rewards for the products, the ability to direct the assets, the products have been set aside specifically for the customer, cannot be redirected to another customer and for customer orders that include configuration services, when such services have been completed.

The Company's vendor partners warrant most of the products the Company sells. These manufacturer warranties are assurance-type warranties and are not considered separate performance obligations. The warranties are not sold separately and only provide assurance that products will conform with the manufacturer's specifications. In some transactions, a third party will provide the customer with an extended warranty. These extended warranties are sold separately and provide the customer with a service in addition to assurance that the product will function as expected. The Company considers these warranties to be separate performance obligations from the underlying product. For extended warranties, the Company is arranging for those services to be provided by the third party and therefore is acting as an agent in the transaction and records revenue on a net basis at the point of sale.

The Company sells cloud computing solutions which include Infrastructure as a Service ("IaaS"). IaaS solutions utilize third-party partners to enable customers to access data center functionality in a cloud-based solution, including storage, computing and networking. The Company recognizes revenue for cloud computing solutions for arrangements with one-time invoicing to the customer at the time of invoice on a net basis as the Company is acting as an agent in the transaction. For monthly subscription-based arrangements, the Company is acting as an agent in the transaction and recognizes revenue as it invoices the customer for its monthly usage on a net basis.

Revenue Recognition for Software

Revenues from most software license sales are recognized as a single performance obligation on a gross basis as the Company is acting as a principal in these transactions at the point the software license is delivered to the customer. Generally, software licenses are sold with accompanying third-party delivered software assurance, which is a product that allows customers to upgrade, at no additional cost, to the latest technology if new capabilities are introduced during the period that the software assurance is in effect. The Company evaluates whether the software assurance is a separate performance obligation by assessing if the third-party delivered software assurance is critical or essential to the core functionality of the software itself. This involves considering if the software provides its original intended functionality to the customer without the updates, if the customer would ascribe a higher value to the upgrades versus the up-front deliverable, if the customer would expect frequent intelligence updates to the software (such as updates that maintain the original functionality), and if the customer chooses to not delay or always install upgrades. If the Company determines that the accompanying third-party delivered software assurance is critical or essential to the core functionality of the software license, the software license and the accompanying third-party delivered software assurance are recognized as a single performance obligation. The value of the product is primarily the accompanying support delivered by a third party and therefore the Company is acting as an agent in these transactions and recognizes them on a net basis at the point the associated software license is delivered to the customer. For software licenses where the accompanying third-party delivered software assurance is not critical or essential to the core functionality, the software assurance is recognized as a separate performance obligation, with the associated revenue recognized on a net basis at the point the related software license is delivered to the customer. For additional information regarding the accounting for bundled arrangements, see "Revenue Recognition for Bundled Arrangements" below.

The Company sells cloud computing solutions which include Software as a Service ("SaaS"). SaaS solutions utilize third-party partners to offer the Company's customers access to software in the cloud that enhances office productivity, provides security or assists in collaboration. The Company recognizes revenue for cloud computing solutions for arrangements with one-time invoicing to the customer at the time of invoice on a net basis as the Company is acting as an agent in the transaction. For monthly subscription-based arrangements, the Company is acting as an agent in the transaction and recognizes revenue as it invoices the customer for its monthly usage on a net basis.

The Company's customers are offered the opportunity by certain of its vendors to purchase software licenses and software assurance under enterprise agreements ("EAs"). For most EA transactions, the Company's obligation to the customer is that of a distributor or sales agent of the services, where all obligations for providing the services to customers are passed to the Company's vendors. The Company's performance obligations are satisfied at the time of the sale. In other EA transactions, the Company is responsible for fulfilling the promised services to the customer and providing remedy or refund for work if the customer is not satisfied with the delivered services, has inventory risk in the arrangement and has full control to set the price for the customer. With most EAs, the Company's vendors will transfer the license and invoice the customer directly, paying resellers an agency fee or commission on these sales. The Company records these fees as a component of Net sales as earned and there is no corresponding Cost of sales amount.

Revenue Recognition for Services

The Company provides professional services, which include project managers and consultants recommending, designing and implementing IT solutions. Revenue from professional services is recognized either on a time and materials basis or proportionally as costs are incurred for fixed fee project work. Revenue is recognized on a gross basis each month as work is performed and the Company transfers those services.

Revenues from the sale of data center services, such as managed and remote managed services, server co-location, internet connectivity and data backup and storage provided by the Company, are recognized over the period the service is provided. Most hosting and managed service obligations are based on the quantity and pricing parameters established in the agreement. As the customer receives the benefit of the service each month, the Company recognizes the respective revenue on a gross basis as the Company is acting as a principal in the transaction. Additionally, the Company's managed services team provides project support to customers that are billed on a fixed fee basis. The Company is acting as the principal in the transaction and recognizes revenue on a gross basis based on the total number of hours incurred for the period over the total expected hours for the project. Total expected hours to complete the project is updated for each period and best represents the transfer of control of the service to the customer.

Revenue Recognition for Bundled Arrangements

The Company also sells some of its products and services as part of bundled contract arrangements containing multiple deliverables, which may include a combination of products and services. For each deliverable that represents a distinct performance obligation, total arrangement consideration is allocated based upon the standalone selling prices of each performance obligation.

Sales In-Transit

The Company performs an analysis of the estimated number of days of sales in-transit to customers at the end of each reporting period based on a weighted-average analysis of commercial delivery terms that include drop-shipment arrangements. This analysis is the basis upon which the Company estimates the amount of Net sales in-transit at the end of the period and adjusts revenue and the related costs to reflect only what has been delivered to the customer. Changes in delivery patterns may result in a different number of business days estimated to make this adjustment.

Freight Costs

The Company records freight billed to its customers as Net sales and the related freight costs as Cost of sales when the underlying product revenue is recognized. For freight not billed to its customers, the Company records the freight costs as Cost of sales. The Company's typical shipping terms result in shipping being performed before the customer obtains control of the product. The Company considers shipping to be a fulfillment activity and not a separate performance obligation.

Other

The nature of the Company's contracts give rise to variable consideration in the form of volume rebates and sales returns and allowances, which are estimated at contract inception. The Company estimates variable consideration at the most likely amount to which it is expected to be entitled. This estimated amount is included in the transaction price to the extent it is probable that a significant reversal of cumulative revenue recognized will not occur when the uncertainty associated with the variable consideration is resolved. The estimates of variable consideration and determination of whether to include estimated amounts in the transaction price are based on an assessment of the Company's anticipated performance and all information that is reasonably available. At the time of sale, the Company records a liability for estimated sales returns and allowances and an associated right of return asset. The Company also records a provision for volume rebates based on the evaluation of contract terms and historical experience.

The Company excludes amounts collected on behalf of third-parties, such as sales taxes, when determining the transaction price.

When a contract results in revenue being recognized in excess of the amount the Company has the right to invoice to the customer, a contract asset is recorded on the Consolidated Balance Sheets. Contract assets are comprised primarily of professional services with fixed fee arrangements.

Contract liabilities consist of payments received from customers, or such consideration that is contractually due, in advance of providing the product or performing services. Contract liabilities are comprised primarily of professional services with fixed fee arrangements, bill-and-hold transactions where control has not passed to the customer and certain governmental contracts.

Trade accounts receivable are recorded at the point of sale (or in accordance with the Statement of Work for services) for the total amount payable by the customer to the Company for sale of goods. Taxes to be collected from the customer as part of the sale are included in Accounts receivable.

Any incremental direct costs of obtaining a contract, primarily sales commissions, are deferred on the Consolidated Balance Sheets and amortized over the period of contract performance.

The Company typically does not enter into long-term contracts. The Company has elected to use the practical expedient for its performance obligations table to include only those contracts that are longer than 12 months at the time of contract inception and those contracts that are non-cancelable. Additionally, for certain governmental contracts where there are annual renewals, the Company has excluded these contracts since there is only a one-year legal obligation. Typically, the only contracts that are longer than 12 months in duration are related to the Company's managed services business.

The Company requests payments for its products and services at the point of sale. The Company generally does not enter into any long-term financing arrangements or payment plans with customers or contracts with customers that have non-cash consideration.

Sales Taxes

Sales tax amounts collected from customers for remittance to governmental authorities are presented on a net basis in the Consolidated Statements of Operations.

Advertising

Advertising costs are generally charged to expense in the period incurred and are recorded in Selling and administrative expenses in the Consolidated Statements of Operations. Cooperative reimbursements from vendors are recorded in the period the related advertising expenditure is incurred. The Company classifies vendor consideration as a reduction to Cost of sales. During the years ended December 31, 2020, 2019 and 2018, the Company had advertising costs of $191 million, $193 million and $183 million, respectively.

Equity-Based Compensation

The Company measures all equity-based payments using a fair-value-based method and records compensation expense over the requisite service period using the straight-line method in its Consolidated Financial Statements. The expense calculation includes estimated forfeiture rates, which have been developed based upon historical experience.

Interest Expense

Interest expense is recognized in the period incurred at the applicable interest rate in effect.

Foreign Currency Translation

The Company's functional currency is the US dollar. The functional currency of the Company's international operating subsidiaries is generally the same as the corresponding local currency. Assets and liabilities of the international operating subsidiaries are translated at the spot rate in effect at the applicable reporting date. Revenues and expenses of the international operating subsidiaries are translated at the average exchange rates in effect during the applicable period. The resulting foreign currency translation adjustment is recorded as Accumulated other comprehensive loss, which is reflected as a separate component of Stockholders' equity.

Income Taxes

Deferred income taxes are provided to reflect the differences between the tax bases of assets and liabilities and their reported amounts in the Consolidated Financial Statements using enacted tax rates in effect for the year in which the differences are expected to reverse. The Company performs an evaluation of the realizability of deferred tax assets on a quarterly basis. This evaluation requires management to make use of estimates and assumptions and considers all positive and negative evidence and factors, such as the scheduled reversal of temporary differences, the mix of earnings in the jurisdictions in which the Company operates, and prudent and feasible tax planning strategies.

The Company accounts for unrecognized tax benefits based upon its assessment of whether a tax benefit is more likely than not to be sustained upon examination by tax authorities. The Company reports a liability for unrecognized tax benefits resulting from unrecognized tax benefits taken or expected to be taken in a tax return and recognizes interest and penalties, if any, related to its unrecognized tax benefits in income tax expense.

2. Recent Accounting Pronouncements

Accounting for Income Taxes

In December 2019, the Financial Accounting Standards Board ("FASB") issued ASU 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("Topic 740"). This ASU simplifies various areas related to the accounting for income taxes by removing certain exceptions to the general principles and by amending the existing guidance in order to improve consistency in application. This ASU is effective for the Company beginning in the first quarter of 2021 and allows for early adoption.

On January 1, 2021, the Company adopted the updated Topic 740 in accordance with the applicable transition methods. Among the various updates, the Company adopted the accounting for ownership changes when transitioning from equity method to consolidation on a modified retrospective basis, which resulted in a $19 million adjustment to retained earnings as of January 1, 2021 for the cumulative effect of derecognizing the deferred tax liability related to the UK acquisition. For additional information regarding the deferred tax liability previously recognized for the UK acquisition, see Note 11 (Income Taxes). The remaining components of the updated Topic 740 did not have an impact to the Company’s Consolidated Financial Statements.

Reference Rate Reform

In March 2020, the FASB issued ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting. Topic 848 temporarily provides optional expedients and exceptions for applying existing guidance to contract modifications, hedging relationships and other transactions that are expected to be affected by reference rate reform. Topic 848 was effective upon issuance and will remain in effect for all contract modifications and hedging relationships entered into through December 31, 2022. The adoption of Topic 848, along with the related expedients, did not have an impact to the Company’s Consolidated Financial Statements.

Measurement of Credit Losses on Financial Instruments

On January 1, 2020, the Company adopted and applied Topic 326 using the modified retrospective approach. Topic 326 introduced a forward-looking approach based on expected losses to estimate credit losses on certain types of financial instruments, including trade receivables, which is reflected in the Company’s policies. The adoption of Topic

(dollars in millions, except per share data, unless otherwise noted)

326, as well as the adjustment to retained earnings for the cumulative effect, was not significant to the Company's Consolidated Financial Statements.

3. Acquisition

On February 1, 2019, the Company completed the acquisition of all issued and outstanding shares of Scalar Decisions Inc. ("Scalar"), a leading technology solutions provider in Canada, for a total final purchase price of $88 million, of which $13 million is deferred to satisfy potential indemnity obligations and is expected to be paid in the first quarter of 2021. The purchase price allocation is final.

4. Allowance for Credit Losses

The changes in the allowance for credit losses related to accounts receivable were as follows:

	Year Ended December 31, 2020	
Balance as of December 31, 2019	$	7.9
Provision for credit losses		30.9
Write-offs charged against the allowance for credit losses		(10.8)
Other		1.6
Balance as of December 31, 2020	$	29.6

During the year ended December 31, 2020, the Company recognized a provision for credit losses of $31 million to reflect the forecasted credit deterioration primarily due to the COVID-19 pandemic, which considered geographic-specific factors, customer makeup and the overall size of the Company's pools, as well as the impacts experienced to date and the impacts from the last significant economic downturn in 2008-2009. Due to the higher inherent risk in the pools associated with the Company's Corporate and Small Business segments, the overall size of certain pools within the Public segment, and the increased risk with customers based from the UK pool, the majority of the allowance relates to these pools. As the overall impact and duration of the COVID-19 pandemic remains uncertain, the Company's estimates and assumptions may evolve as conditions change.

5. Property and Equipment

Property and equipment consists of the following:

		December 31,			
	Useful Lives (Years)	2020		2019	
Building and leasehold improvements	5 - 25	$	126.8	$	134.2
Computer and data processing equipment	3 - 5		126.5		132.0
Construction in progress	-*		50.8		23.3
Machinery and equipment	5 - 10		43.3		45.4
Land	-*		27.7		27.7
Computer software	3 - 5		22.9		25.1
Furniture and fixtures	5 - 10		21.2		20.5
Revenue generating assets	Up to 1		—		212.0
Property and equipment, gross			419.2		620.2
Less: accumulated depreciation			(243.7)		(257.1)
Property and equipment, net		$	175.5	$	363.1

*Asset is not depreciated.

During 2019, the Company recorded additions of $212 million to revenue generating assets related to the delivery of a mobility solution, which was delivered throughout 2020.

During 2020, 2019 and 2018, the Company recorded disposals of $54 million, $3 million and $25 million, respectively, to remove Property and equipment that were no longer in use.

(dollars in millions, except per share data, unless otherwise noted)

Depreciation expense for the years ended December 31, 2020, 2019, and 2018 was $213 million, $41 million and $42 million, respectively. During 2020, the increased depreciation expense was primarily due to the delivery of a mobility solution.

6. Goodwill and Other Intangible Assets

Goodwill

The changes in goodwill by reportable segment are as follows:

	Corporate	Small Business	Public	Other[1]	Consolidated
Balances as of December 31, 2018[2]	$ 1,074.1	$ 185.9	$ 929.6	$ 273.2	$ 2,462.8
Scalar acquisition[3]	—	—	—	62.0	62.0
Aptris, Inc. acquisition[4]	16.5	—	—	—	16.5
Foreign currency translation	—	—	—	11.7	11.7
Balances as of December 31, 2019[2]	1,090.6	185.9	929.6	346.9	2,553.0
IGNW, Inc. acquisition[5]	33.0	—	—	—	33.0
Foreign currency translation	—	—	—	9.9	9.9
Balances as of December 31, 2020[2]	$ 1,123.6	$ 185.9	$ 929.6	$ 356.8	$ 2,595.9

(1) Other is comprised of CDW UK and CDW Canada reporting units.

(2) Goodwill is net of accumulated impairment losses of $1,571 million, $354 million and $28 million related to the Corporate, Public and Other segments, respectively.

(3) For additional information regarding the addition to goodwill resulting from the Company's acquisition, see Note 3 (Acquisition).

(4) The Company acquired Aptris, Inc. on October 1, 2019.

(5) The Company acquired IGNW, Inc. on July 1, 2020.

December 1, 2020 and 2019 Impairment Analysis

The Company completed its annual impairment analysis as of December 1, 2020 and 2019. For all reporting units, the Company performed a quantitative analysis. Based on the results of the quantitative analysis the Company determined that the fair values of Corporate, Small Business, Public, CDW UK, and CDW Canada reporting units substantially exceeded their carrying values and no impairment existed.

(dollars in millions, except per share data, unless otherwise noted)

Other Intangible Assets

A summary of intangible assets is as follows:

December 31, 2020	Useful Lives (Years)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Customer relationships and contracts	3 - 14	$ 2,131.5	$ (1,927.9)	$ 203.6
Trade name	generally 20	422.8	(280.1)	142.7
Internally developed software	3 - 5	280.6	(186.0)	94.6
Other	1 - 10	9.6	(5.4)	4.2
Total		$ 2,844.5	$ (2,399.4)	$ 445.1
December 31, 2019				
Customer relationships and contracts	3 - 14	$ 2,111.2	$ (1,786.4)	$ 324.8
Trade name	generally 20	422.8	(259.0)	163.8
Internally developed software	3 - 5	263.5	(160.0)	103.5
Other	1 - 10	5.5	(3.5)	2.0
Total		$ 2,803.0	$ (2,208.9)	$ 594.1

During the years ended December 31, 2020, 2019 and 2018, the Company recorded disposals of $25 million, $11 million and $26 million, respectively, to remove fully amortized intangible assets that were no longer in use.

During the years ended December 31, 2020, 2019 and 2018, the Company recorded amortization expense related to intangible assets of $212 million, $219 million and $223 million, respectively.

Estimated future amortization expense related to intangible assets is as follows:

Years ending December 31,	Estimated Future Amortization Expense
2021	$ 126.4
2022	77.1
2023	57.5
2024	43.0
2025	42.9
Thereafter	98.2
Total future amortization expense	$ 445.1

(dollars in millions, except per share data, unless otherwise noted)

7. Inventory Financing Agreements

The Company has entered into agreements with certain financial intermediaries to facilitate the purchase of inventory from various suppliers under certain terms and conditions, as described below. These amounts are classified separately as Accounts payable-inventory financing on the Consolidated Balance Sheets. The Company does not incur any interest expense associated with these agreements as balances are paid when they are due.

Amounts included in accounts payable-inventory financing are as follows:

	December 31, 2020	December 31, 2019
Revolving Loan inventory financing agreement[(1)]	$ 470.1	$ 379.1
Other inventory financing agreements	54.5	50.8
Accounts payable-inventory financing	$ 524.6	$ 429.9

(1) The senior secured asset-based revolving credit facility includes an inventory floorplan sub-facility that enables the Company to maintain an inventory financing agreement with a financial intermediary to facilitate the purchase of inventory from certain vendors on more favorable terms than offered directly by the vendors.

8. Contract Liabilities and Remaining Performance Obligations

The Company's contract liabilities consist of payments received from customers, or such consideration that is contractually due, in advance of providing the product or performing services. The Company's contract liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period. As of December 31, 2020 and December 31, 2019, the contract liability balance was $244 million and $252 million, respectively. For the years ended December 31, 2020, 2019 and 2018, the Company recognized revenue of $203 million, $136 million, and $123 million, respectively, related to its contract liabilities.

A contract's transaction price is allocated to each distinct performance obligation and recognized as revenue when, or as, the performance obligation is satisfied. For additional information regarding the Company's performance obligations, see Note 1 (Description of Business and Summary of Significant Accounting Policies). The following table represents the total transaction price for the remaining performance obligations as of December 31, 2020 related to non-cancelable contracts longer than 12 months in duration that is expected to be recognized over future periods.

	Within 1 Year	Years 1-2	Years 2-3	Thereafter
Remaining performance obligations	$ 38.2	$ 24.9	$ 8.5	$ 0.3

9. Financial Instruments

The Company's indebtedness creates interest rate risk on its variable-rate debt. The Company uses derivative financial instruments to manage its exposure to interest rate risk. The Company does not hold or issue derivative financial instruments for trading or speculative purposes.

The Company has interest rate cap agreements that entitle it to payments from the counterparty of the amount, if any, by which three-month London Interbank Offered Rate ("LIBOR") exceeds the strike rates of the caps during the agreement period in exchange for an upfront premium. During 2020, the Company did not enter into new interest rate cap agreements.

As of December 31, 2020 and December 31, 2019, the Company had interest rate cap agreements with a fair value of less than $1 million which were classified within Other assets on the Consolidated Balance Sheets. The total notional value of the interest rate cap agreements was $1.4 billion and $2.8 billion as of December 31, 2020 and December 31, 2019, respectively, of which $1.4 billion matured at December 31, 2020 and $1.4 billion will mature at December 31, 2022.

The fair value of the Company's interest rate cap agreements is classified as Level 2 in the fair value hierarchy. The valuation of the interest rate cap agreements is derived by using a discounted cash flow analysis on the expected cash receipts that would occur if variable interest rates rise above the strike rates of the caps. This analysis reflects the contractual terms of the interest rate cap agreements, including the period to maturity, and uses observable market-based inputs, including LIBOR curves and implied volatilities. The Company also incorporates insignificant credit valuation adjustments to appropriately reflect the respective counterparty's nonperformance risk in the fair value measurements. The counterparty credit spreads are based on publicly available credit information obtained from a third-party credit data provider. For additional information, see Note 10 (Long-Term Debt).

(dollars in millions, except per share data, unless otherwise noted)

The interest rate cap agreements are designated as cash flow hedges. The changes in the fair value of derivatives that qualify as cash flow hedges are recorded in Accumulated other comprehensive loss ("AOCL") and are subsequently reclassified into Interest expense in the period when the hedged forecasted transaction affects earnings. The following tables provide the activity in AOCL, net of tax, for the years ended December 31, 2020, 2019 and 2018.

	Year Ended December 31, 2020	2019	2018
Change in fair value recorded to AOCL	$ (0.6)	$ (11.3)	$ (5.9)
Reclassification from AOCL to Interest expense, net	$ 6.0	$ 1.7	$ 3.9

The Company expects to reclassify $3 million from Accumulated other comprehensive loss into Interest expense, net during the next 12 months.

10. Long-Term Debt

	Maturity Date	As of December 31, 2020 Interest Rate	As of December 31, 2020 Amount	As of December 31, 2019 Interest Rate	As of December 31, 2019 Amount
Credit Facilities					
CDW UK revolving credit facility(1)	July 2021	— %	$ —	— %	$ —
Senior secured asset-based revolving credit facility	March 2022	— %	—	5.000 %	51.0
Total credit facilities			—		51.0
Term Loans					
CDW UK term loan(1)	August 2021	1.445 %	56.0	2.190 %	61.0
Senior secured term loan facility	October 2026	1.900 %	1,423.4	3.550 %	1,438.3
Total term loans			1,479.4		1,499.3
Unsecured Senior Notes					
Senior notes due 2024	December 2024	5.500 %	575.0	5.500 %	575.0
Senior notes due 2025	May 2025	4.125 %	600.0	— %	—
Senior notes due 2025	September 2025	— %	—	5.000 %	600.0
Senior notes due 2028	April 2028	4.250 %	600.0	4.250 %	600.0
Senior notes due 2029	February 2029	3.250 %	700.0	— %	—
Total unsecured senior notes			2,475.0		1,775.0
Other long-term obligations			—		12.6
Unamortized deferred financing fees			(27.2)		(20.6)
Current maturities of long-term debt			(70.9)		(34.1)
Total long-term debt			$ 3,856.3		$ 3,283.2

(1) British pound-denominated debt facilities.

As of December 31, 2020, the Company is in compliance with the covenants under the various credit agreements and indentures.

Credit Facilities

The Company has a variable rate CDW UK revolving credit facility that is denominated in British pounds. As of December 31, 2020, the Company could have borrowed up to an additional £50 million ($68 million) under the CDW UK revolving credit facility.

The Company also has a variable rate senior secured asset-based revolving credit facility (the "Revolving Loan") that is denominated in US dollars. The Revolving Loan is used by the Company for borrowings, issuances of letters of credit and floorplan financing. As of December 31, 2020, the Revolving Loan has less than $1 million of undrawn letters of credit, $459 million reserved for the floorplan sub-facility and a borrowing base of $2.2 billion, which is based on the amount of eligible inventory and accounts receivable balances as of November 30, 2020. As of December 31, 2020, the Company could have borrowed up to an additional $1.0 billion under the Revolving Loan.

The Revolving Loan is collateralized by a first priority interest in inventory (excluding inventory to the extent collateralized under the inventory financing arrangements as described in Note 7 (Inventory Financing Agreements)), deposits, and accounts receivable, and by a second priority interest in substantially all other US assets.

Term Loans

The CDW UK term loan has a variable interest rate with the remaining principal amount due at the maturity date. The CDW UK term loan agreement imposes restrictions on CDW UK's ability to transfer funds to the Company through the payment of dividends, repayment of intercompany loans, advances or subordinated debt that require, among other things, the maintenance of a minimum net leverage ratio. As of December 31, 2020, the amount of restricted payment capacity under the CDW UK term loan was £159 million ($218 million).

The senior secured term loan facility (the "Term Loan") has a variable interest rate, which has effectively been capped through the use of interest rate caps (see Note 9 (Financial Instruments)). The interest rate disclosed in the table above represents the variable interest rates in effect for December 31, 2020 and 2019, respectively. The Company is required to pay quarterly principal installments of $4 million with the remaining principal amount due at the maturity date. As of December 31, 2020, the amount of CDW's restricted payment capacity under the Term Loan was $2.2 billion.

The Term Loan is collateralized by a second priority interest in substantially all inventory (excluding inventory to the extent collateralized under the inventory financing arrangements as described in Note 7 (Inventory Financing Agreements)), deposits and accounts receivable, and by a first priority interest in substantially all other US assets.

Unsecured Senior Notes

The senior notes have a fixed interest rate, which is paid semi-annually.

Debt Issuance and Extinguishments

On April 21, 2020, the Company completed the issuance of $600 million aggregate principal amount of 4.125% Senior Notes due 2025 at par ("2025 Senior Notes"). The 2025 Senior Notes will mature on May 1, 2025 and bear interest of 4.125% per annum, payable semi-annually on May 1 and November 1 of each year, which had payments commence November 1, 2020.

On August 13, 2020, the Company completed the issuance of $700 million aggregate principal amount of 3.25% Senior Notes due 2029 at par ("2029 Senior Notes"). The 2029 Senior Notes will mature on February 15, 2029 and bear interest of 3.25% per annum, payable semi-annually on February 15 and August 15 of each year, which had payments commence February 15, 2021. The net proceeds from the issuance were primarily used to redeem all of the remaining $600 million aggregate principal amount of the 5.000% Senior Notes due September 2025 at a redemption price of 103.75% of the principal amount redeemed, plus accrued and unpaid interest to the date of redemption, to pay fees and expenses related to the issuance and redemption, and for general corporate purposes.

On September 26, 2019, the Company completed the issuance of $600 million aggregate principal amount of 4.25% Senior Notes due 2028 ("2028 Senior Notes") at par. The 2028 Senior Notes will mature on April 1, 2028 and bear interest at a rate of 4.25% per annum, payable semi-annually on April 1 and October 1 of each year, which had payments commence on April 1, 2020. The net proceeds from the issuance of the 2028 Senior Notes were primarily used to redeem all of the remaining $525 million aggregate principal amount of the 5.00% Senior Notes due 2023 at a redemption price of 102.5% of the principal amount redeemed, plus accrued and unpaid interest to the date of redemption, and to pay fees and expenses related to the issuance and redemption. The redemption date was October 12, 2019. On the same date, the indenture governing the Senior Notes due 2023 was satisfied and discharged.

(dollars in millions, except per share data, unless otherwise noted)

Total Debt Maturities

A summary of total debt maturities is as follows:

Years ending December 31,	Debt Maturities
2021	$ 70.9
2022	15.0
2023	14.9
2024	589.9
2025	614.9
Thereafter	2,648.8
Total debt maturities	$ 3,954.4

Fair Value

The fair values of the Senior Notes were estimated using quoted market prices for identical liabilities that are traded in over-the-counter secondary markets that are not considered active. The fair value of the Term Loan was estimated using dealer quotes for identical liabilities in markets that are not considered active. The Senior Notes, Term Loan and CDW UK term loan are classified as Level 2 within the fair value hierarchy. The carrying value of the Revolving Loan and CDW UK revolving credit facility approximate fair value if there are outstanding borrowings. The approximate fair values and related carrying values of the Company's long-term debt, including current maturities and excluding unamortized discount and unamortized deferred financing costs, are as follows:

	December 31,	
	2020	2019
Fair value	$ 4,077.9	$ 3,447.5
Carrying value	3,954.4	3,337.9

11. **Income Taxes**

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act ("CARES Act") was enacted into law. The primary impact to the Company’s financial statements as a result of the CARES Act was the deferral of US corporate income tax payments from the second quarter of 2020 to July 2020, as well as the deferral of employer related payroll tax payments from the second, third and fourth quarters of 2020 with 50% to be paid in the fourth quarter of 2021 and the remaining 50% to be paid in the fourth quarter of 2022.

Income before income taxes was taxed under the following jurisdictions:

	Year Ended December 31,		
	2020	2019	2018
Domestic	$ 934.3	$ 854.1	$ 762.3
Foreign	68.0	95.6	78.2
Total	$ 1,002.3	$ 949.7	$ 840.5

(dollars in millions, except per share data, unless otherwise noted)

Components of Income tax expense (benefit) consist of the following:

	Year Ended December 31,		
	2020	2019	2018
Current:			
Federal	$ 166.5	$ 224.7	$ 192.6
State	49.2	56.1	43.3
Foreign	18.3	20.0	17.7
Total current	234.0	300.8	253.6
Deferred:			
Domestic	(18.8)	(83.0)	(52.7)
Foreign	(1.4)	(4.9)	(3.4)
Total deferred	(20.2)	(87.9)	(56.1)
Income tax expense	$ 213.8	$ 212.9	$ 197.5

The reconciliation between the statutory tax rate expressed as a percentage of income before income taxes and the effective tax rate was as follows:

	Year Ended December 31,					
	2020		2019		2018	
Statutory federal income tax rate	$ 210.5	21.0 %	$ 199.4	21.0 %	$ 176.5	21.0 %
State taxes, net of federal effect	36.0	3.6	35.4	3.7	31.1	3.7
Excess tax benefit of equity awards	(28.8)	(2.9)	(26.8)	(2.8)	(19.7)	(2.3)
Effect of rates different than statutory	(0.8)	(0.1)	0.8	0.1	0.6	0.1
Tax on foreign earnings	1.0	0.1	2.1	0.2	2.8	0.3
Effect of tax law changes	(6.8)	(0.7)	—	—	(1.9)	(0.2)
Other	2.7	0.3	2.0	0.2	8.1	0.9
Effective tax rate	$ 213.8	21.3 %	$ 212.9	22.4 %	$ 197.5	23.5 %

(dollars in millions, except per share data, unless otherwise noted)

The tax effect of temporary differences that give rise to net deferred income tax liabilities is presented below. Reclassifications have been made to conform to current year presentation.

	December 31, 2020	December 31, 2019
Deferred tax assets:		
Contract liabilities	$ 13.2	$ 46.3
Equity compensation plans	20.1	21.1
Net operating loss and credit carryforwards, net	22.9	20.1
Payroll and benefits	21.8	9.6
Operating lease liabilities	47.5	41.0
Accounts receivable	26.0	15.6
Other	15.9	14.1
Total deferred tax assets	167.4	167.8
Deferred tax liabilities:		
Acquisition-related intangibles	76.5	112.2
Property and equipment	39.9	27.0
International investments	19.2	19.2
Operating lease right-of-use assets	32.5	33.7
Other	23.3	17.5
Total deferred tax liabilities	191.4	209.6
Deferred tax asset valuation allowance	16.9	16.8
Net deferred tax liabilities	$ 40.9	$ 58.6

The Company has international income tax net operating losses of $6 million that do not expire and state and international tax credit carryforwards of $23 million, which expire at various dates from 2024 through 2027.

Due to the nature of the CDW UK acquisition, the Company has provided US income taxes of $19 million on the excess of the financial reporting value of the investment over the corresponding tax basis. The Company is indefinitely reinvested in its UK business, and therefore will not provide for any US deferred taxes on the earnings of the UK business. The Company is not permanently reinvested in its Canadian business and therefore has recognized deferred tax liabilities of $1 million as of December 31, 2020 related to Canada withholding taxes on earnings of its Canadian business.

In the ordinary course of business, the Company is subject to review by domestic and foreign taxing authorities, including the Internal Revenue Service ("IRS"). In general, the Company is no longer subject to audit by the IRS or state, local, or foreign taxing authorities for tax years through 2014. Various taxing authorities are in the process of auditing income tax returns of the Company and its subsidiaries. The Company does not anticipate that any adjustments from the audits would have a material impact on its Consolidated Financial Statements.

Changes in the Company's unrecognized tax benefits as of December 31, 2020, 2019 and 2018 were as follows:

	Year Ended December 31, 2020	2019	2018
Balance as of January 1	$ 17.7	$ 15.1	$ —
Additions for tax positions related to current year	0.1	2.6	15.1
Additions for tax positions related to prior year	0.5	—	—
Balance as of December 31	$ 18.3	$ 17.7	$ 15.1

As of December 31, 2020, the Company had $18 million of unrecognized tax benefits that, if recognized, would have decreased income taxes and the corresponding effective income tax rate and increased net income. The impact of recognizing these tax benefits, net of the federal income tax benefit related to unrecognized state income tax benefits, would be approximately $15 million.

(dollars in millions, except per share data, unless otherwise noted)

12. Leases

The Company has operating leases primarily for real estate, data centers and equipment. Lease terms range from 1 year to 16 years.

Supplemental Consolidated Balance Sheets information related to the Company's operating leases is as follows:

Classification on the Consolidated Balance Sheets		December 31, 2020	December 31, 2019
Assets			
	Operating lease right-of-use assets	$ 130.8	$ 131.8
Liabilities			
Current	Accrued expenses and other current liabilities - Other	$ 25.6	$ 30.1
Long-term	Long-term operating lease liabilities	169.0	131.1
Total lease liabilities		$ 194.6	$ 161.2

Lease term and discount rate	December 31, 2020	December 31, 2019
Weighted average remaining lease term (years)	10.3	9.7
Weighted average discount rate	3.98 %	4.78 %

Operating lease expense for the years ended December 31, 2020 and 2019 was $53 million and $93 million, respectively. Prior to the adoption of Topic 842, operating lease expense for the year ended December 31, 2018 was $30 million.

Maturities of operating lease liabilities are as follows:

	December 31, 2020
2021	$ 32.8
2022	26.7
2023	22.5
2024	19.5
2025	18.3
Thereafter	123.4
Total lease payments	$ 243.2
Less: Interest	(48.6)
Present value of lease liabilities	$ 194.6

Supplemental cash flow information related to operating leases is as follows:

	Year Ended December 31, 2020	Year Ended December 31, 2019
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$ 35.8	$ 88.0
Right-of-use assets obtained in exchange for lease obligations		
Operating leases	$ 26.7	$ 110.2

(dollars in millions, except per share data, unless otherwise noted)

13. Stockholders' Equity

Share Repurchase Program

The Company has a share repurchase program under which it may repurchase shares of its common stock in the open market or through privately negotiated other transactions, depending on share price, market conditions and other factors. The share repurchase program does not obligate the Company to repurchase any dollar amount or number of shares, and repurchases may be commenced or suspended from time to time without prior notice.

During 2020, the Company repurchased 2.6 million shares of its common stock for $341 million. These repurchases occurred under the program announced on February 7, 2019, by which the Board of Directors authorized an increase to the Company's share repurchase program by $1.0 billion. As of December 31, 2020, the Company has $338 million remaining under this program.

14. Equity-Based Compensation

Equity-based compensation expense, which is recorded in Selling and administrative expenses in the Consolidated Statements of Operations was as follows:

	Year Ended December 31,		
	2020	2019	2018
Equity-based compensation expense	$ 42.5	$ 48.5	$ 40.7
Income tax benefit(1)	(7.7)	(9.8)	(9.9)
Equity-based compensation expense, net of tax	$ 34.8	$ 38.7	$ 30.8

(1) Represents equity-based compensation tax expense at the statutory tax rates. Excess tax benefits associated with equity awards are excluded from this disclosure and separately disclosed in Note 11 (Income Taxes).

The total unrecognized compensation cost related to non-vested awards was $43 million as of December 31, 2020 and is expected to be recognized over a weighted-average period of 2.0 years.

2013 Long-Term Incentive Plan

The 2013 Long-Term Incentive Plan ("2013 LTIP") provides for the grant of incentive stock options, nonqualified stock options, stock appreciation rights, restricted stock, restricted stock units, bonus stock and performance awards. The maximum aggregate number of shares that may be issued under the 2013 LTIP is 15.5 million shares of the Company's common stock, in addition to the 3.8 million shares of restricted stock granted in exchange for unvested Class B Common Units in connection with the Company's Initial Public Offering ("IPO"). As of December 31, 2020, 2.6 million shares were available for issuance under the 2013 LTIP, which was approved by the Company's pre-IPO shareholders. Authorized but unissued shares are reserved for issuance in connection with equity-based awards.

Stock Options

The exercise price of a stock option granted is equal to the fair value of the underlying stock on the date of the grant. Stock options have a contractual term of ten years and generally vest ratably over three years. To estimate the fair value of options granted, the Company uses the Black-Scholes option pricing model. The weighted-average assumptions used to value the stock options granted were as follows:

	Year Ended December 31,		
	2020	2019	2018
Grant date fair value	$ 20.46	$ 19.26	$ 14.80
Volatility (1)	25.50 %	20.00 %	20.00 %
Risk-free rate (2)	0.51 %	2.53 %	2.75 %
Expected dividend yield	1.52 %	1.23 %	1.14 %
Expected term (in years) (3)	6.0	6.0	6.0

(1) Based upon an assessment of the two-year and five-year historical and implied volatility for the Company's selected peer group, adjusted for the Company's leverage.

(dollars in millions, except per share data, unless otherwise noted)

(2) Based on a composite US Treasury rate.

(3) Calculated using the simplified method, which defines the expected term as the average of the option's contractual term and the option's weighted-average vesting period. The Company utilizes this method as it has limited historical stock option data that is sufficient to derive a reasonable estimate of the expected stock option term.

Stock option activity for the year ended December 31, 2020 was as follows:

Options	Number of Options	Weighted-Average Exercise Price	Weighted-Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding at January 1, 2020	4,138,242	$ 59.39		
Granted	991,431	100.80		
Forfeited/Expired	(44,409)	92.54		
Exercised(1)	(1,119,812)	44.05		
Outstanding at December 31, 2020	3,965,452	$ 73.71	6.48	$ 230.3
Vested and exercisable at December 31, 2020	2,192,951	$ 56.63	4.98	$ 164.8
Expected to vest after December 31, 2020	1,745,547	$ 94.70	8.32	$ 64.7

(1) The total intrinsic value of stock options exercised during the years ended December 31, 2020, 2019 and 2018 was $94 million, $83 million and $47 million, respectively.

Restricted Stock Units ("RSUs")

Restricted stock units represent the right to receive unrestricted shares of the Company's stock at the time of vesting. RSUs generally cliff-vest at the end of three years. The fair value of RSUs is equal to the closing price of the Company's common stock on date of grant.

RSU activity for the year ended December 31, 2020 was as follows:

	Number of Units	Weighted-Average Grant-Date Fair Value
Non-vested at January 1, 2020	209,378	$ 75.56
Granted (1)	66,685	112.55
Vested (2)	(172,691)	68.78
Forfeited	(10,936)	86.16
Non-vested at December 31, 2020	92,436	$ 107.88

(1) The weighted-average grant date fair value of RSUs granted during the years ended December 31, 2020, 2019 and 2018 was $112.55, $103.24 and $73.95, respectively.

(2) The aggregate fair value of RSUs that vested during the years ended December 31, 2020, 2019 and 2018 was $12 million, $4 million and $2 million, respectively.

Performance Share Units ("PSUs")

Performance share units represent the right to receive unrestricted shares of the Company's stock at the time of vesting. PSUs are granted under the 2013 LTIP which cliff-vest at the end of three years. The percentage of PSUs that shall vest will range from 0% to 200% of the number of PSUs granted based on the Company's performance against a cumulative adjusted free cash flow measure and cumulative non-GAAP net income per diluted share measure over a three-year performance period.

(dollars in millions, except per share data, unless otherwise noted)

PSU activity for the year ended December 31, 2020 was as follows:

	Number of Units	Weighted-Average Grant-Date Fair Value
Non-vested at January 1, 2020	381,905	$ 87.78
Granted (1)	253,307	102.96
Attainment Adjustment (2)	166,574	59.00
Vested (3)	(353,245)	68.07
Forfeited	(27,377)	88.98
Non-vested at December 31, 2020	421,164	$ 102.07

(1) The weighted-average grant date fair value of PSUs granted during the years ended December 31, 2020, 2019 and 2018 was $102.96, $101.33 and $73.74, respectively.

(2) During the year ended December 31, 2020, the attainment on PSUs vested at December 31, 2019 was adjusted to reflect actual performance.

(3) The aggregate fair value of PSUs that vested during the years ended December 31, 2020, 2019 and 2018 was $24 million, $18 million and $13 million, respectively.

Equity Awards Granted by Seller of CDW UK

As part of the Company's acquisition of CDW UK in 2015, stock options were granted by one of the sellers of CDW UK to certain CDW UK coworkers. In 2020, there were no outstanding option awards granted by this seller. In 2019 and 2018, 110,978 and 456,613 stock options, respectively, vested and were exercised. The activity was reported as a financing activity in the Consolidated Statement of Cash Flows and as increases to Accumulated Deficit in the Consolidated Statement of Stockholders' Equity for the years ended December 31, 2019 and 2018.

15. Earnings Per Share

The numerator for both basic and diluted earnings per share is Net income. The denominator for basic earnings per share is the weighted-average shares outstanding during the period.

A reconciliation of basic weighted-average shares outstanding to diluted weighted-average shares outstanding is as follows:

	Year Ended December 31,		
	2020	2019	2018
Basic weighted-average shares outstanding	142.6	145.1	150.9
Effect of dilutive securities (1)	2.2	2.7	2.7
Diluted weighted-average shares outstanding (2)	144.8	147.8	153.6

(1) The dilutive effect of outstanding stock options, restricted stock units, performance share units and Coworker Stock Purchase Plan units is reflected in the diluted weighted-average shares outstanding using the treasury stock method.

(2) There were fewer than 0.1 million potential common shares excluded from diluted weighted-average shares outstanding for the years ended December 31, 2020, 2019 and 2018, respectively, as their inclusion would have had an anti-dilutive effect.

16. Coworker Retirement and Other Compensation Benefits

Profit Sharing Plan and Other Savings Plans

The Company has a profit-sharing plan that includes a salary reduction feature established under the Internal Revenue Code Section 401(k) covering substantially all coworkers in the US. In addition, coworkers outside the US participate in other savings plans. Company contributions to the profit sharing and other savings plans are made in cash and determined at the discretion of the Board of Directors. For the years ended December 31, 2020, 2019 and 2018, the amounts expensed for these plans were $28 million, $38 million and $34 million, respectively.

Coworker Stock Purchase Plan

The Company has a Coworker Stock Purchase Plan ("CSPP") that provides the opportunity for eligible coworkers to acquire shares of the Company's common stock at a 5% discount from the closing market price on the final day of the offering period. There is no compensation expense associated with the CSPP.

17. Commitments and Contingencies

The Company is party to various legal proceedings that arise in the ordinary course of its business, which include commercial, intellectual property, employment, tort and other litigation matters. The Company is also subject to audit by federal, state, international, national, provincial and local authorities, and by various partners, group purchasing organizations and customers, including government agencies, relating to purchases and sales under various contracts. In addition, the Company is subject to indemnification claims under various contracts. From time to time, certain customers of the Company file voluntary petitions for reorganization or liquidation under the US bankruptcy laws or similar laws of the jurisdictions for the Company's business activities outside of the US. In such cases, certain pre-petition payments received by the Company could be considered preference items and subject to return to the bankruptcy administrator.

As of December 31, 2020, the Company does not believe that there is a reasonable possibility that any material loss exceeding the amounts already recognized for these proceedings and matters, if any, has been incurred. However, the ultimate resolutions of these proceedings and matters are inherently unpredictable. As such, the Company's consolidated financial statements could be adversely affected in any particular period by the unfavorable resolution of one or more of these proceedings or matters.

18. Segment Information

The Company's segment information reflects the way the Chief Operating Decision Maker uses internal reporting to evaluate business performance, allocate resources and manage operations.

The Company has three reportable segments: Corporate, which is comprised primarily of private sector business customers with more than 250 employees in the US, Small Business, primarily servicing private sector business customers with up to 250 employees in the US, and Public, which is comprised of government agencies and education and healthcare institutions in the US. The Company has two other operating segments: CDW UK and CDW Canada, both of which do not meet the reportable segment quantitative thresholds and, accordingly, are included in an all other category ("Other").

The Company has centralized logistics and headquarters functions that provide services to the segments. The logistics function includes purchasing, distribution and fulfillment services to support the Corporate, Small Business and Public segments. As a result, costs and intercompany charges associated with the logistics function are fully allocated to all of these segments based on a percent of Net sales. The centralized headquarters function provides services in areas such as accounting, information technology, marketing, legal and coworker services. Headquarters function costs that are not allocated to the segments are included under the heading of "Headquarters" in the tables below.

The Company allocates resources to and evaluates performance of its segments based on Net sales, Operating income and Non-GAAP Operating income. However, the Company has concluded that Operating income is the more useful measure in terms of discussion of operating results, as it is a US GAAP measure.

Segment information for Total assets and capital expenditures is not presented, as such information is not used in measuring segment performance or allocating resources between segments.

CDW CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(dollars in millions, except per share data, unless otherwise noted)

Selected Segment Financial Information

Information about the Company's segments for the years ended December 31, 2020, 2019 and 2018 is as follows:

	Corporate	Small Business	Public	Other	Headquarters	Total
2020:						
Net sales	$ 6,846.0	$ 1,397.1	$ 8,137.7	$ 2,086.7	$ —	$ 18,467.5
Operating income (loss)	489.5	99.0	678.2	65.9	(153.4)	1,179.2
Depreciation and amortization expense	(73.2)	(18.3)	(229.7)	(32.5)	(71.9)	(425.6)
2019:						
Net sales	$ 7,499.0	$ 1,510.3	$ 6,864.8	$ 2,158.3	$ —	$ 18,032.4
Operating income (loss)	585.1	107.5	475.0	101.6	(135.6)	1,133.6
Depreciation and amortization expense	(86.9)	(22.5)	(56.3)	(31.2)	(70.2)	(267.1)
2018:						
Net sales	$ 6,842.5	$ 1,359.6	$ 6,154.7	$ 1,883.7	$ —	$ 16,240.5
Operating income (loss)	530.4	94.4	405.0	82.2	(124.7)	987.3
Depreciation and amortization expense	(88.2)	(22.1)	(51.2)	(31.8)	(72.3)	(265.6)

CDW CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(dollars in millions, except per share data, unless otherwise noted)

Geographic Areas and Revenue Mix

	Year Ended December 31, 2020				
	Corporate	Small Business	Public	Other	Total
Geography(1)					
United States	$ 6,823.6	$ 1,397.1	$ 8,137.7	$ 20.8	$ 16,379.2
Rest of World	22.4	—	—	2,065.9	2,088.3
Total Net sales	6,846.0	1,397.1	8,137.7	2,086.7	18,467.5
Major Product and Services					
Hardware	5,289.2	1,156.1	6,844.0	1,544.1	14,833.4
Software	1,088.3	189.3	982.8	320.6	2,581.0
Services	400.8	31.5	269.8	211.8	913.9
Other(2)	67.7	20.2	41.1	10.2	139.2
Total Net sales	6,846.0	1,397.1	8,137.7	2,086.7	18,467.5
Sales by Channel					
Corporate	6,846.0	—	—	—	6,846.0
Small Business	—	1,397.1	—	—	1,397.1
Government	—	—	2,978.5	—	2,978.5
Education	—	—	3,458.1	—	3,458.1
Healthcare	—	—	1,701.1	—	1,701.1
Other	—	—	—	2,086.7	2,086.7
Total Net sales	6,846.0	1,397.1	8,137.7	2,086.7	18,467.5
Timing of Revenue Recognition					
Transferred at a point in time where CDW is principal	6,140.7	1,301.3	7,477.4	1,835.5	16,754.9
Transferred at a point in time where CDW is agent	457.4	84.5	292.5	61.6	896.0
Transferred over time where CDW is principal	247.9	11.3	367.8	189.6	816.6
Total Net sales	$ 6,846.0	$ 1,397.1	$ 8,137.7	$ 2,086.7	$ 18,467.5

(1) Net sales by geography is generally based on the ship-to address with the exception of certain services that may be performed at, or on behalf of, multiple locations. Such service arrangements are categorized based on the bill-to address.

(2) Includes items such as delivery charges to customers.

CDW CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(dollars in millions, except per share data, unless otherwise noted)

	Year Ended December 31, 2019				
	Corporate	Small Business	Public	Other	Total
Geography(1)					
United States	$ 7,485.7	$ 1,510.3	$ 6,864.8	$ 32.5	$ 15,893.3
Rest of World	13.3	—	—	2,125.8	2,139.1
Total Net sales	7,499.0	1,510.3	6,864.8	2,158.3	18,032.4
Major Product and Services(2)					
Hardware	5,963.7	1,264.7	5,624.9	1,628.9	14,482.2
Software	1,069.2	196.0	1,019.6	300.2	2,585.0
Services	395.8	28.5	199.0	217.6	840.9
Other(3)	70.3	21.1	21.3	11.6	124.3
Total Net sales	7,499.0	1,510.3	6,864.8	2,158.3	18,032.4
Sales by Channel					
Corporate	7,499.0	—	—	—	7,499.0
Small Business	—	1,510.3	—	—	1,510.3
Government	—	—	2,519.3	—	2,519.3
Education	—	—	2,411.6	—	2,411.6
Healthcare	—	—	1,933.9	—	1,933.9
Other	—	—	—	2,158.3	2,158.3
Total Net sales	7,499.0	1,510.3	6,864.8	2,158.3	18,032.4
Timing of Revenue Recognition					
Transferred at a point in time where CDW is principal	6,818.7	1,423.1	6,410.2	1,900.6	16,552.6
Transferred at a point in time where CDW is agent	446.1	80.0	248.5	59.6	834.2
Transferred over time where CDW is principal	234.2	7.2	206.1	198.1	645.6
Total Net sales	$ 7,499.0	$ 1,510.3	$ 6,864.8	$ 2,158.3	$ 18,032.4

(1) Net sales by geography is generally based on the ship-to address with the exception of certain services that may be performed at, or on behalf of, multiple locations. Such service arrangements are categorized based on the bill-to address.

(2) Amounts have been reclassified for changes in individual product classifications to conform to the presentation for the year ended December 31, 2020.

(3) Includes items such as delivery charges to customers.

CDW CORPORATION AND SUBSIDIARIES
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(dollars in millions, except per share data, unless otherwise noted)

	Year Ended December 31, 2018				
	Corporate	Small Business	Public	Other	Total
Geography(1)					
United States	$ 6,834.4	$ 1,359.6	$ 6,154.7	$ 30.9	$ 14,379.6
Rest of World	8.1	—	—	1,852.8	1,860.9
Total Net sales	6,842.5	1,359.6	6,154.7	1,883.7	16,240.5
Major Product and Services(2)					
Hardware	5,464.9	1,135.2	5,039.3	1,492.3	13,131.7
Software	973.3	175.2	937.0	213.6	2,299.1
Services	336.9	28.1	161.8	169.1	695.9
Other(3)	67.4	21.1	16.6	8.7	113.8
Total Net sales	6,842.5	1,359.6	6,154.7	1,883.7	16,240.5
Sales by Channel					
Corporate	6,842.5	—	—	—	6,842.5
Small Business	—	1,359.6	—	—	1,359.6
Government	—	—	2,097.3	—	2,097.3
Education	—	—	2,327.4	—	2,327.4
Healthcare	—	—	1,730.0	—	1,730.0
Other	—	—	—	1,883.7	1,883.7
Total Net sales	6,842.5	1,359.6	6,154.7	1,883.7	16,240.5
Timing of Revenue Recognition					
Transferred at a point in time where CDW is principal	6,256.5	1,281.3	5,758.6	1,687.6	14,984.0
Transferred at a point in time where CDW is agent	389.1	69.4	211.5	49.8	719.8
Transferred over time where CDW is principal	196.9	8.9	184.6	146.3	536.7
Total Net sales	$ 6,842.5	$ 1,359.6	$ 6,154.7	$ 1,883.7	$ 16,240.5

(1) Net sales by geography is generally based on the ship-to address with the exception of certain services that may be performed at, or on behalf of, multiple locations. Such service arrangements are categorized based on the bill-to address.

(2) Amounts have been reclassified for changes in individual product classifications to conform to the presentation for the year ended December 31, 2020.

(3) Includes items such as delivery charges to customers.

(dollars in millions, except per share data, unless otherwise noted)

The following table presents Net sales by major category for the years ended December 31, 2020, 2019 and 2018. Categories are based upon internal classifications.

	Year Ended December 31,					
	2020		2019[1]		2018[1]	
	Net Sales	Percentage of Total Net Sales	Net Sales	Percentage of Total Net Sales	Net Sales	Percentage of Total Net Sales
Notebooks/Mobile Devices	$ 5,486.2	29.7 %	$ 4,344.9	24.1 %	$ 3,843.3	23.7 %
Netcomm Products	1,955.0	10.6	2,189.1	12.1	2,116.6	13.0
Desktops	1,132.4	6.1	1,547.3	8.6	1,254.9	7.7
Video	1,190.8	6.4	1,272.9	7.1	1,184.1	7.3
Enterprise and Data Storage (Including Drives)	947.4	5.1	1,147.6	6.4	1,102.4	6.8
Other Hardware	4,121.6	22.3	3,980.4	22.1	3,630.4	22.4
Total Hardware	14,833.4	80.2	14,482.2	80.4	13,131.7	80.9
Software[2]	2,581.0	14.0	2,585.0	14.3	2,299.1	14.2
Services[2]	913.9	4.9	840.9	4.7	695.9	4.3
Other[3]	139.2	0.9	124.3	0.6	113.8	0.6
Total Net sales	$ 18,467.5	100.0 %	$ 18,032.4	100.0 %	$ 16,240.5	100.0 %

(1) Amounts have been reclassified for changes in individual product classifications to conform to the presentation for the year ended December 31, 2020.

(2) Certain software and services revenues are recorded on a net basis for accounting purposes. As a result, the category percentage of net revenues is not representative of the category percentage of gross profits.

(3) Includes items such as delivery charges to customers.

(dollars in millions, except per share data, unless otherwise noted)

19. Selected Quarterly Financial Results (unaudited)

	Year Ended December 31, 2020			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales:				
Corporate	$ 1,911.0	$ 1,557.5	$ 1,660.0	$ 1,717.5
Small Business	391.5	302.1	337.0	366.5
Public:				
Government	568.5	719.7	847.7	842.6
Education	476.2	876.8	1,078.2	1,026.9
Healthcare	480.6	425.6	367.9	427.0
Total Public	1,525.3	2,022.1	2,293.8	2,296.5
Other	561.4	484.0	465.6	575.7
Net sales	$ 4,389.2	$ 4,365.7	$ 4,756.4	$ 4,956.2
Gross profit	756.5	747.2	825.5	880.9
Operating income	245.8	283.4	317.8	332.2
Net income	167.9	189.1	193.2	238.3
Basic(1)	1.18	1.32	1.36	1.67
Diluted(1)	1.16	1.31	1.33	1.65

	Year Ended December 31, 2019			
	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Net sales:				
Corporate	$ 1,736.2	$ 1,883.9	$ 1,913.5	$ 1,965.4
Small Business	355.6	377.4	386.2	391.1
Public:				
Government	488.4	578.4	793.4	659.1
Education	400.4	773.6	807.0	430.6
Healthcare	441.9	488.1	500.5	503.4
Total Public	1,330.7	1,840.1	2,100.9	1,593.1
Other	535.4	528.5	507.1	587.3
Net sales	$ 3,957.9	$ 4,629.9	$ 4,907.7	$ 4,536.9
Gross profit	672.1	773.8	816.5	777.5
Operating income	228.9	300.3	320.6	283.8
Net income	152.9	196.6	201.7	185.6
Basic(1)	1.04	1.35	1.39	1.29
Diluted(1)	1.02	1.33	1.37	1.27

(1) Basic and diluted net income per share are computed independently for each of the quarters presented. Therefore, the sum of quarterly basic and diluted per share information may not equal annual basic and diluted net income per share.

SCHEDULE II – VALUATION AND QUALIFYING ACCOUNTS
Years ended December 31, 2020, 2019 and 2018
(dollars in millions)

Allowance for credit losses:	Balance at Beginning of Period	Charged to Costs and Expenses	Deductions [(1)]	Balance at End of Period
Year Ended December 31, 2020	$ 7.9	$ 30.9	$ (9.2)	$ 29.6
Year Ended December 31, 2019	7.0	2.2	(1.3)	7.9
Year Ended December 31, 2018	6.2	2.0	(1.2)	7.0

(1) Primarily includes write-offs of uncollectible accounts.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures (as such term is defined in Rule 13a-15(e) or Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) as of the end of the period covered by this report. Based on such evaluation, the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, has concluded that, as of the end of such period, the Company's disclosure controls and procedures were effective in recording, processing, summarizing, and reporting, on a timely basis, information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act, and that information is accumulated and communicated to the Company's management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely discussions regarding required disclosure.

Management's Annual Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) and 15d-15(f) under the Exchange Act. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. 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 policies or procedures may deteriorate.

Management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020. Management based this assessment on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in "Internal Control — Integrated Framework (2013 framework)."

Based on its assessment, management concluded that, as of December 31, 2020, the Company's internal control over financial reporting is effective.

Ernst & Young LLP, independent registered public accounting firm, has audited the Consolidated Financial Statements of the Company and the Company's internal control over financial reporting and has included their reports herein.

Changes in Internal Control over Financial Reporting

There have been no changes in our internal control over financial reporting during the quarter ended December 31, 2020 that have materially affected or are reasonably likely to materially affect, our internal control over financial reporting. The Company has not experienced any material impact to our internal control over financial reporting despite the fact that most of our coworkers are working remotely for their health and safety during the COVID-19 pandemic. The Company is continually monitoring and assessing the potential impact of the COVID-19 pandemic on our internal controls to minimize the impact on their design and operating effectiveness.

Report of Independent Registered Public Accounting Firm

To the Stockholders and the Board of Directors of CDW Corporation and subsidiaries

Opinion on Internal Control over Financial Reporting

We have audited CDW Corporation and subsidiaries' internal control over financial reporting as of December 31, 2020, based on criteria established in Internal Control-Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework) (the COSO criteria). In our opinion, CDW Corporation and subsidiaries (the Company) maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on the COSO criteria.

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, 2020 and 2019, and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows for each of the three years in the period ended December 31, 2020, and the related notes and the financial statement schedule listed in the Index at Item 15 (a) (2) and our report dated February 26, 2021 expressed an unqualified opinion thereon.

Basis for Opinion

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects.

Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

/s/ Ernst & Young LLP
Chicago, Illinois
February 26, 2021

Item 9B. Other Information

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

We have adopted The CDW Way Code, our code of business conduct and ethics, that is applicable to all of our coworkers and directors. A copy of The CDW Way Code is available on our website at www.cdw.com. Within The CDW Way Code is a Financial Integrity Code of Ethics that sets forth an even higher standard applicable to our executives, officers, members of our internal disclosure committee and all managers and above in our finance department. We intend to disclose any substantive amendments to, or waivers from, The CDW Way Code by posting such information on our website or by filing a Form 8-K, in each case to the extent such disclosure is required by the rules of the SEC or Nasdaq.

See Part I - "Information about our Executive Officers" for the biographical information of our executive officers, which is incorporated by reference in this Item 10. Other information required under this Item 10 is incorporated herein by reference to our definitive proxy statement for our 2021 annual meeting of stockholders on May 20, 2021 ("2021 Proxy Statement"), which we will file with the SEC on or before April 30, 2021.

Item 11. Executive Compensation

Information required under this Item 11 is incorporated herein by reference to the 2021 Proxy Statement.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Information required under this Item 12 is incorporated herein by reference to the 2021 Proxy Statement.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Information required under this Item 13 is incorporated herein by reference to the 2021 Proxy Statement.

Item 14. Principal Accountant Fees and Services

Information required under this Item 14 is incorporated herein by reference to the 2021 Proxy Statement.

PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements and Schedules

The following documents are filed as part of this report:

(1) Consolidated Financial Statements:

(2) Financial Statement Schedules:

All other schedules are omitted since the required information is not present or is not present in amounts sufficient to require submission of the schedule, or because the information required is included in the Consolidated Financial Statements or notes thereto.

(b) Exhibits

Exhibit Number	Description
3.1	Fifth Amended and Restated Certificate of Incorporation of CDW Corporation, previously filed as Exhibit 3.1 with CDW Corporation's Amendment No. 2 to Form S-1 filed on June 14, 2013 and incorporated herein by reference.
3.1.1	Certificate of Amendment to Fifth Amended and Restated Certificate of Incorporation of CDW Corporation, previously filed as Exhibit 3.1 with CDW Corporation's Form 8-K filed on May 19, 2016 and incorporated herein by reference.
3.1.2	Certificate of Amendment to Fifth Amended and Restated Certificate of Incorporation of CDW Corporation previously filed as Exhibit 3.1 with CDW Corporation's Form 8-K filed on May 25, 2018 and incorporated herein by reference.
3.2	Amended and Restated By-Laws of CDW Corporation, previously filed as Exhibit 3.1 with CDW Corporation's Form 8-K filed on December 23, 2019 and incorporated herein by reference.
3.3	Articles of Organization of CDW LLC, previously filed as Exhibit 3.3 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.4	Amended and Restated Limited Liability Company Agreement of CDW LLC, previously filed as Exhibit 3.4 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.5	Certificate of Incorporation of CDW Finance Corporation, previously filed as Exhibit 3.5 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.6	Amended and Restated By-Laws of CDW Finance Corporation, previously filed as Exhibit 3.1 with CDW Corporation's Form 10-Q filed on May 8, 2015 and incorporated herein by reference.
3.7	Articles of Organization of CDW Technologies LLC, previously filed as Exhibit 3.7 with CDW Corporation's Form 10-K filed on February 25, 2016 and incorporated herein by reference.

Exhibit Number	Description
3.8	Operating Agreement of CDW Technologies LLC, previously filed as Exhibit 3.8 with CDW Corporation's Form 10-K filed on February 25, 2016 and incorporated herein by reference.
3.9	Articles of Organization of CDW Direct, LLC, previously filed as Exhibit 3.9 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.10	Amended and Restated Limited Liability Company Agreement of CDW Direct, LLC, previously filed as Exhibit 3.10 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.11	Articles of Organization of CDW Government LLC, previously filed as Exhibit 3.11 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.12	Amended and Restated Limited Liability Company Agreement of CDW Government LLC, previously filed as Exhibit 3.12 with CDW Corporation's Form S-4 filed on September 7, 2010 and incorporated herein by reference.
3.13	Articles of Organization of CDW Logistics LLC, previously filed as Exhibit 3.13 with CDW Corporation's Form 10-K filed on February 28, 2020 and incorporated herein by reference.
3.14	Limited Liability Company Agreement of CDW Logistics LLC, previously filed as Exhibit 3.14 with CDW Corporation's Form 10-K filed on February 28, 2020 and incorporated herein by reference.
4.1	Description of CDW Corporation's Common Stock, previously filed as Exhibit 4.1 with CDW Corporation's Form 10-K filed on February 28, 2020 and incorporated herein by reference.
4.2	Specimen Common Stock Certificate, previously filed as Exhibit 4.1 with CDW Corporation's Amendment No. 3 to Form S-1 filed on June 25, 2013 and incorporated herein by reference.
4.3	Base Indenture, dated as of December 1, 2014, by and among CDW LLC, CDW Finance Corporation, the guarantors party thereto and U.S. Bank National Association as trustee, previously filed as Exhibit 4.1 with CDW Corporation's Form 8-K filed on December 1, 2014 and incorporated herein by reference.
4.4	First Supplemental Indenture, dated as of December 1, 2014, by and among CDW LLC, CDW Finance Corporation, the guarantors party thereto and U.S. Bank National Association as trustee, previously filed as Exhibit 4.2 with CDW Corporation's Form 8-K filed on December 1, 2014 and incorporated herein by reference.
4.5	Form of 5.5% Senior Note (included as Exhibit B to Exhibit 4.4), previously filed as Exhibit 4.3 with CDW Corporation's Form 8-K filed on December 1, 2014 and incorporated herein by reference.
4.6	Fourth Supplemental Indenture, dated as of September 26, 2019, by and among the CDW LLC, CDW Finance Corporation, the guarantors party thereto and U.S. Bank National Association as trustee, previously filed as Exhibit 4.2 with CDW Corporation's Form 8-K filed on September 26, 2019 and incorporated herein by reference.
4.7	Form of 4.250% Senior Note (included as Exhibit A to Exhibit 4.6) previously filed as Exhibit 4.3 with the CDW Corporation's Form 8-K filed on September 26, 2019 and incorporated herein by reference.
4.8	Fifth Supplemental Indenture, dated as of April 21, 2020, by and among CDW LLC, CDW Finance Corporation, the guarantors party thereto and U.S. Bank National Association as trustee, previously filed as Exhibit 4.2 with CDW Corporation's Form 8-K filed on April 21, 2020 and incorporated herein by reference.
4.9	Form of 4.125% Senior Note (included as Exhibit A to Exhibit 4.8), previously filed as Exhibit 4.3 with CDW Corporation's Form 8-K filed on April 21, 2020 and incorporated herein by reference.
4.10	Sixth Supplemental Indenture, dated as of August 13, 2020, by and among CDW LLC, CDW Finance Corporation, the guarantors party thereto and U.S. Bank National Association as trustee, previously filed as Exhibit 4.2 with CDW Corporation's Form 8-K filed on August 13, 2020 and incorporated herein by reference.
4.11	Form of 3.25% Senior Note (included as Exhibit A to Exhibit 4.10), previously filed as Exhibit 4.3 with CDW Corporation's Form 8-K filed on August 13, 2020 and incorporated herein by reference.

Exhibit Number	Description
10.1	Second Amended and Restated Revolving Loan Credit Agreement, dated March 31, 2017, by and among CDW LLC, the lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, Wells Fargo Commercial Distribution Finance, LLC, as floorplan funding agent, and the joint lead arrangers, joint bookrunners, co-collateral agents, co-syndication agents and co-documentation agents party thereto, previously filed as Exhibit 10.1 with CDW Corporation's Form 8-K filed on March 31, 2017 and incorporated herein by reference.
10.2	Amended and Restated Term Loan Agreement, dated as of August 17, 2016, by and among CDW LLC, the lenders from time to time party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and the joint lead arrangers, joint bookrunners, syndication agent and co-documentation agents party thereto, previously filed as Exhibit 10.1 with CDW Corporation's Form 8-K filed on August 18, 2016 and incorporated herein by reference.
10.3	First Amendment to Amended and Restated Term Loan Agreement, dated as of February 28, 2017, among CDW, the lenders party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and the other loan parties party thereto, previously filed as Exhibit 10.1 with CDW Corporation's Form 8-K filed on March 2, 2017 and incorporated herein by reference.
10.4	Second Amendment to Amended and Restated Term Loan Agreement, dated as of April 3, 2018, among CDW LLC, the lenders party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and the other loan parties party thereto, previously filed as Exhibit 10.1 with CDW Corporation's Form 10-Q filed on May 3, 2018 and incorporated herein by reference.
10.5	Third Amendment to Amended and Restated Term Loan Agreement, dated as of October 11, 2019, among CDW LLC, the lenders party thereto, Barclays Bank PLC, as administrative agent and collateral agent, and the other loan parties party thereto, previously filed as Exhibit 10.1 with CDW Corporation's Form 10-Q filed on October 31, 2019 and incorporated herein by reference.
10.6	Second Amended and Restated Guarantee and Collateral Agreement, dated April 29, 2013, by and among CDW LLC, the guarantors party thereto and Barclays Bank PLC, as collateral agent, previously filed as Exhibit 10.2 with CDW Corporation's Form 8-K filed on May 1, 2013 and incorporated herein by reference.
10.7§	Compensation Protection Agreement, effective as of January 1, 2020, by and among CDW Corporation, CDW LLC and Christine A. Leahy, previously filed as Exhibit 10.1 with CDW Corporation's Form 8-K filed on March 11, 2019 and incorporated herein by reference.
10.8§*	Form of Compensation Protection Agreement (executive officers other than Christine A. Leahy).
10.9§	Form of Noncompetition Agreement under the Compensation Protection Agreement, previously filed as Exhibit 10.3 with CDW Corporation's Form 8-K filed on March 14, 2016 and incorporated herein by reference.
10.10§	Letter Agreement, dated as of September 13, 2011, by and between CDW Direct, LLC and Christina M. Corley, previously filed as Exhibit 10.31 with CDW Corporation's Form 10-K filed on March 9, 2012 and incorporated herein by reference.
10.11§	Form of Indemnification Agreement by and between CDW Corporation and its directors and executive officers, previously filed as Exhibit 10.32 with CDW Corporation's Amendment No. 2 to Form S-1 filed on June 14, 2013 and incorporated herein by reference.
10.12§	CDW Corporation Senior Management Incentive Plan, as Amended and Restated Effective January 1, 2020, previously filed as Exhibit 10.1 with CDW Corporation's Form 10-Q filed on August 5, 2020 and incorporated herein by reference.
10.13§	Amended and Restated 2013 Long-Term Incentive Plan of CDW Corporation, previously filed as Exhibit 10.1 with CDW Corporation's Form 8-K filed on May 19, 2016 and incorporated herein by reference.
10.14§	Amended and Restated CDW Corporation Coworker Stock Purchase Plan, previously filed as Exhibit 10.1 with CDW Corporation's Form 10-Q filed on November 3, 2016 and incorporated herein by reference.
10.15§	Form of Stock Option Agreement (executive officers) under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.22 with CDW Corporation's Form 10-K filed on March 1, 2017 and incorporated herein by reference.

Exhibit Number	Description
10.16§	Form of Stock Option Agreement (other than executive officers) under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.22 with CDW Corporation's Form 10-K filed on March 1, 2018 and incorporated herein by reference.
10.17§	Form of Performance Share Unit Award Agreement (executive officers) under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.23 with CDW Corporation's Form 10-K filed on March 1, 2017 and incorporated herein by reference.
10.18§	Form of Performance Share Unit Award Agreement (other than executive officers) under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.24 with CDW Corporation's Form 10-K filed on March 1, 2018 and incorporated herein by reference.
10.19§	Form of Performance Share Award Agreement (executive officers) under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.24 with CDW Corporation's Form 10-K filed on March 1, 2017 and incorporated herein by reference.
10.20§	Form of Restricted Stock Unit Award Notice and Agreement under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.20 with CDW Corporation's Form 10-K filed on February 28, 2020 and incorporated herein by reference.
10.21§	Form of Non-Employee Director Restricted Stock Unit Award Agreement under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.2 with CDW Corporation's Form 10-Q filed on May 6, 2020 and incorporated herein by reference.
10.22§	Form of Non-Executive Chair Retainer Restricted Stock Unit Award Agreement under the CDW Corporation Amended and Restated 2013 Long-Term Incentive Plan, previously filed as Exhibit 10.1 with CDW Corporation's Form 10-Q filed on May 6, 2020 and incorporated herein by reference.
10.23§	Letter Agreement, dated as of February 12, 2018 by and between CDW Limited and Collin B. Kebo, previously filed as Exhibit 10.28 with CDW Corporation's Form 10-K filed on March 1, 2018 and incorporated herein by reference.
21.1*	List of subsidiaries.
22.1*	List of Issuer and Guarantor Subsidiaries.
23.1*	Consent of Ernst & Young LLP.
31.1*	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934.
31.2*	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) or Rule 15d-14(a) under the Securities Exchange Act of 1934.
32.1**	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350.
32.2**	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350.
101.INS*	XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed herewith

** These items are furnished and not filed.

§ A management contract or compensatory arrangement required to be filed as an exhibit pursuant to Item 601 of Regulation S-K.

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.

			CDW CORPORATION
Date:	February 26, 2021	By:	/s/ Christine A. Leahy
			Christine A. Leahy
			President and Chief Executive Officer

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

Signature	Title	Date
/s/ Christine A. Leahy Christine A. Leahy	President and Chief Executive Officer (principal executive officer) and Director	February 26, 2021
/s/ Collin B. Kebo Collin B. Kebo	Senior Vice President and Chief Financial Officer (principal financial officer)	February 26, 2021
/s/ Ilaria Mocciaro Ilaria Mocciaro	Vice President, Controller and Chief Accounting Officer (principal accounting officer)	February 26, 2021
/s/ David W. Nelms David W. Nelms	Non-Executive Chairman of the Board	February 26, 2021
/s/ Virginia C. Addicott Virginia C. Addicott	Director	February 26, 2021
/s/ Steven W. Alesio Steven W. Alesio	Director	February 26, 2021
/s/ Barry K. Allen Barry K. Allen	Director	February 26, 2021
/s/ James A. Bell James A. Bell	Director	February 26, 2021
/s/ Benjamin D. Chereskin Benjamin D. Chereskin	Director	February 26, 2021
/s/ Lynda M. Clarizio Lynda M. Clarizio	Director	February 26, 2021
/s/ Paul J. Finnegan Paul J. Finnegan	Director	February 26, 2021
/s/ Anthony R. Foxx Anthony R. Foxx	Director	February 26, 2021
/s/ Joseph R. Swedish Joseph R. Swedish	Director	February 26, 2021
/s/ Donna F. Zarcone Donna F. Zarcone	Director	February 26, 2021