

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-K

Annual Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 for the fiscal year ended
December 31, 2023

Commission file number: 1-7945

deluxe

DELUXE CORPORATION

(Exact name of registrant as specified in its charter)

MN
(State or other jurisdiction of incorporation or organization)

801 S. Marquette Ave. Minneapolis MN
(Address of principal executive offices)

41-0216800
(I.R.S. Employer Identification No.)

55402-2807
(Zip Code)

Registrant's telephone number, including area code: (651) 483-7111

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 \$1.00 per share	DLX	NYSE

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

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

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

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

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

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

Large Accelerated Filer	<input checked="" type="checkbox"/>	Accelerated Filer	<input type="checkbox"/>
Non-accelerated Filer	<input type="checkbox"/>	Smaller Reporting Company	<input type="checkbox"/>
		Emerging Growth Company	<input type="checkbox"/>

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.

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

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

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

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

The aggregate market value of the voting stock held by non-affiliates of the registrant is \$753,760,362 based on the last sales price of the registrant's common stock on the New York Stock Exchange on June 30, 2023. The number of outstanding shares of the registrant's common stock as of February 8, 2024 was 43,850,076.

Documents Incorporated by Reference: Portions of our definitive proxy statement to be filed within 120 days after our fiscal year-end are incorporated by reference in Part III.

DELUXE CORPORATION
FORM 10-K
FOR THE YEAR ENDED DECEMBER 31, 2023

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PART I

Please note that this Annual Report on Form 10-K contains statements that may constitute “forward-looking statements” under the Private Securities Litigation Reform Act of 1995 (the “Reform Act”). Forward-looking statements include information concerning future strategic objectives, business prospects, anticipated savings, financial results (including earnings, liquidity, cash flow and capital expenditures), industry or market conditions, demand for our products and services, acquisitions and divestitures, anticipated results of litigation, regulatory developments or general economic conditions. Because actual results may differ materially from those expressed or implied by these forward-looking statements, we caution readers not to place undue reliance on these statements. Our business, financial condition, cash flows and operating results are influenced by many factors, which are often beyond our control, that can cause actual results to differ from those expressed or implied by the forward-looking statements. Part I, Item 1A of this report outlines known material risks and important information to consider when evaluating our forward-looking statements. The Reform Act provides a “safe harbor” for forward-looking statements to encourage companies to provide prospective information. When we use the words or phrases “should result,” “believe,” “intend,” “plan,” “are expected to,” “targeted,” “will continue,” “will approximate,” “is anticipated,” “estimate,” “project,” “outlook,” “forecast” or similar expressions in this Annual Report on Form 10-K, in future filings with the Securities and Exchange Commission (“SEC”), in our press releases, investor presentations and in oral statements made by our representatives, they indicate forward-looking statements within the meaning of the Reform Act. Readers are cautioned that all forward-looking statements are based on current expectations and estimates and apply only as of the date of this report. We assume no obligation to update this information.

ITEM 1. BUSINESS

COMPANY OVERVIEW

More than 105 years ago, Deluxe Corporation began providing payment solutions. Our longevity is a testament to our innovation, our ability to evolve with our customers, and the trust they place in us. We have transformed to a modern payments and data company that champions business so communities thrive. We support millions of small businesses, thousands of financial institutions and hundreds of the world's largest consumer brands. We sell our products and services primarily in North America, and we operate 4 business segments that are generally organized by product type. These segments provide the following products and services:

Business Segment	Category	Percentage of 2023 consolidated revenue	Description
Payments	Merchant services and other payment solutions	20.5 %	Merchant in-store, online and mobile payment solutions; payables as a service, including eChecks, Medical Payment Exchange and Deluxe Payment Exchange; and payroll and human resources services
	Treasury management solutions	11.0 %	Automated receivables technology, including remittance and lockbox processing, remote deposit capture and cash application, as well as payment acceptance solutions
	Total	31.5 %	
Data Solutions	Data-driven marketing solutions	8.8 %	Solutions for marketing business-to-business and business-to-consumer
	Web and hosted solutions	2.1 %	Web-based solutions, including financial institution profitability reporting and business incorporation services, and our former web hosting and logo design businesses that were fully divested in June 2023
	Total	10.9 %	
Promotional Solutions	Marketing and promotional solutions	12.7 %	Business forms and accessories, including envelopes, labels, stationery and more
	Forms and other products	12.0 %	Advertising specialties, promotional apparel and print services
	Total	24.7 %	
Checks	Checks	32.9 %	Printed business and personal checks

During the past 2 years, we made strategic decisions to exit certain of our businesses. During 2022, we sold our Data Solutions Australian web hosting business, as well as our Promotional Solutions strategic sourcing and retail packaging businesses. During 2023, we sold our North American web hosting and logo design businesses, completing our exit from the web hosting space. Also during 2023, we executed agreements to exit our Payments payroll and human resources services business by allowing for the conversion of our U.S. and Canadian customers to other service providers. We expect these conversions will be completed during 2024.

During the first quarter of 2024, we realigned our organizational structure to better reflect our portfolio mix and offerings, and we updated our reportable segments to correspond with these changes. We did not operate under the new segment structure during 2023, and we continued to allocate resources and assess performance based on our current reportable segment structure.

Our realigned reportable segments for the quarter ending March 31, 2024 are as follows:

- **Merchant Services** – This segment includes the electronic credit and debit card authorization and payment systems and processing services that we provide primarily to small and medium-sized retail and service businesses.
- **B2B Payments** – This segment includes treasury management solutions, including remittance and lockbox processing, remote deposit capture, automated receivables management, payment processing and cash application, as well as automated payables management, including Medical Payment Exchange and Deluxe Payment Exchange.
- **Data Solutions** – This segment includes data-driven marketing solutions, financial institution profitability reporting and business incorporation services.
- **Print** – This segment includes printed personal and business checks, printed business forms, business accessories and promotional products.

OUR STRATEGY

Our enterprise strategy is simple: to utilize the cash flows, customer relationships and brand equity from our print businesses to drive profitable organic growth in our other businesses. We are implementing this strategy with strong execution in 3 core areas:

1. cross-selling across our portfolio of products and services via our One Deluxe go-to-market model,
2. operational efficiency, and
3. a disciplined capital allocation framework.

The actions we have taken since we began our transformation in 2019 allowed us to pivot from a legacy check printer into a modern payments and data company. We divested non-strategic businesses, and the remainder of our business experienced its third consecutive year of growth in 2023, with profits growing faster than revenue. Our largest cash generator, Checks, is outperforming the market, while holding margins steady in the mid-40% range.

Having laid this groundwork, we have confidence in our ability to deliver greater shareholder return through our focus on growth in payments and data. We recently announced our North Star program, the goal of which is to further drive shareholder value by (1) expanding our earnings before interest, taxes, depreciation and amortization ("EBITDA") growth trajectory, (2) driving increased cash flow, (3) paying down debt, and (4) improving our leverage ratio. North Star is an integrated, multi-year plan that is a mix of cost reduction and growth initiatives, with the mix skewing toward cost reductions. On the cost side, much of the work is an evolution of our organizational design and ongoing infrastructure and operations transformation. We have already completed our initial organizational redesign, combining like-for-like roles, reducing layers and expanding spans of control. As we begin 2024, we are using technology and process automation to digitize and streamline our processes, and we are continuing to drive scale in our operations by consolidating many of our back-office functions, improving our marketing and sales capabilities, and leveraging the global labor market. On the revenue side, we are focused on priorities such as building our integrated software channel in merchant services, expanding our data business to serve additional industry verticals, and evaluating pricing opportunities. All of our North Star investments must meet our internal hurdle rate and generate a higher return than other uses of capital, such as paying down debt. The overall North Star program targets a \$100 million run-rate improvement in free cash flow and an \$80 million run-rate improvement in adjusted EBITDA by 2026. North Star is a critical next step to accelerate our shift into a profitable modern payments and data company.

SALES AND MARKETING

We employ a "One Deluxe" go-to-market model, deploying dedicated sales teams across our business segments to ensure we leverage the expertise within each segment to meet our customers' needs. We listen to our customers and their needs first. Then we bring the best of Deluxe to solve their problems. This results in deeper customer relationships, and we move

from being a transactional vendor to a trusted partner. Then, as the relationship deepens, we uncover even more opportunities for future growth, giving us the opportunity to sell additional products and services. Our business segments help each other deliver greater value for our customers, enabling our customers to build their businesses on our platforms for the long-term.

We employ a multi-channel sales and marketing approach, selling directly to financial institutions and major global brands. We also sell our products and services through scalable partnerships, enabling us to cost-effectively reach customers, specifically leveraging our financial institution and other strategic partnerships. In addition, millions of inbound customer contacts buying or reordering our products and services provide extensive cross-sell opportunities.

OUR BUSINESSES

Payments merchant services

We provide a full range of payment processing services primarily to small and medium-sized retail and service businesses, including nonprofit organizations. These services include credit card, debit card and electronic benefit transaction processing; check guarantee and conversion; and point-of-sale ("POS") equipment leasing. The majority of merchant services revenue is generated by services priced as a percentage of transaction value or a specified fee per transaction, depending on the payment type or the market. We distribute our services through multiple sales channels, processing approximately \$40 billion in annual transaction volume. Payments are processed using a variety of methods, including in-person and online, and via recurring payments.

This market continues to expand and evolve, with digital payment vehicles and transaction volumes growing around the world. The industry is continuously changing, highly innovative, and increasingly subject to regulatory scrutiny and oversight. The challenge is to continually modernize our technology to support new service offerings and to identify new revenue streams, as well as to invest in digital technologies to more rapidly address evolving customer preferences. Competition in the merchant services industry is intense. We are competing against numerous financial technology ("Fintech") companies, including independent payment processors and credit card processing firms, as well as financial institution in-house capabilities.

Volume is key to remaining cost-competitive, as it allows us to drive scale in our operations, and breadth of services is critical to staying relevant to customers. We believe our competitive advantages are our people, our infrastructure and our relationships. Many of our employees are experts in the industry and have been with the company for many years. Additionally, we own the majority of our technology rather than leasing it, specifically our gateways, merchant onboarding, risk management, clearing and settlement technologies. This allows us to launch new products and services faster and to have scalability in our cost structure.

Going forward, our focus in this business is to gain share by offering more omnichannel and embedded services to our merchants and growing our integrated software partnerships.

Payments treasury management solutions

We help businesses pay and get paid. Our solutions reconcile and manage our customers' invoices with all types and channels of payments, including paper and digital payments. Our software and workflow tools automatically reconcile millions of payments, and we seamlessly integrate those payments with our customers' accounting software. After years of solving the complexity of lockbox processes, our software and workflow tools are embedded within our customers' systems, and more than 70% of the top 200 financial institutions use our item processing capabilities. We expect that delivering a comprehensive platform to address customer needs in the order-to-cash cycle will generate growth in this business. This includes services such as exception processing, cash application and collections. With the expansion of additional features and functionalities, we expect to drive meaningful value for our customers. Over time, we expect to move from our traditional service set focused on item processing, such as lockbox and remote deposit capture, to services focused on accounts receivable and accounts payable automation through software solutions.

Our competition in this industry is primarily large, diversified software and service companies and independent suppliers of software products. Existing and potential financial institution clients may also develop and use their own in-house systems. We believe our competitive advantages are our expertise, strong relationships and innovative solutions, and we estimate that a sizeable portion of the potential market remains untapped.

Going forward, our focus in this business is continued expansion of our integrated receivables and exception management tools, gaining efficiencies in our item processing businesses, and expanding revenue from our investments in accounts receivable and accounts payable solutions.

Data Solutions data-driven marketing

We leverage data and analytics to help our clients acquire more customers through end-to-end targeted marketing campaigns. Our ability to target consumer and business audiences means that marketing recipients are less likely to skip the ad in their inbox or throw away a mailed product offer, and that translates into material growth for our clients.

We believe that few of our marketing competitors truly serve our core market well, and our competitive advantages are our data and top-level talent. We have one of the industry's largest repositories of data, with nearly 100 contributing sources, including credit bureaus, leading property data aggregators, and behavioral and trigger-based data providers. We then integrate these data sets into a unified data library. Our investment in a flexible, modern, cloud-based infrastructure has allowed us to do this at a pace that was previously not possible. Our people transform this data into actionable marketing audiences for our clients. We recruit from top schools and train our professionals to utilize advanced analytics to deliver fully integrated marketing campaigns.

Going forward, we believe there is significant opportunity for growth in this business. Marketers are under pressure to further leverage their investments by demonstrating measurability through scientific, data-driven marketing. The banking industry is currently our largest customer segment, given the respected Deluxe brand and our historical relationships with financial institutions. However, we are increasing efforts to win in verticals outside the traditional banking space to complement our recent wins in the telco, utilities, e-commerce, retail and smart home industries.

Promotional Solutions and Checks

We print business and consumer checks that we distribute through banks and direct channels. Although check usage has been declining since the 1990s, checks remain a payment necessity for millions of consumers and businesses. According to our research, checks remain the most common payment method for non-payroll payments for mid-sized businesses (i.e., those with annual revenue between \$5 million and \$500 million). We meet that market need by shipping over 90,000 packages of checks every day. Checks are complemented by our promotional products business. This business has sales and operating synergies with checks, providing items such as forms, envelopes and deposit tickets, which are often printed on the same equipment. We also support our print customers by selling relationship-deepening products, such as branding solutions and marketing materials. The experienced talent, client-focused approach, strong foundation of credibility, brand reputation and durable cash flows within our print businesses support our strategy of growth in payments and data.

Our check business faces significant competition from another large check printer in our traditional financial institution sales channel, direct mail and internet-based sellers of personal and business checks, check printing software vendors, and certain significant retailers. Pricing continues to be competitive in our financial institution sales channel, as financial institutions seek to maintain their previous levels of profitability, even as check usage declines. The market for business forms and certain business accessories has also been declining for several years, as continual technological improvements have provided businesses with alternative means to execute and record business transactions. Greater acceptance of electronic signatures has also contributed to the overall decline in printed products. The markets for business forms and promotional products are highly competitive and fragmented. Current and potential competitors include traditional storefront printing companies, office superstores, wholesale printers, online printing companies, small business product resellers, and providers of custom apparel and gifts.

We believe that our competitive advantages are our people, product accuracy, security features, quality and service, long-standing financial institution relationships, and digital print-on-demand technology that allows us to implement new customer requirements faster and expand our premium check and overall print design options.

Going forward, we will continue to invest in print efficiencies and process improvements to maintain margins, and we will prioritize higher margin promotional products that complement checks.

OUR OPERATIONS

We continue to focus on improving the customer experience by providing excellent service and quality, while increasing our productivity and reducing our costs. We do this by embedding lean operating principles into our processes, while emphasizing a culture of continuous improvement and innovation. We utilize a shared services approach, which allows our businesses to leverage shared facilities, to optimize capacity utilization and to enhance operational excellence. Objectives for our operations include focusing on process efficiency by reengineering our ways of working, using intelligent automation and other tools, and continuing to build better tools to enable us to more effectively target potential customers with our sales and marketing efforts.

One example of putting these objectives into action is the investment we made in our print infrastructure over the past 2 years. We implemented equipment that enables what the industry refers to as "Print On Demand," which allows us to continue to offer customers the same choices, with less waste, labor and inventory. This builds on our strong position in the check printing space, allowing us to manage our margins and to redirect cost savings into our payments and data businesses. Maximizing our

technology is also key to executing our strategy. We are responsibly expanding our technology investment in our growth businesses by creating a digital-first platform that is cloud-based, data driven and built with scalable components. This enables growth by allowing us to build and commercialize our products more rapidly. We are also replacing legacy systems and processes with digital solutions. This optimizes margins by reducing labor and system costs, while also improving employee and customer experiences. The mission of our operations is to focus on efficiency first, but always in service of our customers and business partners.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE PRACTICES

We have implemented a stakeholder-focused environmental, social and governance ("ESG") program to meet the needs and expectations of regulators, customers, shareholders and employees. We devote significant resources to addressing ESG throughout the company, including responsible process improvement efforts, enhancing our commitments to diversity, equity, inclusion and belonging ("DEIB") through our DEIB Council and employee resource groups, promoting community awareness, giving back through our volunteer time off program, and continually improving our cybersecurity and privacy processes and controls to keep our data safe. We measure our ESG goals and impacts through yearly strategic assessments that keep us accountable and inform our annual and multi-year ESG strategies.

Sustainability is also embedded into our operational model. We take sustainability seriously and focus on the following areas:

- **Energy** – We implemented several energy-saving measures during the construction of our hub facilities in Atlanta and Minneapolis, including installing LED lighting, utilizing daylight harvesting strategies and optimized HVAC systems, and selecting materials that reduce carbon input and increase recycled content.
- **Waste** – We are focused on understanding the waste stream in our facilities, with the goal of reducing the amount of waste we generate and recycling as much of our waste stream as is practical. For example, we have moved from volume inventories of custom inks to utilizing onsite mixing systems, which has reduced waste stream processing, with an added benefit of better response times for customers.
- **Materials** – Over 90% of our check and forms paper is purchased from Forest Stewardship Council-certified supplier mills. In addition, our vinyl checkbook covers are produced using a minimum of 45% post-industrial recycled material. We also employ recycling efforts that allow us to divert more of our waste out of landfills by being diligent in the segregation of our waste streams.
- **Carbon** – We continually review our business operations, including the materials we use, how we manage our facilities and the role we play in communities, to ensure our growth includes sustainable practices.

Protecting the environment and our shared future is key to our business and to delivering the products our customers need.

OUR MATERIALS, SUPPLIES AND SERVICE PROVIDERS

The principal materials used in producing our main products are paper, plastics, ink, corrugated packaging and printing plate material, which we purchase from various sources. We also purchase stock business forms and promotional apparel produced by third parties. In addition, we have entered into agreements with third-party providers for delivery services and information technology services, including telecommunications, network server and transaction processing services, as well as various other services. We also rely on third parties to provide a portion of the data used to maintain our proprietary and non-proprietary databases, including credit and non-credit data from the national credit bureaus and other data brokers.

We believe that in the event one of our vendors fails to perform, we would be able to obtain an alternative source of supply. However, we have taken steps to secure multiple sources of supply for certain of the materials and services we utilize, including those related to certain printed products in our Promotional Solutions segment. We can provide no assurance that we would be able to obtain an alternative source of supply, or that such supply could be obtained at current prices, in the event one of our vendors fails to perform.

OUR HUMAN CAPITAL

Our most valuable asset is our employee-owners. As of December 31, 2023, we had 5,170 employees, with 4,870 employees in the United States and 300 employees in Canada. We are proud of our strong history of positive, productive employee relations. None of our employees are currently represented by labor unions.

The foundation of our continuing success as a modern payments and data company is our ability to attract and retain diverse, exceptional and motivated talent. We accomplish this by providing a culture of inclusion, diversity, equity, development, opportunity and empowerment.

Results-Driven, Community-Focused, Collaborative Culture

We focus on creating an environment where our employees, also known as Deluxers, feel respected and valued, and where they can contribute to their full potential. To this end, a key component of our strategy is that all of our employees are granted restricted stock unit awards, making them employee-owners. Our heritage reflects deep-seated roots in community support and volunteerism, which is reflected in our purpose statement: "Champions for business so communities thrive." Additionally, our values focus on delivering results:

- Customers First
- Earn Trust
- Innovation
- Grit and Perseverance
- Power of One

To continue improving our culture and engagement, we provide employee learning and development at all levels of the organization on a variety of topics, including, leadership development, mentoring, and DEIB initiatives. We continue our focus on training and development programs and transparent communication channels through change pulse checks, employee surveys, senior leadership forums and employee resource groups.

Diversity, Equity, Inclusion and Belonging

We embrace DEIB in our workforce, customers and partners, valuing everyone's unique background, experiences, thoughts and talents. Our mission is to empower all employees to bring their full authentic selves to work and to foster an environment that reflects the diverse communities we serve. We strive to cultivate a culture and vision that supports and enhances our ability to recruit, develop and retain diverse talent at every level. We provide our customers, partners and shareholders information about our DEIB program and our activities supporting the communities we serve. In addition, we are focused on furthering our DEIB initiatives throughout our business and have, among other things, created a DEIB council that is sponsored by our Chief Human Resources Officer. This council is comprised of employees from multiple functions and business segments. Its top priorities include managing a comprehensive DEIB learning and development plan to build awareness and drive inclusive behaviors, and further developing our diversity pipeline through hiring, mentoring and coaching.

As of December 31, 2023, our total workforce was approximately 57% female and 43% male. Our team members located in the United States were comprised of approximately 50% white, 18% Black or African American, 12% Hispanic or Latino, 11% Asian American and 9% other. We continue to focus our development and DEIB programs on growing the number of female and minorities represented in leadership roles.

Under the board's oversight and guidance, we have taken significant actions to enhance our diverse and inclusive culture, protect and train our employees, and maintain our reputation as a great place to work. We continually strive to improve the attraction, retention, and advancement of diverse employees to grow and retain talent that represents the communities in which we operate. Below are recent examples of our commitment to DEIB:

- 33% of our directors identify as from diverse backgrounds, including the independent chair of our board of directors, who is a woman of color.
- We offer 10 employee resource groups ("ERGs"), including African American, Pacific Islander Middle Eastern Asian, disabled, Hispanic and Latino, veteran, LGBTQ+, parent and women.
- In both 2022 and 2023, The Human Rights Campaign Foundation's Corporate Equality Index recognized us as a Best Place to Work for LGBTQ+ Equality.
- In 2023, for the 15th consecutive year, we were included on the honor roll for Gender Diversity in Executive Roles and Board of Directors published by Twin Cities Business.
- In 2023, we were named a VETS Indexes 3 Star Employer for our commitment to recruiting, hiring and developing our veterans and military connected community.

Health, Wellness and Safety

Creating a culture where all employees feel supported and valued is paramount to our strategy, and we continue to take steps to ensure the safety of our employees and business partners. We also continue to provide a competitive benefits package focused on fostering work/life integration. Well-being in our organization is enabled by our commitment to provide resources and

support for our employees, allowing them to deliver for customers and shareholders. We offer several programs to benefit our employees and support work environments that encourage growth, innovation and productivity. These benefits range from standard medical, dental, life and disability insurance to programs that provide additional support for our employees' mental, physical, financial and social wellbeing. We provide paid parental leave and infertility, adoption and surrogacy assistance. We partner with Care.com® to offer services for employees to find tutors, nannies, children's daycare and eldercare, and we offer an employee assistance program that provides employees with confidential counseling. We also offer employees tuition and travel assistance, and qualified long-term employees have the opportunity to take a sabbatical. Beginning in 2023, we began offering unlimited flexible time off to our salaried employees. By enabling our employees to thrive in their personal lives, we provide tools for our employees to best deliver for customers and shareholders while at work.

Community Engagement

Our employees believe in the power of connection, of activity and of giving back to the communities we serve. Our partnerships and charitable work in the communities we serve are an integral part of our core values. This spirit of community is felt throughout our organization and is fostered by our paid volunteer time off ("VTO") program for employees, which provides 3 paid VTO days per year. It is also reflected in our partnership with the Deluxe Foundation, which enables employees to donate to not-for-profit organizations of their choosing and receive a matching donation, dollar for dollar, up to \$2,000 per year. Our commitment goes beyond monetary donations. Several of our top executives serve on boards for major not-for-profit organizations and other community organizations that align with our company values of diversity, rebuilding communities and education.

We continue our commitment to enriching our communities in the following ways:

- Since 1992, we have partnered with Junior Achievement USA® chapters in our local communities to inspire and prepare young people to succeed. We support Junior Achievement's mission through foundation grants, awareness and employee volunteers.
- We have partnered with the American Red Cross® for decades, organizing blood drives at our locations and hosting fundraisers and bake sales to help fund the American Red Cross mission of preventing and alleviating human suffering in the face of emergencies.
- In 2023, 580 Deluxe volunteers from Minneapolis, Atlanta, Kansas City and Fort Worth packed 120,000 meals that were donated to local food shelves.
- Our employees donated \$221,000 to nonprofit organizations in 2023.
- In 2023, our employees contributed approximately 22,000 hours to our local communities through our VTO program.

SEASONALITY

Historically, we have experienced seasonal trends with certain of our products and services. For example, Promotional Solutions holiday card revenue is typically stronger in the fourth quarter of the year due to the holiday season, while sales of Promotional Solutions tax forms are stronger in the first and fourth quarters of the year. Within our Data Solutions segment, our customers' marketing campaign cycles result in revenue fluctuations throughout the year, typically with less revenue in the fourth quarter of the year.

GOVERNMENT REGULATION

We are subject to numerous international, federal, state and local laws and regulations that affect our business activities in several areas, including, but not limited to, labor, advertising, taxation, data privacy and security, consumer reports, consumer protection, merchant processing, online payment services, real estate, e-commerce, intellectual property, health care, environmental matters, and workplace health and safety. The complexity of complying with existing and new laws and regulations is significant, and regulators may adopt new laws or regulations at any time.

For more specific information about the effects of government regulation on our business, see Item 1A, "Legal and Compliance Risks – *Governmental regulation is continuously evolving and could limit or harm our business.*" We believe that the impact on our capital expenditures and earnings of complying with government regulations will not be materially different in the upcoming year than it was in 2023.

AVAILABLE INFORMATION

We make available, without charge, through our investor relations website, www.investors.deluxe.com, our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to these reports filed or furnished pursuant to section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended, as soon as reasonably practicable after these items are electronically filed with or furnished to the SEC. These reports can also be accessed via the SEC website, www.sec.gov.

A printed copy of this report may be obtained without charge by calling 651-787-1068, by sending a written request to the attention of Investor Relations, Deluxe Corporation, P.O. Box 818095, Cleveland, Ohio 44181, or by sending an email request to investor.relations@deluxe.com.

Further information about Deluxe Corporation is also available at www.deluxe.com, www.facebook.com/deluxecorp, www.linkedin.com/company/deluxe and www.twitter.com/deluxe. The content of these websites is not incorporated by reference in this Annual Report on Form 10-K or in any other report or document we file with the SEC.

OUR CODE OF ETHICS AND CORPORATE GOVERNANCE GUIDELINES

We have adopted a Code of Ethics that applies to our employees and our board of directors. The Code of Ethics is available on our investor relations website, www.investors.deluxe.com, and also can be obtained free of charge upon written request to the attention of Investor Relations, Deluxe Corporation, P.O. Box 818095, Cleveland, Ohio 44181. Any changes or waivers of the Code of Ethics will be disclosed on our website. In addition, our Corporate Governance Guidelines and the charters of the Audit and Finance, Compensation and Talent, and Corporate Governance Committees of our board of directors are available on our website, www.investors.deluxe.com, or upon written request.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Our executive officers are appointed by the board of directors each year. The following summarizes our executive officers and their positions.

Name	Age	Present Position	Executive Officer Since
Barry McCarthy	60	President and Chief Executive Officer	2018
William "Chip" Zint	39	Senior Vice President, Chief Financial Officer	2022
Debra Bradford	65	Senior Vice President, Division President, Merchant Services	2023
Garry Capers, Jr.	47	Senior Vice President, Chief Operations Officer	2019
Jeffrey Cotter	56	Senior Vice President, Chief Administrative Officer and General Counsel	2018
Tracey Engelhardt	59	Senior Vice President, Division President, Print	2012
Jean Herrick	55	Senior Vice President, Chief Human Resources Officer	2022
Yogaraj "Yogs" Jayaprakasam	46	Senior Vice President, Chief Technology and Digital Officer	2022

[Barry McCarthy](#) joined us in November 2018 as President and Chief Executive Officer.

[Chip Zint](#) joined us in August 2020 as Vice President of Corporate Finance and was named Senior Vice President, Chief Financial Officer in October 2022. Prior to joining us, Mr. Zint held several positions with NCR Corporation, an enterprise technology provider, most recently as Vice President of Finance and Chief Financial Officer of Hardware from January 2019 to July 2020 and Vice President, Corporate Financial Planning and Analysis from May 2017 to January 2019.

[Debra Bradford](#) joined us in June 2021 as President and Chief Financial Officer of First American Payment Systems, L.P., a position she held since March 2008. Ms. Bradford was named President, Merchant Services in July 2023.

[Garry Capers, Jr.](#) was named Chief Operations Officer in July 2023. Mr. Capers joined us in September 2019 as President, Data Solutions, and in November 2021, added the Promotional Solutions segment to his responsibilities. Prior to joining us, Mr. Capers was employed by Automatic Data Processing, Inc., a provider of human resources management software and services, from January 2017 to September 2019, most recently as Senior Vice President, General Manager, National Account Services Comprehensive Outsourcing Services and Operations.

Jeffrey Cotter was named Chief Administrative Officer in January 2019. Mr. Cotter joined us in June 2018 as Senior Vice President, General Counsel.

Tracey Engelhardt was named President, Print in July 2023. Ms. Engelhardt was named Senior Vice President, Checks in October 2019 and in May 2022, she added Chief of Operations to her responsibilities. From March 2017 to October 2019, Ms. Engelhardt served as Senior Vice President, Direct-to-Consumer.

Jean Herrick was named Senior Vice President, Chief Human Resources Officer in June 2022. From January 2016 to June 2022, Ms. Herrick served as Vice President, Human Resources.

Yogs Jayaprakasam joined us in May 2022 as Senior Vice President, Chief Technology and Digital Officer. Prior to joining us, Mr. Jayaprakasam held several positions with American Express Company, most recently as Unit Chief Information Officer for the Global and Large Client Group and head of engineering for B2B Digital Payments from June 2021 to May 2022. Mr. Jayaprakasam also served American Express Company as Vice President, Enterprise Platforms for Sales, Marketing and Data Platforms from May 2020 to June 2021, and as Vice President, Enterprise Platforms for Sales and Marketing from November 2017 to May 2020.

ITEM 1A. RISK FACTORS

We routinely encounter and address risks, many of which could cause our future results to be materially different than we currently anticipate. These risks include, but are not limited to, the principal factors listed below and the other matters set forth in this Annual Report on Form 10-K. We place no priority or likelihood based on these descriptions or order of presentation. We are also subject to general risks and uncertainties that affect many other companies, including overall economic, industry and market conditions. Additional risks not presently known to us, or that we currently believe are immaterial, may also adversely affect us. You should carefully consider all of these risks and uncertainties before investing in our common stock.

STRATEGIC RISKS

If our long-term growth strategy is not successful, our business and financial results would be adversely impacted.

Our strategy is to utilize the cash flows, customer relationships and brand equity from our print businesses to drive profitable organic growth in our payments and data businesses. Further information about our strategy can be found under the caption "Our Strategy" appearing in Part I, Item 1 of this report. We may not achieve our long-term objectives, and investments in our business may fail to impact our financial results as anticipated. Our strategic plan could fall short of our expectations for many reasons, including, among others:

- our failure to generate profitable revenue growth;
- our inability to acquire new customers, retain our current customers and sell more products and services to current and new customers;
- our inability to implement additional improvements to our technology infrastructure, our digital services offerings and other key assets to increase efficiency, enhance our competitive advantage and scale our operations;
- our failure to develop new products and services;
- our failure to effectively manage the growth, expanding complexity and pace of change of our business and operations;
- our inability to effectively operate, integrate or leverage businesses we acquire;
- the failure of new products and services to achieve widespread customer acceptance;
- our inability to promote, strengthen and protect our brand;
- an unexpected change in demand for checks or other products;
- our failure to attract and retain skilled talent to execute our strategy and sustain our growth;
- unanticipated changes in our business, markets, industry or the competitive landscape; and
- general economic conditions.

We can provide no assurance that our strategy will be successful, either in the short term or in the long term, that it will generate a positive return on our investment or that it will not materially reduce our adjusted earnings before interest, taxes, depreciation and amortization ("adjusted EBITDA") margins. If our strategy is not successful, or if there is market perception that our strategy is not successful, our reputation and brand may be damaged and our stock price may fall.

If we are unable to attract and retain customers in a cost-effective manner or effectively operate a multichannel customer experience, our business and results of operations would be adversely affected.

Our success depends on our ability to attract new and returning customers in a cost-effective manner. We use a variety of methods to promote our products and services, including a direct sales force, partner referrals, email marketing, purchased search results from online search engines, direct mail advertising, broadcast media, advertising banners, social media and other

online links. Certain of these methods may become less effective or more expensive. For example, response rates for direct mail advertising have been decreasing for some time, internet search engines could modify their algorithms or increase prices for purchased search results, or certain partner referrals could decline. Because we offer a diverse portfolio of products and services, we may also face challenges in increasing customer awareness of all of our offerings. Efforts to expand customer awareness of our diverse range of products and services may result in increased marketing expense and may fail to generate additional revenue.

We continually evaluate and modify our marketing and sales efforts to achieve the most effective mix of promotional methods. Competitive pressure may inhibit our ability to reflect increased costs in the prices of our products and services and/or new marketing strategies may not be successful. Either of these occurrences would have an adverse impact on our ability to compete and our results of operations would be adversely affected. In addition, when our check supply contracts expire, customers have the ability to renegotiate their contracts with us or to consider changing suppliers. Failure to achieve favorable contract renewals and/or to obtain new check supply customers would result in decreased revenue.

Additionally, we believe we must maintain a relevant, multichannel experience in order to attract and retain customers. Customers expect to have the ability to choose their method of ordering, whether via the mail, computer, phone or mobile device. Although we are constantly investing in our user experience, we cannot predict the success of these investments. Multichannel marketing is rapidly evolving and we must keep pace with the changing expectations of our customers and new developments by our competitors. If we are unable to implement improvements to our customer-facing technology in a timely manner, or if our customer-facing technology does not function as designed, we could find it increasingly difficult to attract new and returning visitors, which would result in decreased revenue.

We face intense competition from other businesses, and we expect that competition will continue to increase.

Competition in the payments industry is intense. We are competing against numerous financial technology ("Fintech") companies, including independent payment processors, credit card processing firms and treasury management service providers, as well as financial institution in-house capabilities. Volume is the key to remaining cost-competitive, and breadth of services is critical to staying relevant to customers. In addition, although we are a leading check printer in the U.S., we face considerable competition in the check printing portion of the payments industry from another large check printer in our traditional financial institution sales channel, from direct mail and internet-based sellers of personal and business checks, from check printing software vendors, and from certain significant retailers. Pricing continues to be competitive in our financial institution sales channel, as financial institutions seek to maintain their previous levels of profitability, even as check usage declines.

Within our Data Solutions segment, our data-driven marketing services face competition from a wide variety of companies in the data solutions space, including advertising agencies, marketing technology firms, data aggregators and brokers, and source data providers. Adapting to new technology is a key challenge in this business, along with hiring and retaining the right people.

Within our Promotional Solutions segment, the markets for business forms and promotional products are intensely competitive and highly fragmented. Current and potential competitors include traditional storefront printing companies, office superstores, wholesale printers, online printing companies, small business product resellers, and providers of custom apparel and gifts. The competitive landscape for online suppliers continues to be challenging as new businesses enter the space.

We can provide no assurance that we will be able to compete effectively against current and future competitors. Our competitors may develop better products or technologies and may be able to adapt more quickly to new or emerging technologies and changes in customer requirements. Continued competition could result in price reductions, reduced profit margins and/or loss of customers, all of which would have an adverse effect on our results of operations and cash flows.

If we do not adapt to changes in technology in a timely and cost-effective manner, we could lose clients or have trouble attracting new clients, and our ability to grow may be limited.

Rapid, significant, and disruptive technological changes impact the markets for our products and services, including changes in payment and internet browser technologies and the use of artificial intelligence and machine learning, as well as developments in technologies supporting our regulatory and compliance obligations and in-store, digital, mobile and social commerce. The introduction of competing products and services using new technologies, the evolution of industry standards or the introduction of more attractive products or services, including continued increases in the digitization of payments, could make some of our products and services less desirable, or even obsolete. Our ability to enhance our current products and services and to develop and introduce innovative products and services will significantly affect our future success. The impact is magnified by the intense competition we face. To be successful, our technology-based products and services must keep pace with technological developments and evolving industry standards, address the ever-changing and increasingly sophisticated needs of our customers, and achieve market acceptance. Additionally, we must differentiate our service offerings from those of our competitors and from the in-house capabilities of our customers. We could lose current and potential customers if we are unable to develop products and services that meet changing demands in a timely manner. Additionally, we must continue to develop our skills, tools and capabilities to capitalize on existing and emerging technologies, and this requires significant investment, takes

considerable time and ultimately, may not be successful. Any of the foregoing risks could result in harm to our business, results of operations and growth prospects.

The use of checks and business forms is declining and we may be unable to offset the decline with profitable revenue growth.

Checks continue to be a significant portion of our business, accounting for 32.9% of our consolidated revenue in 2023, and providing a significant amount of the cash flows we invest in our growth businesses. We sell checks for personal and business use and believe that there will continue to be demand for personal and business checks for the foreseeable future, although the total number of checks written in the U.S. has been in decline since the 1990s. We expect that the number of checks written will continue to decline due to the digitization of payments, including debit cards, credit cards, direct deposit, wire transfers, and other payment solutions, such as PayPal®, Apple Pay®, Square®, Zelle®, and Venmo®, as well as cryptocurrencies. In addition, the RTP® system run by The Clearing House Payments Company, LLC is a real-time payments system that currently reaches approximately 65% of U.S. bank accounts, and the U.S. Federal Reserve's real-time payments system, FedNow®, went live in July 2023.

The rate and the extent to which digital payments will replace checks, whether as a result of legislative developments, changing payment systems, personal preference or otherwise, cannot be predicted with certainty. Increased use of alternative payment methods, or our inability to successfully offset the secular decline in checks with new check supply clients or other sources of revenue, would have an adverse effect on our business, cash flows and results of operations.

The use of business forms has also been declining. Continual technological improvements, including the lower price and higher performance capabilities of personal computers, printers and mobile devices, have provided small business customers with alternative means to execute and record business transactions. Additionally, electronic transaction systems, off-the-shelf business software applications, web-based solutions and mobile applications have been designed to replace preprinted business forms. Greater acceptance of electronic signatures also has contributed to the overall secular decline in printed products. It is difficult to predict the pace at which these alternative products and services will replace standardized business forms. If small business preferences change rapidly and we are unable to develop new products and services with comparable operating margins, our results of operations would be adversely affected.

Our business depends on our strong and trusted brand, and any failure to maintain, protect and enhance our brand would hurt our business.

We have developed a strong and trusted brand that has contributed significantly to the success of our business. We believe that maintaining and promoting our brand in a cost-effective manner is critical to achieving widespread acceptance of our products and services, expanding our base of customers, and attracting and retaining top talent. We believe that the importance of brand recognition and trust is particularly essential for the success of our various service offerings because of the level of competition for these services. Customer awareness of our brand, as well as the perceived value of our brand, depends largely on the success of our marketing efforts, our ability to continue to provide useful, reliable, secure and innovative products and services, and our ability to maintain trust and be a technology leader. If we fail to successfully promote and maintain our brand or if we incur excessive expenses in this effort, our business could be materially and adversely affected. There is also the risk that adverse publicity, whether or not justified, could adversely affect our business. If our business partners or key employees are the subject of adverse news reports or negative publicity, our reputation may be tarnished and our results of operations could be adversely affected.

A component of our brand promotion strategy is building on our relationship of trust with our customers, which we believe can be achieved by providing a high-quality customer experience. We have invested, and will continue to invest, in website development, design and technology, and customer service and production operations. Our ability to provide a high-quality customer experience is also dependent on external factors, including the reliability and performance of our suppliers, telecommunications providers and third-party carriers. Our brand value also depends on our ability to protect and use our customers' data in a manner that meets expectations. The failure of our brand promotion activities to meet our expectations or the failure to provide a high-quality customer experience for any reason could adversely affect our ability to attract new customers and maintain customer relationships, which would adversely harm our business and results of operations.

Our cost reduction initiatives may not be successful.

Intense competition and secular declines in the use of checks and business forms compels us to continually improve our operating efficiency in order to maintain or improve profitability. Cost reduction initiatives have required, and will continue to require, up-front expenditures related to various actions, such as redesigning and streamlining processes, standardizing technology applications, further enhancing our strategic supplier sourcing arrangements, improving real estate utilization and funding employee severance benefits. We can provide no assurance that we will achieve future cost reductions or that we will do so without incurring unexpected or greater than anticipated expenditures. Moreover, we may find that we are unable to achieve business simplification and/or cost reduction goals without disrupting our business, negatively impacting efforts to grow our business or reducing the effectiveness of our sustainability practices. As a result, we may choose to delay or forgo certain cost

reductions as business conditions require. Failure to continue to improve our operating efficiency and to generate adequate savings to fund necessary investments could adversely affect our business if we are unable to remain competitive.

We may be unable to successfully identify future acquisitions, integrate past and future acquisitions or realize the anticipated benefits of the transactions.

We have completed many acquisitions, including the acquisition of First American Payment Systems, L.P. in June 2021, which was the largest acquisition in our history. In addition, we have, at times, purchased the operations of small business distributors with the intention of growing revenue in our dealer channels. We have devoted significant management attention and resources to integrating the business practices and operations of our acquisitions.

The integration of any acquisition involves numerous risks, including, among others:

- the inability to successfully combine the businesses in a manner that permits us to achieve the revenue synergies and cost savings anticipated, which would result in the anticipated benefits of the acquisition not being realized in the anticipated timeframe or at all;
- difficulties and/or delays in assimilating operations and ensuring that a strong system of information security and controls is in place;
- the complexities of integrating a company with different products, services, markets and customers;
- performance shortfalls due to the diversion of management's attention from other business concerns;
- lost sales and customers as a result of certain customers, retail partners, financial institutions or other third parties deciding not to do business with us;
- unanticipated integration costs;
- complexities associated with implementing necessary controls for the acquired business activities to address our requirements as a public company;
- difficulties in identifying and eliminating redundant and underperforming functions and assets;
- the complexities of assimilating the acquired business into our corporate culture and management philosophies;
- unidentified issues not discovered during our due diligence process, including product or service quality issues, intellectual property issues, and tax or legal contingencies;
- failure to address legacy distributor account protection rights; and
- loss of key employees.

One or more of these factors could impact our ability to successfully operate, integrate or leverage an acquisition and could materially and adversely affect our business and financial results.

We may supplement sales-driven revenue growth with strategically targeted acquisitions over time. The time and expense associated with finding suitable businesses, technologies or services to acquire can be disruptive to our ongoing business and may divert management's attention. We cannot predict whether suitable acquisition candidates can be identified or acquired on acceptable terms or whether any acquired products, technologies or businesses will contribute to our revenue or earnings to any material extent. We may need to seek additional financing for larger acquisitions, which would increase our debt obligations, and such financing may not be available on terms that are favorable to us. Additionally, acquisitions may result in additional contingent liabilities, additional amortization expense, and/or future non-cash asset impairment charges related to acquired intangible assets and goodwill, and thus, could adversely affect our business, results of operations and financial condition.

Our inability to complete certain divestitures or the effects of divesting a business could have a material adverse effect on our business and financial results.

From time to time, we may divest businesses that do not meet our strategic objectives. For instance, we recently completed the exit from our web hosting business, and we are in the process of exiting our payroll and human resources services business. We may not be able to complete desired divestitures on favorable terms. Losses on the sales of, or lost earnings from, those businesses could negatively affect our profitability and margins. Additionally, we may incur asset impairment charges related to potential divestitures that reduce our profitability.

Our divestiture activities may also present operational risks, including the diversion of management's attention from our other businesses, difficulties separating personnel and systems, the need to provide transition services to buyers, adverse effects on existing business relationships with suppliers and customers, and indemnities and potential disputes with the buyers. Any of these factors could adversely affect our business, results of operations and financial condition.

OPERATIONAL RISKS

Security breaches, computer malware or other cyberattacks involving the confidential information of our customers, employees or business partners could substantially damage our reputation, subject us to litigation and enforcement actions, and substantially harm our business and results of operations.

Information security risks have increased in recent years, in part because of the proliferation of new technologies and an increase in remote work arrangements, as well as the increased sophistication and activities of hackers, terrorists and activists. We use internet-based channels that collect customers' financial account and payment information, as well as other sensitive information, including proprietary business information and personally identifiable information of our customers, employees, contractors, suppliers and business partners. Each year, we process hundreds of millions of records containing data related to individuals and businesses. We also provide services that are instrumental in supporting our customers and their businesses, such as merchant services and remittance processing. Cybersecurity is one of the top risks identified by our Enterprise Risk Management Committee, as technology-based organizations such as ours are vulnerable to targeted attacks aimed at exploiting network and system weaknesses.

The secure and uninterrupted operation of our networks and systems, as well as the processing, maintenance and confidentiality of the sensitive information that resides on our systems, is critical to our business operations and strategy. We have a risk-based information/cybersecurity program dedicated to protecting our data and solutions. We employ a defense-in-depth strategy, utilizing the concept of security layers and the CIA (confidential, integrity and availability) triad model. Computer systems and networks are, by nature, vulnerable to unauthorized access. An accidental or willful security breach could result in unauthorized access and/or use of customer information, including consumers' personally identifiable information or, in some cases, the protected health information of certain individuals. Our security measures could be breached by third-party action, computer viruses, accidents, employee or contractor error, or malfeasance by rogue employees. Individuals or third parties may be able to circumvent controls and/or exploit vulnerabilities that may exist, resulting in the disclosure or misuse of sensitive business and personal customer or employee information and data.

We depend on a number of third parties, including vendors, developers and partners, that are critical to our business and to which we may grant access to our customer or employee data. We have established a vendor security program that assesses the risk of these partners, and certain of our third-party relationships are subject to security requirements as specified in written contracts. However, we cannot control the actions of our third-party providers, and any cyberattacks or security breaches they experience could adversely affect our ability to service our customers or otherwise conduct our business.

Because techniques used to obtain unauthorized access, disable or degrade service, or sabotage computer systems change frequently, may be difficult to detect immediately, and generally are not recognized until they are launched against a target, we may be unable to implement adequate preventive measures. Unauthorized parties may also attempt to gain access to our systems or facilities through various means, including hacking into our systems or facilities, fraud, trickery or other means of deceiving employees and contractors. Additionally, our customers and employees have been and will continue to be targeted by threat actors using social engineering techniques to obtain confidential information or using fraudulent "phishing" emails to introduce malware into the environment. To-date, these various threats and incidents have not materially impacted our customers, our business or our financial results. However, our technologies, systems and networks are likely to be the target of future attacks due to the increasing threat landscape for all technology businesses, and we can provide no assurance that future incidents will not be material.

Despite our significant cybersecurity systems and processes, a party that circumvents our security measures could misappropriate our own, our customers' or our partners' personal or proprietary information, cause interruption in our operations, damage our computers or those of our users, or otherwise damage our reputation, all of which could deter clients and consumers from ordering our products and services and result in the termination of client contracts. Additionally, it is possible that there could be vulnerabilities that impact large segments of mobile, computer or server architecture. Any of these events would adversely affect our business, financial condition and results of operations.

In addition, if we were to experience a material information security breach, we may be required to expend significant amounts of management time and financial resources to remedy, protect against or mitigate the effects of the breach, and we may not be able to remedy the situation in a timely manner, or at all. Furthermore, under payment card association rules and our contracts with debit and credit card processors, if there is a breach of payment card information that we store or that is stored by third parties with which we do business, we could be liable to the payment card issuing banks for their cost of issuing new cards and other related expenses. We could also lose our ability to accept and process credit and debit card payments, which would likely result in the loss of customers and the inability to attract new customers. We could also be exposed to time-consuming and expensive litigation, government inquiries and/or enforcement actions. If we are unsuccessful in defending a claim regarding information security breaches, we may be forced to pay damages, penalties and fines, and our insurance coverage may not be adequate to compensate us fully for any losses that may occur. Contractual provisions with third parties, including cloud service providers, may limit our ability to recover losses resulting from the security breach of a business partner.

There are international, federal and state laws and regulations requiring companies to notify individuals of information security breaches involving their personal data, the cost of which would negatively affect our financial results. These mandatory disclosures regarding an information security breach often lead to widespread negative publicity. If we were required to make such a disclosure, it may cause our clients and customers to lose confidence in the effectiveness of our information security measures. Likewise, general publicity regarding information security breaches at other companies could lead to the perception among the general public that e-commerce is not secure. This could decrease traffic to our websites, negatively affect our financial results and limit future business opportunities.

Interruptions to our website operations or information technology systems or the failure to maintain our information technology platforms could damage our reputation and harm our business.

The satisfactory performance, reliability and availability of our information technology systems, and those of our third-party service providers, is critical to our reputation and our ability to attract and retain customers. We could experience temporary interruptions in our websites, transaction and payment processing systems, network infrastructure, service technologies, printing production facilities or customer service operations for a variety of reasons, including, among others, human error, software errors or design faults, security breaches, power loss, telecommunications failures, equipment failures, electrical disruptions, labor issues, vandalism, fire, flood, extreme weather, terrorism and other events beyond our control. In addition, certain of the services we deliver to the payments technology market are designed to process complex transactions and deliver reports and other information on those transactions, all at very high volumes and processing speeds. Any failure to deliver an effective and secure product or any performance issue that arises with a new product or service could result in significant processing or reporting errors or other losses.

We have invested, and will continue to invest, significant resources to build out, maintain and improve our technology platforms. Any disruptions, delays or deficiencies in the design, implementation or operation of our systems, particularly any disruptions, delays or deficiencies that impact our operations, could adversely affect our ability to effectively run and manage our business. Frequent or persistent interruptions in our operations could cause customers to believe that our products and services are unreliable, leading them to switch to our competitors or to avoid our products and services.

A substantial portion of our applications reside in a cloud-based environment. While we maintain redundant systems and backup databases and applications software designed to provide continuous access to cloud services, it is possible that access to our software capabilities could be interrupted and our disaster recovery planning may not account for all eventualities. The failure of our systems could interfere with the delivery of products and services to our customers, impede our customers' ability to do business and result in the loss or corruption of critical data. In addition to the potential loss of customers, we may be required to incur additional development costs and divert technical and other resources, and we may be the subject of negative publicity and/or liability claims.

If any of our significant information technology systems suffer severe damage, disruption or shutdown, and our disaster recovery and business continuity plans do not effectively resolve the issue in a timely manner, our results of operations would be adversely affected, and our business interruption insurance coverage may not be adequate to compensate us fully for any losses we may incur. Moreover, to the extent that any system failure or similar event results in damages to our customers or contractual counterparties, those customers and contractual counterparties could seek compensation from us for their losses, and those claims, even if unsuccessful, would likely be time-consuming and costly for us to address.

We rely on third parties and their systems for a variety of services, including significant information technology services, and the failure of these third parties to provide these services could disrupt our business.

We have entered into agreements with third-party providers for information technology services, including telecommunications, network server, cloud computing and transaction processing services. In addition, we have agreements with companies to provide services related to our online payment solutions, including financial institutions that provide clearing services in connection with our merchant services settlement activities, and we have outsourced certain activities, including portions of our finance and procurement functions. A service provider's ability to provide services could be disrupted for a variety of reasons, including, among others, human error, software errors or design faults, security breaches, power loss, telecommunications failures, equipment failures, electrical disruptions, labor issues, vandalism, fire, flood, extreme weather, terrorism and other events beyond their control. In the event that one or more of our service providers is unable to provide adequate or timely services, our ability to deliver products and services to our customers could be adversely affected. Although we believe we have taken reasonable steps to protect our business through contractual arrangements with our service providers, we cannot completely eliminate the risk of disruption in service. Any significant disruption could harm our business, including damage to our brand and loss of customers. Additionally, although we believe that most of these services are available from numerous sources, a failure to perform by one or more of our service providers could cause a material disruption in our business while we obtain an alternative service provider. The use of substitute third-party providers could also result in increased expense. Additionally, while we have policies and procedures for managing these relationships, they inherently involve a lesser degree of control over business operations, governance and compliance, thereby potentially increasing our financial, legal, reputational and operational risk.

If we are unable to attract, motivate and retain key personnel and other qualified employees, our business and results of operations could be adversely impacted.

We operate in a rapidly changing technological environment that requires a wide ranging set of expertise and intellectual capital. To successfully compete and grow, we must recruit, develop, motivate and retain personnel who can provide the needed expertise across the organization. In addition, we must develop our personnel to fulfill succession plans capable of maintaining continuity in the midst of the inevitable unpredictability of human capital.

Competition for employees is intense. We have implemented various human capital initiatives, including employee wellness initiatives, employee resource groups and a revised performance management process, to make Deluxe an attractive place to work. As remote working arrangements have become more widely accepted, it is more challenging for us to maintain and enhance our corporate culture and to navigate the flexible working arrangements that employees may demand. Our work environment may not meet the needs or expectations of our employees or may be perceived as less favorable compared to other companies' policies, which could negatively impact our ability to hire and retain qualified personnel. We can provide no assurance that key personnel, including our executive officers, will continue to be employed, or that in the event we have to replace key employees, that labor costs will not increase. Failure to retain or attract key personnel could have a material adverse effect on our business, financial condition and results of operations.

Increases in prices and declines in the availability of materials and other services have adversely affected, and could continue to adversely affect, our operating results.

We are subject to risks associated with the cost and availability of paper, plastics, ink, promotional materials, merchant services point-of-sale equipment and other raw materials, as well as various third-party services we utilize, including delivery and data provider services. In addition, from time-to-time, the card networks, including Visa® and Mastercard®, increase the fees that they charge processors. Increased levels of inflation have resulted in cost increases for certain of the materials and services we utilize. Inflationary pressures could continue into fiscal 2024, and this trend could have a material adverse impact if inflation rates significantly exceed our ability to achieve price increases or if such price increases adversely impact demand for our products. We have, at times, experienced supply chain disruptions, including impacts on the supply of certain printed products in our Promotional Solutions segment, and continuing global unrest could cause further disruption in the global supply chain. We continue to closely monitor our supply chain to promptly address any delays or disruptions, but we can provide no assurance that our ability to provide products to our customers will not be adversely impacted if our supply chain is compromised.

Paper costs represent a significant portion of our materials expense. Paper is a commodity and its price has been subject to volatility due to supply and demand in the marketplace, as well as volatility in the raw material and other costs incurred by paper suppliers. There are also relatively few paper suppliers and these suppliers are under financial pressure as paper use declines. As such, when our suppliers increase paper prices, we may not be able to obtain better pricing from alternative suppliers.

We depend upon third-party providers for delivery services and for certain outsourced products. Events resulting in the inability of these third parties to perform their obligations, such as work slowdowns, extended labor strikes, labor shortages or inclement weather, could adversely impact our results of operations by requiring us to secure alternate providers at higher costs. Postal rates are dependent on the operating efficiency of the U.S. Postal Service ("USPS") and on legislative mandates imposed upon the USPS. Postal rates have increased in recent years and the USPS has incurred significant financial losses. This may result in continued changes to the breadth and/or frequency of USPS mail delivery services. In addition, fuel costs have fluctuated over the past several years. Increases in fuel costs increase the costs we incur to deliver products to our customers, as well as the price we pay for outsourced products.

Competitive pressures and/or contractual arrangements may inhibit our ability to reflect increased costs in the price of our products and services. Any of the foregoing risks could result in harm to our business and results of operations.

We are subject to customer payment-related risks and payment card network rules, which could adversely affect our business and financial results.

We may be liable for fraudulent transactions conducted on our websites, such as the use of stolen credit card numbers, and we have potential liability for fraudulent electronic payment transactions or credits initiated by merchants or others. While we do have safeguards in place, we cannot prevent all fraudulent transactions. To date, we have not incurred material losses from payment-related fraud. However, such transactions negatively impact our results of operations and could subject us to penalties from payment card networks for inadequate fraud protection.

We also may be liable if our merchants or other parties that have obligations to deliver goods or services to cardholders fail to satisfy their obligations. For example, we may be subject to contingent liability for transactions originally acquired by us that are disputed by the cardholder and charged back to the merchants or other parties. These disputes could arise from fraud, misuse, unintentional use, settlement delay or failure, insufficiency of funds, returns, a failure to perform a service, or other reasons. If we are unable to collect this amount from the merchant or other party because of the merchant's or other party's insolvency or other reasons, we will bear the loss for the amount of the refund paid to the cardholder. Although we have an active

program to manage our credit risk, a default on such obligations by one or more of our merchants or others could have a material adverse effect on our business, results of operations and financial condition.

In addition, in order to provide our transaction processing services, we are registered with Visa and Mastercard and other networks as members or service providers for member institutions. As such, we are subject to card association and network rules. Changes to the payment card networks' rules or how they are interpreted could have a significant impact on our business and financial results. For example, changes in the rules regarding chargebacks may affect our ability to dispute chargebacks and the amount of losses we incur from chargebacks. Changes in network rules may also increase the cost of, impose restrictions on, or otherwise impact the development of, our retail point-of-sale solutions, which may negatively affect their deployment and adoption. Any changes to or interpretations of the network rules that are inconsistent with the way we currently operate may require us to make changes to our business that could be costly or difficult to implement and that could adversely affect our results of operations.

Revenue from the sale of services to merchants that accept Visa and Mastercard are dependent upon our continued Visa and Mastercard registrations, financial institution sponsorship and, in some cases, continued membership in certain card networks.

In order to provide our Visa and Mastercard transaction processing services, we must be either a direct member or be registered as a merchant processor or service provider of Visa and Mastercard. Registration as a merchant processor or service provider is dependent upon our being sponsored by members of each organization in certain jurisdictions. If our sponsor financial institution in any market should stop providing sponsorship for us, we would need to find another financial institution to provide those services or we would need to attain direct membership with the card networks, either of which could prove to be difficult and expensive. If we are unable to find a replacement financial institution to provide sponsorship or attain direct membership, we may no longer be able to provide processing services to affected customers, which would negatively affect our business and results of operations. In addition, some agreements with our financial institution sponsors give them substantial discretion in approving certain aspects of our business practices, including our solicitation, application and qualification procedures for merchants and the terms of our agreements with merchants. Our sponsors' discretionary actions under these agreements could have a material adverse effect on our business and results of operations.

If we fail to comply with the applicable requirements of the card networks, the card networks could seek to fine us, suspend us or terminate our registrations or membership. The termination of our registrations or our membership or our status as a service provider or a merchant processor would have a material adverse effect on our business, financial condition and results of operations. If a merchant or an independent sales organization ("ISO") customer fails to comply with the applicable requirements of the card associations and networks, we or the merchant or ISO could be subject to a variety of fines or penalties that may be levied by the card associations or networks. If we cannot collect or pursue collection of such amounts from the applicable merchant or ISO, we may have to bear the cost of such fines or penalties, negatively impacting our results of operations.

LEGAL AND COMPLIANCE RISKS

Governmental regulation is continuously evolving and could limit or harm our business.

We are subject to numerous international, federal, state and local laws and regulations that affect our business activities in several areas, including, but not limited to, labor, advertising, taxation, data privacy and security, digital content, consumer reports, consumer protection, merchant processing, online payment services, real estate, e-commerce, intellectual property, health care, environmental matters, and workplace health and safety. In addition, legal or regulatory measures to address climate change may impact us in the near future. The complexity of complying with existing and new laws and regulations is significant, and regulators may adopt new laws or regulations at any time.

The various regulatory requirements to which we are subject could impose significant limitations on our business activities, require changes to our business, restrict our use or storage of personal information, or cause changes in our customers' purchasing behavior, which may make our business more costly and/or less efficient and may require us to modify our current or future products, services, systems or processes. We cannot quantify or predict with any certainty the likely impact of such changes on our business, prospects, financial condition or results of operations.

Portions of our business operate within highly regulated industries and our business results could be significantly affected by the laws and regulations to which we are subject. For example, international, federal and state laws and regulations regarding the protection of certain consumer information require us to develop, implement and maintain policies and procedures to protect the security and confidentiality of consumers' personal information. Portions of our business are subject to regulations affecting payment processing, including merchant processing, ACH, remote deposit capture and lockbox services. These laws and regulations require us to develop, implement and maintain certain policies and procedures related to payments. We are also subject to additional requirements in certain of our contracts with financial institution clients that are often more restrictive than the regulations, as well as confidentiality clauses in certain of our contracts related to small businesses' customer information. These regulations and agreements typically limit our ability to use or disclose personal information for other than the purposes

originally intended, which could limit business opportunities. Proposed privacy and cybersecurity regulations may also increase the cost of compliance for the protection of collected data. The complexity of compliance with these various regulations may increase our cost of doing business and may affect our clients, reducing their discretionary spending and thus, reducing their capacity to purchase our products and services.

Due to our increased use of the internet for sales and marketing, laws specifically governing digital commerce, the internet, mobile applications, search engine optimization, behavioral advertising, privacy and email marketing may have an impact on our business. Existing and future laws governing issues such as digital and social marketing, privacy, consumer protection or commercial email may limit our ability to market and provide our products and services. Changing data protection regulations may increase the cost of compliance in servicing domestic and international markets for our wholesale and retail business services channels. More restrictive rules, such as new privacy laws, consumer protection "dark patterns" restrictions, search engine marketing restrictions, "anti-spam" regulations or email privacy rules, could decrease marketing opportunities, decrease traffic to our websites and/or increase the cost of obtaining new customers.

Because of additional regulatory costs, financial institutions may continue to put significant pricing pressure on their suppliers, including their check and service providers. The increase in cost and profit pressure may also lead to further consolidation of financial institutions. Additionally, some financial institutions do not permit offers of add-on services, such as bundled products, fraud/identity protection or expedited check delivery, to their customers. It would have an adverse impact on our results of operations if we were unable to market such services to consumers or small businesses through the majority of our financial institution clients. Additionally, as our product and service offerings become more technologically focused, and with expanded regulatory expectations for supervision of third-party service providers, additional portions of our business could become subject to direct federal regulation and/or examination. This would increase our cost of doing business and could slow our ability to introduce new products and services and otherwise adapt to a rapidly changing business environment.

Third-party claims could result in costly and distracting litigation and, in the event of an unfavorable outcome, could have an adverse effect on our business, financial condition and results of operations.

From time to time, we are involved in claims, litigation and other proceedings related to the conduct of our business, including purported class action litigation. Such legal proceedings may include claims related to our employment practices; claims alleging breach of contractual obligations; claims asserting deceptive, unfair or illegal business practices; claims alleging violations of consumer protection-oriented laws; claims related to legacy distributor account protection rights; or claims related to environmental matters. In addition, third parties may assert patent and other intellectual property infringement claims against us and/or our clients, which could include aggressive and opportunistic enforcement of patents by non-practicing entities. Any such claims could result in litigation against us and could also result in proceedings being brought against us by various federal and state agencies that regulate our businesses. The number and significance of these claims and proceedings has increased as our businesses have evolved and expanded in scope. These claims, whether successful or not, could divert management's attention, result in costly and time-consuming litigation, or both. Accruals for identified claims or lawsuits are established based on our best estimate of the probable liability. However, we cannot accurately predict the ultimate outcome of any such proceedings due to the inherent uncertainties of litigation and other dispute resolution mechanisms. Any unfavorable outcome of a material claim or material litigation could require the payment of monetary damages or fines, attorneys' fees or costly and undesirable changes to our products, features or business practices, which would result in a material adverse effect on our business, financial condition and results of operations.

We may be unable to protect our rights in intellectual property, which could harm our business and ability to compete.

We rely on a combination of trademark and copyright laws, trade secret and patent protection, and confidentiality and license agreements to protect our trademarks, software and other intellectual property. These protective measures afford only limited protection. Despite our efforts to protect our intellectual property, third parties may infringe or misappropriate our intellectual property or otherwise independently develop substantially equivalent products or services that do not infringe on our intellectual property rights. Policing unauthorized use of our intellectual property is difficult. We may be required to spend significant resources to protect our trade secrets and to monitor and police our intellectual property rights. The loss of intellectual property protection or the inability to secure or enforce intellectual property protection could harm our business and ability to compete.

FINANCIAL RISKS

Economic conditions may adversely affect trends in business and consumer spending, which may adversely impact demand for our products and services.

Economic conditions have affected, and will continue to affect, our results of operations and financial position. Current and future economic conditions that affect inflation, business and consumer spending, including levels of business and consumer confidence, unemployment levels, consumer spending and the availability of credit, as well as uncertainty or volatility in our customers' businesses, may adversely affect our business and results of operations. A challenging economic environment could cause existing and potential customers to not purchase or to delay purchasing our products and services. Continued inflationary

pressures could negatively impact our customers' ability to purchase our products and services, thereby negatively impacting our revenue and results of operations.

A significant portion of our business relies on small business spending. We believe that small businesses are more likely to be significantly affected by economic conditions than larger, more established companies. During a sluggish economy, it may be more difficult for small businesses to obtain credit and they may choose to spend their limited funds on items other than our products and services. As such, the level of small business confidence, the rate of small business formations and closures, and the availability of credit to small businesses all impact our business.

A significant portion of our business also relies upon the health of the financial services industry. As a result of global economic conditions in past years, a number of financial institutions sought additional capital, merged with other financial institutions and, in some cases, failed. The failure of one or more of our larger financial institution clients, or large portions of our customer base, could adversely affect our operating results. In addition to the possibility of losing a significant client, the inability to recover prepaid product discount payments made to one or more of our larger financial institution clients, or the inability to collect accounts receivable or contractually required contract termination payments, could have a negative impact on our results of operations.

There may also be an increase in financial institution mergers and acquisitions during periods of economic uncertainty or as a result of other factors affecting the financial services industry. Such an increase could adversely affect our operating results. Often the newly combined entity seeks to reduce costs by leveraging economies of scale in purchasing, including its check supply and business services contracts. This results in providers competing intensely on price in order to retain not only their previous business with one of the financial institutions, but also to gain the business of the other party in the combined entity. Although we devote considerable effort toward the development of a competitively-priced, high-quality selection of products and services for the financial services industry, there can be no assurance that significant financial institution clients will be retained or that the impact of the loss of a significant client can be offset through the addition of new clients or by expanded sales to our remaining clients.

Global events, such as outbreaks of illnesses, pandemics like COVID-19, or other political and economic instability, significantly increase economic uncertainty. Given the ongoing and dynamic nature of these events, we cannot predict the impact on our business, financial position or results of operations. Even after such impacts subside, the U.S. economy may experience a recession, and our business could be adversely affected by a prolonged recession.

Asset impairment charges would have a negative impact on our results of operations.

Goodwill represented 46.4% of our total assets as of December 31, 2023. On at least an annual basis, we assess whether the carrying value of goodwill is impaired. This analysis considers several factors, including economic, market and industry conditions. Circumstances that could indicate a decline in the fair value of one or more of our reporting units include, but are not limited to, the following:

- a downturn in economic conditions that negatively affects our actual and forecasted operating results;
- changes in our business strategy, structure and/or the allocation of resources;
- the failure of our growth strategy;
- the inability of our acquisitions to achieve expected operating results;
- changes in market conditions, including increased competition;
- the loss of significant customers;
- a decline in our stock price for a sustained period; or
- a material acceleration of order volume declines for checks or business forms.

Such situations may require us to record an impairment charge for a portion of goodwill. We are also required to assess the carrying value of other long-lived assets, including intangible assets. Information regarding our 2023 impairment analyses can be found under the caption "Note 8: Fair Value Measurements" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. We have, in the past, and may again in the future, be required to write-down the value of some of our assets, and these write-downs have been, and could in the future be, material to our results of operations. If we are required to record additional asset impairment charges for any reason, our consolidated results of operations would be adversely affected.

Our variable-rate indebtedness exposes us to interest rate risk.

Borrowings under our credit facility, including our secured term loan facility, are subject to variable rates of interest and expose us to interest rate risk. If interest rates were to continue to increase, our interest expense would increase, negatively affecting earnings and reducing cash flows available for working capital, capital expenditures and other investments. To address the risk associated with variable-rate debt, we entered into interest rate swaps to convert a portion of our variable-rate debt to a fixed rate. As of December 31, 2023, \$357.5 million of our outstanding debt was subject to variable interest rates.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 1C. CYBERSECURITY

We are a trusted partner to enterprises of all sizes, and this is a responsibility we take seriously. The secure and uninterrupted operation of our networks and systems, as well as the processing, maintenance and confidentiality of the sensitive information that resides on our systems, is critical to our business operations and strategy. Each year, we process hundreds of millions of records containing data related to individuals and businesses. In addition, certain of our products are hosted solutions, and the amount of data we store for our customers on our servers, including personal, important business and other potentially sensitive information, has been increasing. Technology-based organizations such as ours are vulnerable to targeted attacks aimed at exploiting network and system applications or weaknesses. A successful cyberattack could result in the disclosure or misuse of sensitive business and personal information and data, cause interruptions in our operations, damage our reputation and deter clients and consumers from ordering our products and services. It could also result in litigation, the termination of client contracts, government inquiries and/or enforcement actions. Any of these events could have a material adverse effect on our business, prospects, results of operations and/or financial position.

We have implemented a risk-based information/cybersecurity program dedicated to protecting our data and solutions. Our privacy policies, together with associated controls and procedures, provide a comprehensive framework to inform and guide the handling of data. We employ a defense-in-depth strategy, utilizing the concept of security layers and the CIA (confidential, integrity and availability) triad model. Our information security program is led by our Chief Information Security Officer ("CISO") and the Information Security department, which establishes the policies, standards and strategies to manage security risk. The CISO has more than two decades of experience with global technology organizations across multiple industries. We devote significant resources to addressing security vulnerabilities through enhancing security and reliability features in our products and services, providing employee security training, monitoring our operations 24 hours a day and 7 days a week, reviewing and auditing our systems against independent security control frameworks, and performing security maturity assessments. We may, from time to time, engage third-party consultants, legal advisors or audit firms in evaluating and testing our risk management systems and assessing and remediating certain potential cybersecurity incidents. These assessments inform our annual and multi-year cybersecurity strategies and our product security plans. In addition, our operations depend on a number of third parties, including vendors, developers and partners, that are critical to our business and to which we may grant access to our customer or employee data. We conduct due diligence on these third parties with respect to their security and business controls, and we have established monitoring procedures in an effort to mitigate risks related to data breaches or other security incidents originating from these third parties.

We have an Enterprise Risk Management Committee that is led by our Assurance and Risk Advisory Services group, our Chief Financial Officer and our Chief Administrative Officer, with participation from our executive leadership team and senior-level staff, including our Chief Compliance Officer and the CISO. This committee assesses and monitors our top enterprise risks, including cybersecurity, and provides quarterly updates to the board of directors. Our CISO also provides periodic updates to the finance and audit committee of the board of directors, which is responsible for ensuring that we have implemented appropriate risk reviews and discusses, with management and the board, our financial and enterprise risk assessment and risk management practices and policies, as well as reports to the board any material risks identified in the course of performing its responsibilities.

In the event a cybersecurity incident is identified, our Cybersecurity Incident Response team will act in accordance with our incident management plans to communicate to our executive leadership team and to coordinate the response to any incident. Our Chief Executive Officer, Chief Financial Officer, General Counsel, Chief Technology and Digital Officer, CISO and Chief Compliance Officer are responsible for assessing such incidents for materiality, ensuring that any required notification or communication occurs and determining, among other things, whether any prohibition on the trading of our common stock by insiders should be imposed prior to the disclosure of information about a material cybersecurity event. We maintain cybersecurity insurance coverage that insures us for costs resulting from cyberattacks, although this coverage may not reimburse us for all losses.

As of the date of this report, we are not aware of any cybersecurity incidents that have materially affected or are reasonably likely to materially affect our business strategy, results of operations or financial condition and that are required to be reported in this Form 10-K. For further discussion of the risks associated with cybersecurity incidents see Item 1A, "Operational Risks – Security breaches, computer malware or other cyberattacks involving the confidential information of our customers, employees or business partners could substantially damage our reputation, subject us to litigation and enforcement actions, and substantially harm our business and results of operations."

ITEM 2. PROPERTIES

As of December 31, 2023, we occupied 37 facilities throughout the U.S. and 3 facilities in Canada, where we conduct printing and fulfillment, payment processing, call center, data center and administrative functions. Because of our shared services approach to most of our business functions, many of our facilities are utilized for the benefit of more than one of our business segments. Approximately 20% of our facilities are owned, while the remaining 80% are leased. Our facilities have a combined floor space of approximately 2 million square feet. None of our owned properties are mortgaged or held subject to any significant encumbrance. We believe that existing leases will be renegotiated as they expire or that suitable alternative properties will be leased on acceptable terms. We also believe that our properties are sufficiently maintained and are adequate and suitable for our business needs as presently conducted. We reduced the number of facilities by 13 during 2023, driven by the continued assessment of our real estate footprint and business exits.

ITEM 3. LEGAL PROCEEDINGS

We record provisions with respect to identified claims or lawsuits when it is probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Claims and lawsuits are reviewed quarterly and provisions are taken or adjusted to reflect the status of a particular matter. We believe the recorded reserves in our consolidated financial statements are adequate in light of the probable and estimable outcomes. Recorded liabilities were not material to our financial position, results of operations or liquidity, and we do not believe that any of the currently identified claims or litigation will materially affect our financial position, results of operations or liquidity upon resolution. However, litigation is subject to inherent uncertainties, and unfavorable rulings could occur. If an unfavorable ruling were to occur, it may cause a material adverse impact on our financial position, results of operations or liquidity in the period in which the ruling occurs or in future periods.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

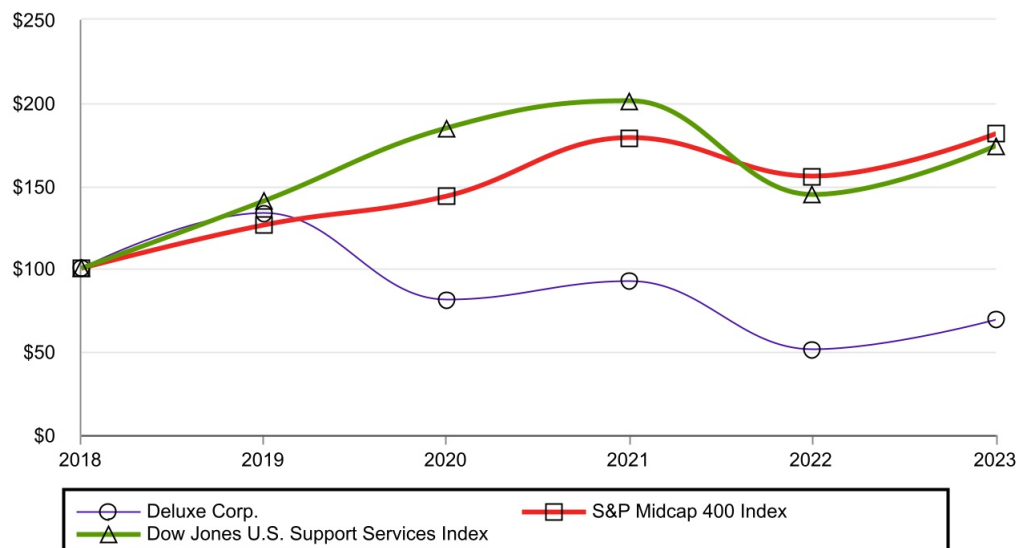
ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the New York Stock Exchange under the symbol DLX. Dividends are declared by our board of directors on a quarterly basis, and therefore, are subject to change. As of December 31, 2023, the number of shareholders of record was 4,897, excluding shareholders whose shares are held in the name of various dealers, clearing agencies, banks, brokers and other fiduciaries.

In October 2018, our board of directors authorized the repurchase of up to \$500.0 million of our common stock. This authorization has no expiration date. No shares were repurchased under this authorization during the fourth quarter of 2023 and \$287.5 million remained available for repurchase as of December 31, 2023.

The table below compares the cumulative total shareholder return on our common stock for the last five fiscal years with the cumulative total return of the S&P MidCap 400 Index and the Dow Jones U.S. Support Services ("DJUSIS") Index.

**COMPARISON OF FIVE-YEAR CUMULATIVE TOTAL RETURN
ASSUMES INITIAL INVESTMENT OF \$100
DECEMBER 2023**



The graph assumes that \$100 was invested on December 31, 2018 in each of Deluxe common stock, the S&P MidCap 400 Index and the DJUSIS Index, and that all dividends were reinvested.

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ITEM 6. [RESERVED]

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

Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") includes the following sections:

- [Executive Overview](#) that discusses what we do, our operating results at a high level and our financial outlook for the upcoming year;
- [Consolidated Results of Operations; Restructuring and Integration Expense; and Segment Results](#) that includes a more detailed discussion of our revenue and expenses;
- [Cash Flows and Liquidity and Capital Resources](#) that discusses key aspects of our cash flows, financial commitments, capital structure and financial position; and
- [Critical Accounting Estimates](#) that discusses the estimates that involve a significant level of uncertainty and have had or are reasonably likely to have a material impact on our financial condition or results of operations.

Please note that this MD&A discussion contains forward-looking statements that involve risks and uncertainties. Part I, Item 1A of this report outlines known material risks and important information to consider when evaluating our forward-looking

statements. The Private Securities Litigation Reform Act of 1995 (the "Reform Act") provides a "safe harbor" for forward-looking statements to encourage companies to provide prospective information. When we use the words or phrases "should result," "believe," "intend," "plan," "are expected to," "targeted," "will continue," "will approximate," "is anticipated," "estimate," "project," "outlook," "forecast" or similar expressions in this Annual Report on Form 10-K, in future filings with the Securities and Exchange Commission ("SEC"), in our press releases, investor presentations and in oral statements made by our representatives, they indicate forward-looking statements within the meaning of the Reform Act.

This MD&A includes financial information prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP"). In addition, we discuss free cash flow, net debt, liquidity, adjusted diluted earnings per share ("EPS"), consolidated adjusted earnings before interest, taxes, depreciation and amortization ("adjusted EBITDA") and consolidated adjusted EBITDA margin, all of which are non-GAAP financial measures. We believe that these non-GAAP financial measures, when reviewed in conjunction with GAAP financial measures, can provide useful information to assist investors in analyzing our current period operating performance and in assessing our future operating performance. For this reason, our internal management reporting also includes these financial measures, which should be considered in addition to, and not as superior to or as a substitute for, GAAP financial measures. We strongly encourage investors and shareholders to review our financial statements and publicly-filed reports in their entirety and not to rely on any single financial measure. Our non-GAAP financial measures may not be comparable to similarly titled measures used by other companies and therefore, may not result in useful comparisons. The reconciliation of our non-GAAP financial measures to the most directly comparable GAAP financial measures can be found in *Consolidated Results of Operations*.

The following discussion and analysis provides information we believe to be relevant to understanding our financial condition and results of operations. This discussion focuses on our financial results for the years ended December 31, 2023 and December 31, 2022. A discussion of our results of operations for the year ended December 31, 2022, as compared to the year ended December 31, 2021, is included in Part II, Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2022 ("the 2022 Form 10-K"), filed with the SEC on February 24, 2023, and is incorporated by reference into this Form 10-K. You should read the following discussion and analysis in conjunction with our consolidated financial statements and related notes presented in Part II, Item 8 of this report.

EXECUTIVE OVERVIEW

We help businesses deepen customer relationships through trusted, technology-enabled solutions that help businesses pay and get paid, accelerate growth and operate more efficiently. Our solutions include merchant services, marketing services and data analytics, treasury management solutions, promotional products, and fraud and security solutions, as well as customized checks and business forms. We support millions of small businesses, thousands of financial institutions and hundreds of the world's largest consumer brands. We are also a leading provider of checks and accessories sold directly to consumers. Our reach, scale and distribution channels position us to be a trusted business partner for our customers.

Our Strategy

A detailed discussion of our strategy can be found in Part I, Item 1 of this report. During the first quarter of 2023, we completed our 3-year corporate infrastructure modernization program with the implementation of the final major phase of our enterprise resource planning ("ERP") system. This effort required significant investment and management attention over the past 3 years. We expect that the new platform will now drive additional cost improvements and scale. We also made significant progress in our ongoing lockbox improvement efforts within our Payments segment, continuing to consolidate sites and shift work to optimize our operations. Having substantially completed our infrastructure modernization initiatives, we have shifted our focus to growth investments, primarily in Payments and Data Solutions, so that we can continue to drive scale, with the goal of growing profits faster than revenue. During 2023, adjusted EBITDA margin increased as compared to the prior year, as our operations continued to benefit from our disciplined pricing actions and overall cost management. We recently announced our North Star program, the goal of which is to further drive shareholder value by (1) expanding our EBITDA growth trajectory, (2) driving increased cash flow, (3) paying down debt, and (4) improving our leverage ratio. Further information can be found in *Restructuring and Integration Expense*.

During the first quarter of 2024, we realigned our organizational structure to better reflect our portfolio mix and offerings, and we updated our reportable segments to correspond with these changes. We did not operate under the new segment structure during 2023, and we continued to allocate resources and assess performance based on our current reportable segment structure. Information regarding our realigned reportable segments for the quarter ending March 31, 2024 can be found in Part I, Item 1 of this report.

Divestitures / business exits – In June 2023, we completed the sale of our North American web hosting and logo design businesses. These businesses generated annual revenue of approximately \$66 million during 2022, primarily in our Data Solutions segment. In September and December 2023, we executed agreements allowing for the conversion of our U.S. and Canadian payroll and human resources services customers to other service providers. These businesses generated annual revenue of approximately \$27 million in the Payments segment during 2023.

In May 2022, we completed the sale of our Australian web hosting business, and we also sold our Promotional Solutions strategic sourcing and retail packaging businesses during 2022. These businesses generated annual revenue of approximately \$24 million in our Data Solutions segment and approximately \$29 million in our Promotional Solutions segment during 2021.

We believe that these business exits allow us to focus our resources on the key growth areas of payments and data, while allowing us to optimize our operations. Further information regarding these business exits can be found under the caption "Note 6: Acquisition and Divestitures" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

2023 Financial Results

Cash flows and liquidity – Cash provided by operating activities for 2023 increased \$6.8 million as compared to 2022, driven by positive changes in working capital, pricing and cost saving actions, and a decrease of \$9.5 million in payments for cloud computing implementation costs related to the implementation of our ERP system, which was completed in early 2023. Growth in data-driven marketing and merchant services revenue also contributed to the increase in operating cash flow. Partially offsetting these increases in operating cash flow was a \$28.4 million increase in interest payments as a result of rising interest rates, as well as a \$9.5 million increase in employee bonus payments related to our 2022 operating performance and a \$9.3 million increase in income tax payments driven, in large part, by the timing of our federal tax payments. Operating cash flow was also negatively impacted by the continuing secular decline in checks, business forms and certain Promotional Solutions business accessories, inflationary pressures on hourly wages, materials and delivery, and the impact of business exits. Free cash flow increased \$10.7 million for 2023, as compared to 2022. Total debt was \$1.59 billion and net debt was \$1.52 billion as of December 31, 2023. We held cash and cash equivalents of \$72.0 million as of December 31, 2023, and liquidity was \$312.5 million. Our capital allocation priorities are to reduce our debt and net leverage, deliver high return internal investments and pay our dividend. We continue to responsibly invest the free cash flow generated by our Checks and Promotional Solutions businesses into Payments and Data Solutions, businesses that we believe can generate more robust growth over time. A reconciliation of free cash flow, net debt and liquidity to the comparable GAAP financial measures can be found in *Consolidated Results of Operations*.

2023 earnings vs. 2022 – Multiple factors drove the decrease in net income for 2023, as compared to 2022, including:

- increased investments in the business, primarily costs related to our technology infrastructure and a \$27.3 million increase in restructuring and integration expense as we continue to take actions to grow earnings and optimize our cost structure;
- a \$31.2 million increase in interest expense resulting from increasing interest rates on our variable-rate debt;
- the continuing secular decline in checks, business forms and some Promotional Solutions business accessories;
- inflationary pressures on hourly wages, materials and delivery; and
- the impact of business exits.

Partially offsetting these decreases in net income were the following factors:

- price increases in response to the inflationary environment;
- the benefit of actions taken to reduce costs, including workforce adjustments, marketing optimization and real estate rationalization;
- a \$15.7 million decrease in acquisition amortization, as certain of our assets are amortized using accelerated methods; and
- a \$13.1 million increase in gain on sale of businesses and long-lived assets, driven by our business exit activity.

Diluted EPS of \$0.59 for 2023, as compared to \$1.50 for 2022, reflects the decrease in net income as described in the preceding paragraphs, as well as higher average shares outstanding in 2023. Adjusted diluted EPS for 2023 was \$3.32 compared to \$4.08 for 2022, and excludes the impact of non-cash items or items that we believe are not indicative of our current period operating performance. The decrease in adjusted diluted EPS was driven by the increase in interest expense resulting from the effect of increasing interest rates on our variable-rate debt, increased investments in the business, inflationary pressures on our cost structure, the continuing secular decline in checks, business forms and some business accessories, and the impact of business exits. These decreases in adjusted diluted EPS were partially offset by price increases in response to the inflationary environment and the benefit of various cost saving actions across functional areas. A reconciliation of diluted EPS to adjusted diluted EPS can be found in *Consolidated Results of Operations*.

Recent market conditions – Interest expense has increased as a result of the rising interest rate environment. As of December 31, 2023, we held interest rate swaps that effectively convert \$771.7 million of our variable-rate debt to a fixed rate. As

a result, 78% of our debt had a fixed interest rate of 7.0% as of December 31, 2023, which partially insulates us from future interest rate increases.

We continue to monitor inflationary pressures on our labor, delivery and material costs. In response to the inflationary environment, we implemented targeted price increases in all of our segments. Despite the price changes, we continue to experience healthy revenue volumes, demonstrating the strength of our business and continued demand for our products. We have, at times, experienced some supply disruptions impacting certain printed products in our Promotional Solutions segment. We continue to closely monitor our supply chain to avoid delays or disruptions. We have also experienced labor supply issues in certain portions of our business. It remains difficult to estimate the severity and duration of the inflationary environment or supply chain and labor issues on our business, financial position or results of operations.

The disruptions to some regional financial institutions earlier in the year had no impact on our business or results of operations. We do not bank with any of the directly affected financial institutions, and they collectively represent an immaterial portion of our revenue. Additionally, we have very little customer concentration risk, and we believe our diversified customer base positions us well going forward.

Outlook for 2024

We expect that revenue for 2024 will be between \$2.14 billion and \$2.18 billion, as compared to 2023 revenue of \$2.19 billion. The 2023 amount included revenue of approximately \$56 million that will not recur in 2024 due to business exits. We expect that adjusted EBITDA for 2024 will be between \$400 million and \$420 million, as compared to \$417 million for 2023. The 2023 amount included adjusted EBITDA of approximately \$26 million that will not recur in 2024 due to business exits. These estimates are subject to, among other things, prevailing macroeconomic conditions, global unrest, labor supply issues, inflation and the impact of business exits.

As of December 31, 2023, we held cash and cash equivalents of \$72.0 million and \$240.5 million was available for borrowing under our revolving credit facility. We anticipate that capital expenditures will be approximately \$100 million in 2024, as compared to \$100.7 million for 2023, as we continue with important innovation investments and building scale across our product categories. We also expect that we will continue to pay our regular quarterly dividend. However, dividends are approved by our board of directors each quarter and thus, are subject to change. We anticipate that net cash generated by operations, along with cash and cash equivalents on hand and availability under our credit facility, will be sufficient to support our operations, including our contractual obligations and debt service requirements, for the next 12 months, as well as our long-term capital requirements. We were in compliance with our debt covenants as of December 31, 2023, and we anticipate that we will remain in compliance with our debt covenants throughout 2024.

CONSOLIDATED RESULTS OF OPERATIONS

Consolidated Revenue

<i>(in thousands)</i>	2023	2022	Change
Total revenue	\$ 2,192,260	\$ 2,238,010	(2.0%)

The decrease in total revenue for 2023, as compared to 2022, was driven, in part, by the business exits discussed in *Executive Overview*, which resulted in a decrease in revenue of approximately \$52 million for 2023, as well as the continuing secular decline in order volume for checks, business forms and some Promotional Solutions business accessories. These decreases in revenue were partially offset by price increases in response to the inflationary environment, primarily in our Promotional Solutions and Checks segments, as well as growth from new business and favorable volumes for data-driven marketing and merchant services.

We do not manage our business based on product versus service revenue. Instead, we analyze our revenue based on the product and service offerings shown under the caption "Note 17: Business Segment Information" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. Our revenue mix by business segment was as follows:

	2023	2022
Payments	31.5 %	30.3 %
Data Solutions	10.9 %	11.9 %
Promotional Solutions	24.7 %	25.2 %
Checks	32.9 %	32.6 %
Total revenue	100.0 %	100.0 %

Consolidated Cost of Revenue

(in thousands)	2023	2022	Change
Total cost of revenue	\$ 1,029,577	\$ 1,032,116	(0.2%)
Total cost of revenue as a percentage of total revenue	47.0 %	46.1 %	0.9 pt.

Cost of revenue consists primarily of raw materials used to manufacture our products, shipping and handling costs, third-party costs for outsourced products and services, payroll and related expenses, information technology costs, depreciation and amortization of assets used in the production process and in support of digital service offerings, and related overhead.

The decrease in total cost of revenue for 2023, as compared to 2022, was driven by reduced revenue volume from the continuing secular decline in checks, business forms and some Promotional Solutions business accessories, as well as a decrease of approximately \$27 million from the business exits discussed under *Executive Overview*. Partially offsetting these decreases in total cost of revenue was inflationary pressures on hourly wages, materials and delivery, as well as the revenue growth from new business and favorable volumes, primarily data-driven marketing and merchant services. In addition, investments in the business increased, including some cost pressures in our Payments lockbox business earlier in the year as we continued to consolidate these operations. Restructuring and integration expense included in total cost of revenue increased \$11.6 million as we continued to pursue cost reductions and growth initiatives.

Total cost of revenue as a percentage of total revenue for 2023 increased as compared to 2022, as the inflationary impacts, investments in the business and restructuring and integration expense more than offset the benefit of our pricing actions.

Consolidated Selling, General & Administrative ("SG&A") Expense

(in thousands)	2023	2022	Change
SG&A expense	\$ 956,068	\$ 993,250	(3.7%)
SG&A expense as a percentage of total revenue	43.6 %	44.4 %	(0.8) pt.

The decrease in SG&A expense for 2023, as compared to 2022, was driven, in part, by various cost reduction actions, including workforce adjustments, marketing optimization and real estate rationalization, as well as a decrease related to the business exits discussed under *Executive Overview* of approximately \$15 million for 2023. Additionally, acquisition amortization decreased \$15.0 million in 2023, as certain of our intangible assets are amortized using accelerated methods. These decreases in SG&A expense were partially offset by increased costs related to our continued investments in the business, primarily related to our technology infrastructure.

Total SG&A expense as a percentage of total revenue for 2023 decreased as compared to 2022, as the impact of price increases, our cost reduction actions and the decrease in acquisition amortization more than offset the impact of investments in the business.

Restructuring and Integration Expense

(in thousands)	2023	2022	Change
Restructuring and integration expense	\$ 78,245	\$ 62,529	\$ 15,716

We continue to pursue several initiatives designed to focus our business behind our growth strategy and to increase our efficiency. The amount of restructuring and integration expense is expected to vary from period to period as we execute these initiatives. Further information regarding these costs can be found in *Restructuring and Integration Expense* in this MD&A discussion.

Gain on Sale of Businesses and Long-Lived Assets

(in thousands)	2023	2022	Change
Gain on sale of businesses and long-lived assets	\$ 32,421	\$ 19,331	\$ 13,090

As discussed in *Executive Overview*, during 2023, we completed the sale of our North American web hosting and logo design businesses, recognized income from actions related to the decision to exit our payroll and human resources services business, and sold 2 facilities. During 2022, we completed the sale of our Australian web hosting business, our Promotional Solutions retail packaging and strategic sourcing businesses, and a facility. Net cash proceeds from these transactions were \$53.6 million during 2023 and \$25.2 million during 2022. Further information regarding these business exits can be found under the caption "Note 6: Acquisition and Divestitures" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

Interest Expense

<i>(in thousands)</i>	2023	2022	Change
Interest expense	\$ 125,643	\$ 94,454	33.0%
Weighted-average debt outstanding	1,676,858	1,682,676	(0.3%)
Weighted-average interest rate	7.06 %	5.19 %	1.87 pt.

The increase in interest expense for 2023, as compared to 2022, was due primarily to the increase in our weighted-average interest rate driven by the rising interest rate environment. Based on the amount of variable-rate debt outstanding as of December 31, 2023, a one percentage point change in the weighted-average interest rate would result in a \$4 million change in interest expense for 2024.

Income Tax Provision

<i>(in thousands)</i>	2023	2022	Change
Income tax provision	\$ 13,572	\$ 18,848	(28.0%)
Effective tax rate	34.1 %	22.3 %	11.8 pt.

The increase in the effective income tax rate for 2023, as compared to 2022, was driven primarily by an increase of 7.8 points related to the repatriation of foreign earnings and the change in our foreign effective tax rate, as well as a 3.9 point increase driven by return-to-provision adjustments and a 3.5 point increase related to the tax impact of share-based compensation. These increases in our effective income tax rate were partially offset by a benefit of 4.1 points from the impacts of business exits, including related changes in the deferred tax valuation allowance. Information regarding other factors that impacted our effective income tax rates can be found under the caption "Note 10: Income Tax Provision" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

Net Income / Diluted Earnings per Share

<i>(in thousands, except per share amounts)</i>	2023	2022	Change
Net income	\$ 26,227	\$ 65,530	(60.0 %)
Diluted earnings per share	0.59	1.50	(60.7 %)
Adjusted diluted EPS ⁽¹⁾	3.32	4.08	(18.6 %)

⁽¹⁾ Information regarding the calculation of adjusted diluted EPS can be found in the following section entitled *Reconciliation of Non-GAAP Financial Measures*.

The decreases in net income, diluted EPS and adjusted diluted EPS for 2023, as compared to 2022, were driven by the factors outlined in *Executive Overview – 2023 results vs. 2022*.

Adjusted EBITDA

<i>(in thousands)</i>	2023	2022	Change
Adjusted EBITDA ⁽¹⁾	\$ 417,135	\$ 418,130	(0.2%)
Adjusted EBITDA as a percentage of total revenue (adjusted EBITDA margin) ⁽¹⁾	19.0 %	18.7 %	0.3 pt.

⁽¹⁾ Information regarding the calculation of adjusted EBITDA and adjusted EBITDA margin can be found in the following section entitled *Reconciliation of Non-GAAP Financial Measures*.

The slight decrease in adjusted EBITDA for 2023, as compared to 2022, was driven primarily by increased costs related to our continued investments in the business, primarily inefficiencies related to the consolidation of our Payments lockbox business earlier in the year and costs related to our technology infrastructure, as well as inflationary pressures on hourly wages, materials and delivery. Also reducing adjusted EBITDA was the continuing secular decline in checks, business forms and some business accessories, and the business exits discussed under *Executive Overview* reduced adjusted EBITDA approximately \$14 million in 2023. Partially offsetting these decreases in adjusted EBITDA were price increases in response to the inflationary environment, the benefit of actions taken to reduce costs as we continually evaluate our cost structure, and the growth in data-driven marketing and merchant services revenue.

Adjusted EBITDA margin increased for 2023, as compared to 2022, driven by price increases, the benefit of cost saving actions and operating leverage, partially offset by inflationary pressures and our continued investments in the business.

Reconciliation of Non-GAAP Financial Measures

Free cash flow – We define free cash flow as net cash provided by operating activities less purchases of capital assets. We believe that free cash flow is an important indicator of cash available for debt service and for shareholders, after making capital investments to maintain or expand our asset base. A limitation of using the free cash flow measure is that not all of our free cash flow is available for discretionary spending, as we may have mandatory debt payments and other cash requirements that must be deducted from our cash available for future use. We believe that the measure of free cash flow provides an additional metric to compare cash generated by operations on a consistent basis and to provide insight into the cash flow available to fund items such as dividends, mandatory and discretionary debt reduction, acquisitions or other strategic investments, and share repurchases.

Net cash provided by operating activities for the years ended December 31 reconciles to free cash flow as follows:

<i>(in thousands)</i>	2023	2022
Net cash provided by operating activities	\$ 198,367	\$ 191,531
Purchases of capital assets	(100,747)	(104,598)
Free cash flow	<u>\$ 97,620</u>	<u>\$ 86,933</u>

Net debt – Management believes that net debt is an important measure to monitor leverage and to evaluate the balance sheet. In calculating net debt, cash and cash equivalents are subtracted from total debt because they could be used to reduce our debt obligations. A limitation associated with using net debt is that it subtracts cash and cash equivalents, and therefore, may imply that management intends to use cash and cash equivalents to reduce outstanding debt. In addition, net debt suggests that our debt obligations are less than the most comparable GAAP measure indicates.

Total debt reconciles to net debt as follows as of December 31:

<i>(in thousands)</i>	2023	2022
Total debt	\$ 1,592,851	\$ 1,644,276
Cash and cash equivalents	(71,962)	(40,435)
Net debt	<u>\$ 1,520,889</u>	<u>\$ 1,603,841</u>

Liquidity – We define liquidity as cash and cash equivalents plus the amount available for borrowing under our revolving credit facility. We consider liquidity to be an important metric for demonstrating the amount of cash that is available or that could be available on short notice. This financial measure is not a substitute for GAAP liquidity measures. Instead, we believe that this measurement enhances investors' understanding of the funds that are currently available.

Liquidity was as follows as of December 31:

<i>(in thousands)</i>	2023	2022
Cash and cash equivalents	\$ 71,962	\$ 40,435
Amount available for borrowing under revolving credit facility	240,514	295,177
Liquidity	<u>\$ 312,476</u>	<u>\$ 335,612</u>

Adjusted diluted EPS – By excluding the impact of non-cash items or items that we believe are not indicative of current period operating performance, we believe that adjusted diluted EPS provides useful comparable information to assist in analyzing our current period operating performance and in assessing our future operating performance. As such, adjusted diluted EPS is one of the key financial performance metrics we use to assess the operating results and performance of the business and to identify strategies to improve performance. It is reasonable to expect that one or more of the excluded items will occur in future periods, but the amounts recognized may vary significantly.

Diluted earnings per share for the years ended December 31 reconciles to adjusted diluted EPS as follows:

<i>(in thousands, except per share amounts)</i>	2023	2022
Net income	\$ 26,227	\$ 65,530
Net income attributable to non-controlling interest	(107)	(135)
Net income attributable to Deluxe	26,120	65,395
Acquisition amortization	74,839	90,588
Accelerated amortization	2,500	—
Restructuring and integration expense	90,475	63,136
Share-based compensation expense	20,525	23,676
Acquisition transaction costs	—	130
Certain legal-related expense (benefit)	2,195	(730)
Gain on sale of businesses and long-lived assets	(32,421)	(19,331)
Loss on sale of investment securities	1,323	—
Gain on debt retirements	—	(1,726)
Adjustments, pretax	159,436	155,743
Income tax provision impact of pretax adjustments ⁽¹⁾	(39,684)	(43,854)
Adjustments, net of tax	119,752	111,889
Adjusted net income attributable to Deluxe	145,872	177,284
Income allocated to participating securities	—	(98)
Re-measurement of share-based awards classified as liabilities	(20)	(512)
Adjusted income attributable to Deluxe available to common shareholders	\$ 145,852	\$ 176,674
Weighted-average shares and potential common shares outstanding	43,843	43,310
Adjustment ⁽²⁾	46	—
Adjusted weighted-average shares and potential common shares outstanding	43,889	43,310
GAAP diluted earnings per share	\$ 0.59	\$ 1.50
Adjustments, net of tax	2.73	2.58
Adjusted diluted EPS	\$ 3.32	\$ 4.08

⁽¹⁾ The tax effect of the pretax adjustments considers the tax treatment and related tax rate(s) that apply to each adjustment in the applicable tax jurisdiction(s). Generally, this results in a tax impact that approximates the U.S. effective tax rate for each adjustment. However, the tax impact of certain adjustments, such as share-based compensation expense and gains on sales of businesses, depends on whether the amounts are deductible in the respective tax jurisdictions and the applicable effective tax rate(s) in those jurisdictions.

⁽²⁾ The total of weighted-average shares and potential common shares outstanding used in the calculation of adjusted diluted EPS differs from the GAAP calculation due to differences in the amount of dilutive securities in each calculation.

Adjusted EBITDA and adjusted EBITDA margin – We believe that adjusted EBITDA and adjusted EBITDA margin are useful in evaluating our operating performance, as they eliminate the effect of interest expense, income taxes, the accounting effects of capital investments (i.e., depreciation and amortization) and certain items, as presented below, that may vary for reasons unrelated to current period operating performance. In addition, management utilizes these measures to assess the operating results and performance of the business, to perform analytical comparisons and to identify strategies to improve performance. We also believe that an increasing adjusted EBITDA and adjusted EBITDA margin depict an increase in the value of the company. We do not consider adjusted EBITDA to be a measure of cash flow, as it does not consider certain cash requirements such as interest, income taxes, debt service payments or capital investments.

We have not reconciled our adjusted EBITDA outlook for 2023 to the directly comparable GAAP financial measure because we do not provide outlook guidance for net income or the reconciling items between net income and adjusted EBITDA. Because of the substantial uncertainty and variability surrounding certain of these forward-looking reconciling items, including asset impairment charges; restructuring and integration expense; gains and losses on sales of businesses and long-lived assets; and certain legal-related expenses, a reconciliation of the non-GAAP financial measure outlook guidance to the corresponding GAAP measure is not available without unreasonable effort. The probable significance of certain of these reconciling items is high and, based on historical experience, could be material.

Net income for the years ended December 31 reconciles to adjusted EBITDA and adjusted EBITDA margin as follows:

<i>(in thousands)</i>	2023	2022
Net income	\$ 26,227	\$ 65,530
Non-controlling interest	(107)	(135)
Depreciation and amortization expense	169,703	172,552
Interest expense	125,643	94,454
Income tax provision	13,572	18,848
Restructuring and integration expense	90,475	63,136
Share-based compensation expense	20,525	23,676
Acquisition transaction costs	—	130
Certain legal-related expense (benefit)	2,195	(730)
Gain on sale of businesses and long-lived assets	(32,421)	(19,331)
Loss on sale of investment securities	1,323	—
Adjusted EBITDA	<u>\$ 417,135</u>	<u>\$ 418,130</u>
Adjusted EBITDA margin	<u>19.0 %</u>	<u>18.7 %</u>

RESTRUCTURING AND INTEGRATION EXPENSE

Restructuring and integration expense consists of costs related to initiatives to drive earnings and cash flow growth and also includes costs related to the consolidation and migration of certain applications and processes, including our financial management system. These costs consist primarily of consulting, project management services and internal labor, as well as other costs associated with our initiatives, such as costs related to facility closures and consolidations. In addition, we have recorded employee severance costs across functional areas.

We are currently pursuing several initiatives designed to support our growth strategy and to increase our efficiency, including several initiatives that we collectively refer to as our North Star program. The goal of these initiatives is to further drive shareholder value by (1) expanding our EBITDA growth trajectory, (2) increasing cash flow, (3) paying down debt, and (4) improving our leverage ratio. Our various initiatives include a balanced mix of structural cost reductions focused on organizational structure, processes and operational improvements, in addition to workstreams to drive revenue growth. We have already combined like-for-like capabilities, reduced management layers and consolidated core operations to run more efficiently and to create the ability to invest in high impact talent to accelerate our growth businesses of payments and data. The associated costs, which consisted primarily of consulting and severance costs, drove the increase in restructuring and integration expense during 2023. Further information regarding restructuring and integration expense can be found under the caption "Note 9: Restructuring and Integration Expense" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

We expect that the benefits of the various North Star initiatives will ramp up over the coming quarters. The overall program targets a \$100 million run-rate improvement in free cash flow and an \$80 million run-rate improvement in adjusted EBITDA by 2026. Through December 31, 2023, we incurred related restructuring and integration expense of approximately \$45 million, and we expect to incur an additional \$70 million to \$90 million over the next 2 years. These charges will include employee severance, professional services fees and other restructuring-related charges.

The majority of the employee reductions included in our restructuring and integration accruals as of December 31, 2023, as well as the related severance payments, are expected to be completed by mid-2024. As a result of our employee reductions, including those related to our North Star program, we realized cost savings of approximately \$7 million in cost of sales and \$25 million in SG&A expense in 2023, in comparison to our 2022 results of operations. For those employee reductions included in our restructuring and integration accruals through December 31, 2023, we expect to realize annual cost savings of approximately \$8 million in cost of sales and \$25 million in SG&A expense in 2024, in comparison to our 2023 results of operations. In addition, we realized cost savings from facility closures of approximately \$3 million in 2023, in comparison to our 2022 results of operations, and we anticipate savings of approximately \$3 million in 2024, in comparison to our 2023 results of operations. Note that these savings may be offset by increased labor and other costs, including inflationary impacts and investments in the business.

SEGMENT RESULTS

As of December 31, 2023, we operated 4 reportable business segments: Payments, Data Solutions, Promotional Solutions and Checks. These segments were generally organized by product type and reflected the way we managed the company. The financial information presented below for our reportable business segments is consistent with that presented

under the caption “Note 17: Business Segment Information” in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report, where information regarding revenue for our product and service offerings can also be found.

Payments

Results for our Payments segment were as follows:

<i>(in thousands)</i>	2023	2022	Change
Total revenue	\$ 690,704	\$ 678,580	1.8%
Adjusted EBITDA	152,798	144,605	5.7%
Adjusted EBITDA margin	22.1 %	21.3 %	0.8 pt.

The increase in total revenue for 2023, as compared to 2022, was due to an increase in merchant services revenue of 4.8%, driven by strong merchant fees and volume. Treasury management revenue was flat year-over-year as price increases in response to the inflationary environment were offset by the impact of non-recurring revenue in the prior year and continued demand softness for lockbox services. For 2024, we expect mid-single digit percentage revenue growth for this segment.

The increase in adjusted EBITDA for 2023, as compared to 2022, was primarily driven by the revenue growth in merchant services, benefits from operational improvements across our lockbox sites, and price increases in response to the inflationary environment. These increases in adjusted EBITDA were partially offset by continued information technology investments and inflationary pressures on labor costs, as well as the lower lockbox services volume. For 2024, we expect adjusted EBITDA margin to continue in the low to mid 20% range.

Data Solutions

Results for our Data Solutions segment were as follows:

<i>(in thousands)</i>	2023	2022	Change
Total revenue	\$ 238,817	\$ 267,525	(10.7%)
Adjusted EBITDA	55,700	68,214	(18.3%)
Adjusted EBITDA margin	23.3 %	25.5 %	(2.2) pt.

The decrease in total revenue for 2023, as compared to 2022, was driven by the business exits discussed in *Executive Overview*, which resulted in a reduction in revenue of approximately \$38 million for 2023. In addition, revenue from our North American web hosting business prior to the divestiture declined due to continuing customer churn. Partially offsetting these decreases in revenue was an increase in data-driven marketing revenue of \$15 million for 2023, as demand increased for our marketing services in support of banks attracting low-cost deposits and expansion of business banking account offerings. This increase was partially offset by the impact of certain of our customer's marketing campaigns being pulled into the fourth quarter of 2022. For 2024, we expect that revenue will decline approximately \$27 million as a result of the business exits and that the remainder of the business will deliver mid-single digit percentage revenue growth.

The decrease in adjusted EBITDA for 2023, as compared to 2022, was driven by the business exits discussed under *Executive Overview*, which reduced adjusted EBITDA by approximately \$13 million for 2023, as well as the decrease in North American web hosting revenue prior to the divestiture. These decreases in adjusted EBITDA were partially offset by the growth in data-driven marketing and the benefit of various cost reduction actions. Adjusted EBITDA margin decreased for 2023, as compared to 2022, as the shift toward data-driven marketing revenue was offset by expense management. For 2024, we expect that adjusted EBITDA will decline approximately \$9 million due to business exits, and we expect that adjusted EBITDA margin will be in the low 20% range.

Promotional Solutions

Results for our Promotional Solutions segment were as follows:

<i>(in thousands)</i>	2023	2022	Change
Total revenue	\$ 541,650	\$ 562,917	(3.8%)
Adjusted EBITDA	80,751	79,549	1.5%
Adjusted EBITDA margin	14.9 %	14.1 %	0.8 pt.

The decrease in total revenue for 2023, as compared to 2022, was driven primarily by the continuing secular decline in business forms and some accessories and some demand softness in our distributor network. Additionally, the business exits discussed in *Executive Overview* resulted in a revenue decline of approximately \$13 million for 2023. Partially offsetting these decreases in revenue was the impact of price increases in response to the inflationary environment, new clients and relationship expansion with existing clients. For 2024, we expect a low to mid single digit percentage revenue decline.

The increase in adjusted EBITDA for 2023, as compared to 2022, was driven primarily by price increases and cost reduction actions. In addition, we are taking a more focused approach and targeting products with better margins. Partially offsetting these increases in adjusted EBITDA were inflationary pressures on materials and delivery, the continuing secular decline in business forms and some accessories, and some demand softness in our distributor network. Adjusted EBITDA margin increased for 2023, as compared to 2022, as price increases, the benefit of cost reduction actions and our focus on products with better margins more than offset the impact of inflationary pressures. For 2024, we expect the adjusted EBITDA margin percentage to remain in the mid-teens.

Checks

Results for our Checks segment were as follows:

<i>(in thousands)</i>	2023	2022	Change
Total revenue	\$ 721,089	\$ 728,988	(1.1%)
Adjusted EBITDA	320,333	320,498	(0.1%)
Adjusted EBITDA margin	44.4 %	44.0 %	0.4 pt.

The decrease in total revenue for 2023, as compared to 2022, was driven primarily by the continuing secular decline in overall check volumes, partially offset by price increases in response to the inflationary environment. For 2024, we expect the percentage revenue decline to be in the low to mid single digits, consistent with our long-term expectations.

Adjusted EBITDA for 2023 was flat as compared to 2022, as the secular decline in overall check volumes and inflationary pressures on delivery and materials were offset by price increases and the benefit of cost saving actions. Adjusted EBITDA margin for 2023 increased as compared to 2022, as inflationary cost pressures were more than offset by the benefit of the pricing and cost saving actions. For 2024, we expect adjusted EBITDA margin to remain in the mid 40% range.

CASH FLOWS AND LIQUIDITY

As of December 31, 2023, we held cash and cash equivalents of \$72.0 million, as well as restricted cash and restricted cash equivalents included in funds held for customers and in other non-current assets of \$386.1 million. The following table should be read in conjunction with the consolidated statements of cash flows appearing in Part II, Item 8 of this report.

<i>(in thousands)</i>	2023	2022	Change
Net cash provided by operating activities	\$ 198,367	\$ 191,531	\$ 6,836
Net cash used by investing activities	(43,305)	(80,325)	37,020
Net cash used by financing activities	(37,679)	(48,601)	10,922
Effect of exchange rate change on cash, cash equivalents, restricted cash and restricted cash equivalents	3,235	(10,681)	13,916
Net change in cash, cash equivalents, restricted cash and restricted cash equivalents	\$ 120,618	\$ 51,924	\$ 68,694
Free cash flow ⁽¹⁾	\$ 97,620	\$ 86,933	\$ 10,687

⁽¹⁾ See *Reconciliation of Non-GAAP Financial Measures* within the *Consolidated Results of Operations* section, which defines and illustrates how we calculate free cash flow.

Cash provided by operating activities for 2023 increased \$6.8 million as compared to 2022, driven by positive changes in working capital, pricing and cost saving actions, and a decrease of \$9.5 million in payments for cloud computing implementation costs related to the implementation of our financial management system, which was completed in early 2023. Growth in data-driven marketing and merchant services revenue also contributed to the increase in operating cash flow. Partially offsetting these increases in operating cash flow was a \$28.4 million increase in interest payments as a result of rising interest rates, as well as a \$9.5 million increase in employee bonus payments related to our 2022 operating performance and a \$9.3 million increase in income tax payments driven, in large part, by the timing of our federal tax payments. Operating cash flow was also negatively impacted by the continuing secular decline in checks, business forms and certain Promotional Solutions business accessories, inflationary pressures on hourly wages, materials and delivery, and the impact of business exits.

Included in net cash provided by operating activities were the following operating cash outflows:

<i>(in thousands)</i>	2023	2022	Change
Interest payments	\$ 115,556	\$ 87,108	\$ 28,448
Income tax payments	47,945	38,629	9,316
Performance-based compensation payments ⁽¹⁾	44,483	34,972	9,511
Prepaid product discount payments	28,535	30,603	(2,068)
Severance payments	16,942	9,973	6,969
Payments for cloud computing arrangement implementation costs	9,118	18,649	(9,531)

⁽¹⁾ Amounts reflect compensation based on total company and segment performance.

Net cash used by investing activities for 2023 was \$37.0 million lower than 2022, driven primarily by a \$28.4 million increase in proceeds from sales of businesses and long-lived assets.

Net cash used by financing activities for 2023 was \$10.9 million lower than 2022, driven by the net change in customer funds obligations in each period, partially offset by higher payments of debt during 2023 enabled, in part, by the proceeds received from business exits during 2023.

Significant cash transactions, excluding those related to operating activities, for each period were as follows:

<i>(in thousands)</i>	2023	2022	Change
Purchases of capital assets	\$ (100,747)	\$ (104,598)	\$ 3,851
Net change in debt	(55,188)	(40,613)	(14,575)
Cash dividends paid to shareholders	(53,325)	(52,647)	(678)
Net change in customer funds obligations	79,063	56,426	22,637
Proceeds from sale of businesses and long-lived assets	53,635	25,248	28,387

In assessing our cash needs, we must consider our debt service requirements, lease obligations, other contractual commitments and contingent liabilities. Information regarding the maturities of our long-term debt, our operating and finance lease obligations and contingent liabilities can be found under the captions "Note 13: Debt," "Note 14: Leases" and "Note 15: Other Commitments and Contingencies," all of which appear in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. In addition, we have executed contracts with third-party service providers, primarily for information technology services, including cloud computing and professional services agreements related to our various restructuring initiatives, as well as agreements for outsourced services, the purchase of data, and payment acceptance services. These contracts obligate us to pay approximately \$230 million in total, with approximately \$100 million due during 2024, \$50 million due during 2025 and the remainder due through 2028.

As of December 31, 2023, \$240.5 million was available for borrowing under our revolving credit facility. We anticipate that net cash generated by operations, along with cash and cash equivalents on hand and availability under our credit facility, will be sufficient to support our operations, including our contractual obligations and our debt service requirements, for the next 12 months, as well as our long-term capital requirements. We anticipate that we will continue to pay our regular quarterly dividend. However, dividends are approved by our board of directors each quarter and thus, are subject to change.

CAPITAL RESOURCES

The principal amount of our debt obligations was \$1.60 billion as of December 31, 2023 and \$1.66 billion as of December 31, 2022. Further information concerning our outstanding debt, including our debt service obligations, can be found under the caption "Note 13: Debt" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

Our capital structure for each period was as follows:

(in thousands)	December 31, 2023		December 31, 2022		Change
	Amount	Period-end interest rate	Amount	Period-end interest rate	
Fixed interest rate ⁽¹⁾	\$ 1,246,659	7.0 %	\$ 975,000	6.6 %	\$ 271,659
Floating interest rate	357,528	7.9 %	684,375	6.6 %	(326,847)
Total debt principal	1,604,187	7.2 %	1,659,375	6.6 %	(55,188)
Shareholders' equity	604,616		604,224		392
Total capital	\$ 2,208,803		\$ 2,263,599		\$ (54,796)

⁽¹⁾ The fixed interest rate amount includes the amount of our variable-rate debt that is subject to interest rate swap agreements. The related interest rate includes the fixed rate under the swaps plus the credit facility spread due on all amounts outstanding under our credit facility.

In October 2018, our board of directors authorized the repurchase of up to \$500.0 million of our common stock. This authorization has no expiration date. We have not repurchased any shares under this authorization since the first quarter of 2020. As of December 31, 2023, \$287.5 million remained available for repurchase under the authorization. Information regarding changes in shareholders' equity can be found in the consolidated statements of shareholders' equity appearing in Part II, Item 8 of this report.

As of December 31, 2023, total commitments under our revolving credit facility were \$500.0 million. Our quarterly commitment fee ranges from 0.25% to 0.35%, based on our total leverage ratio, as defined in the credit agreement. Further information regarding the terms and maturities of our debt, as well as our debt covenants, can be found under the caption "Note 13: Debt" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. We were in compliance with our debt covenants as of December 31, 2023, and we anticipate that we will remain in compliance with our debt covenants throughout 2024.

As of December 31, 2023, amounts were available for borrowing under our revolving credit facility as follows:

(in thousands)	Total available
Revolving credit facility commitment	\$ 500,000
Amount drawn on revolving credit facility	(252,000)
Outstanding letters of credit ⁽¹⁾	(7,486)
Net available for borrowing as of December 31, 2023	\$ 240,514

⁽¹⁾ We use standby letters of credit primarily to collateralize certain obligations related to our self-insured workers' compensation claims, as well as claims for environmental matters, as required by certain states. These letters of credit reduce the amount available for borrowing under our revolving credit facility.

CRITICAL ACCOUNTING ESTIMATES

Our critical accounting estimates are those that are most important to the portrayal of our financial condition and results of operations, or which place the most significant demands on management's judgment about the effect of matters that are inherently uncertain, and the impact of different estimates or assumptions could be material to our financial condition or results of operations. Our MD&A discussion is based upon our consolidated financial statements, which have been prepared in accordance with GAAP. Our accounting policies are discussed under the caption "Note 1: Significant Accounting Policies" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. We review the accounting policies used in reporting our financial results on a regular basis. The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses and the related disclosure of contingent assets and liabilities. We base our estimates on historical experience and on various other factors and assumptions that we believe are reasonable under the circumstances, the result of which forms the basis for making judgments about the carrying values of assets and liabilities. In some instances, we reasonably could have used different accounting estimates and, in other instances, changes in the accounting estimates are reasonably likely to occur from period to period. Accordingly, actual results may differ from our estimates. Significant estimates and judgments are reviewed by management on an ongoing basis and by the Audit and Finance committee of our board of directors at the end of each quarter prior to the public release of our financial results.

Revenue Recognition

Product revenue is recognized when control of the goods is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods. In most cases, control is transferred when products are shipped. We recognize the vast majority of our service revenue as the services are provided. The majority of our contracts are for the shipment of tangible products or the delivery of services that have a single performance obligation or include multiple performance obligations where control is transferred at the same time. Certain of our financial institution contracts require prepaid product discounts in the form of cash payments we make to our financial institution clients. These prepaid product discounts are included in other non-current assets on our consolidated balance sheets and are generally amortized as reductions of revenue on the straight-line basis over the contract term. Sales tax collected concurrent with revenue-producing activities is excluded from revenue. Amounts billed to customers for shipping and handling are included in revenue, while the related costs incurred for shipping and handling are reflected in cost of products and are accrued when the related revenue is recognized.

When another party is involved in providing goods or services to a customer, we must determine whether our obligation is to provide the specified good or service itself (i.e., we are the principal in the transaction) or to arrange for that good or service to be provided by the other party (i.e., we are an agent in the transaction). When we are responsible for satisfying a performance obligation, based on our ability to control the product or service provided, we are considered the principal and revenue is recognized for the gross amount of consideration. When the other party is primarily responsible for satisfying a performance obligation, we are considered the agent and revenue is recognized in the amount of any fee or commission to which we are entitled. We sell certain products and services through a network of distributors. We have determined that we are the principal in these transactions, and revenue is recorded for the gross amount of consideration.

Certain costs incurred to obtain customer contracts are required to be recognized as assets and amortized consistent with the transfer of goods or services to the customer. As such, we defer costs related to obtaining check supply, treasury management solution and merchant services contracts. These amounts, which totaled \$21.1 million as of December 31, 2023, are included in other non-current assets and are amortized on the straight-line basis as SG&A expense. Amortization of these amounts on the straight-line basis approximates the timing of the transfer of goods or services to the customer. Generally, these amounts are being amortized over periods of 2 to 5 years. We expense these costs as incurred when the amortization period would have been 1 year or less.

Accounting for customer contracts can be complex and may involve the use of various techniques to estimate total contract revenue. Estimates related to variable consideration are based on various assumptions to project the outcome of future events. We review and update our contract-related estimates regularly, and we do not anticipate that revisions to our estimates would have a material effect on our results of operations, financial position or cash flows.

Goodwill Impairment

As of December 31, 2023, goodwill totaled \$1.43 billion, which represented 46.4% of our total assets. Goodwill is tested for impairment on an annual basis as of July 31, or more frequently if events occur or circumstances change that would indicate a possible impairment.

To analyze goodwill for impairment, we must assign our goodwill to individual reporting units. Identification of reporting units includes an analysis of the components that comprise each of our operating segments, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Components of an operating segment are aggregated to form a reporting unit if the components have similar economic characteristics. We periodically review our reporting units to ensure that they continue to reflect the manner in which we operate our business.

When completing our annual goodwill impairment analysis, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after this qualitative assessment, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the quantitative impairment test is unnecessary. In completing the 2023 annual impairment analysis of goodwill as of July 31, 2023, we elected to perform qualitative analyses for all of our reporting units. These qualitative analyses evaluated factors, including, but not limited to, economic, market and industry conditions, cost factors and the overall financial performance of the reporting units. We also considered the most recent quantitative analyses completed in prior periods. In completing these assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount. As such, no goodwill impairment charges were recorded as a result of our 2023 annual impairment analysis.

When performing a quantitative analysis of goodwill, we first compare the carrying value of the reporting unit, including goodwill, to its estimated fair value. Carrying value is based on the assets and liabilities associated with the operations of the reporting unit, which often requires the allocation of shared and corporate items among reporting units. We utilize a discounted cash flow model to calculate the estimated fair value of a reporting unit. This approach is a valuation technique under which we estimate future cash flows using the reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, we project revenue and apply our fixed and variable cost

experience rates to the projected revenue to arrive at the future cash flows. A terminal value is then applied to the projected cash flow stream. Future estimated cash flows are discounted to their present value to calculate the estimated fair value. The discount rate used is the market-value-weighted average of our estimated cost of capital derived using both known and estimated customary market metrics. In determining the estimated fair values of our reporting units, we are required to estimate a number of factors, including revenue growth rates, terminal growth rates, direct costs, the discount rate and the allocation of shared and corporate items. When completing a quantitative analysis for all of our reporting units, the summation of our reporting units' fair values is compared to our consolidated fair value, as indicated by our market capitalization, to evaluate the reasonableness of our calculations.

Further information regarding all of our goodwill impairment analyses can be found under the caption "Note 8: Fair Value Measurements" in the Notes to Consolidated Financial Statements appearing in Item II, Part 8 of this report. Evaluations of asset impairment require us to make assumptions about future events, market conditions and financial performance over the life of the asset being evaluated. These assumptions require significant judgment and actual results may vary from our assumptions. For example, if our stock price were to further decline over a sustained period, if a further downturn in economic conditions were to negatively affect our actual and forecasted operating results, if we were to change our business strategies and/or the allocation of resources, if we were to lose significant customers, if competition were to materially increase, or if order volume declines for checks and business forms were to materially accelerate, these situations could indicate a decline in the fair value of one or more of our reporting units. This may require us to record additional impairment charges for a portion of goodwill or other assets.

As discussed under *Executive Overview*, during 2023, we executed agreements allowing for the conversion of our U.S. and Canadian payroll and human resources services customers to other service providers. These businesses comprise a reporting unit that had a goodwill balance of \$7.7 million as of December 31, 2023. We evaluated this goodwill for impairment as of December 31, 2023, and, based on our quantitative analysis, we concluded that it was not impaired as of that date. In conjunction with our phased transition out of these businesses, we expect that this goodwill will be fully impaired in 2024, at the point when the remaining cash flows generated by these businesses in 2024 no longer support the carrying value of the reporting unit.

Business Combinations

We allocate the purchase price of acquired businesses to the estimated fair values of the assets acquired and liabilities assumed as of the date of the acquisition. The calculations used to determine the fair value of the long-lived assets acquired, primarily intangible assets, can be complex and require significant judgment. We weigh many factors when completing these estimates, including, but not limited to, the nature of the acquired company's business; its competitive position, strengths and challenges; its historical financial position and performance; estimated customer retention rates; discount rates; and future plans for the combined entity. We may also engage independent valuation specialists, when necessary, to assist in the fair value calculations for significant acquired long-lived assets.

We generally estimate the fair value of acquired customer lists using the multi-period excess earnings method. This valuation model estimates revenues and cash flows derived from the asset and then deducts portions of the cash flow that can be attributed to supporting assets, such as a trade name or fixed assets, that contributed to the generation of the cash flows. The resulting cash flow, which is attributable solely to the customer list asset, is then discounted at a rate of return commensurate with the risk of the asset to calculate a present value. The fair value of acquired customer lists may also be estimated by discounting the estimated cash flows expected to be generated by the assets. During 2021, we also utilized the multi-period excess earnings method to estimate the fair value of acquired partner relationship intangible assets. Key assumptions used in these calculations include same-customer revenue, merchant and partner growth rates; estimated earnings; estimated customer and partner retention rates, based on the acquirees' historical information; and the discount rate.

The fair value of acquired trade names and technology is estimated, at times, using the relief from royalty method, which calculates the cost savings associated with owning rather than licensing the assets. Assumed royalty rates are applied to projected revenue for the estimated remaining useful lives of the assets to estimate the royalty savings. Royalty rates are selected based on the attributes of the asset, including its recognition and reputation in the industry, and in the case of trade names, with consideration of the specific profitability of the products sold under a trade name and supporting assets. The fair value of acquired technology may also be estimated using the cost of reproduction method under which the primary components of the technology are identified and the estimated cost to reproduce the technology is calculated based on historical data provided by the acquiree.

The excess of the purchase price over the estimated fair value of the net assets acquired is recorded as goodwill. Goodwill is not amortized, but is subject to impairment testing on at least an annual basis.

We are also required to estimate the useful lives of the acquired intangible assets, which determines the amount of acquisition-related amortization expense we will record in future periods. Each reporting period, we evaluate the remaining useful lives of our amortizable intangibles to determine whether events or circumstances warrant a revision to the remaining period of amortization.

While we use our best estimates and assumptions, our fair value estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to 1 year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Any adjustments required after the measurement period are recorded in the consolidated statements of income.

The judgments required in determining the estimated fair values and expected useful lives assigned to each class of assets and liabilities acquired can significantly affect net income. For example, different classes of assets will have different useful lives. Consequently, to the extent a longer-lived asset is ascribed greater value than a shorter-lived asset, net income in a given period may be higher. Additionally, assigning a lower value to amortizable intangibles would result in a higher amount assigned to goodwill. As goodwill is not amortized, this would benefit net income in a given period, although goodwill is subject to annual impairment analysis.

New Accounting Pronouncements

Information regarding accounting pronouncements not yet adopted can be found under the caption "Note 2: New Accounting Pronouncements" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Interest rate risk – We are exposed to changes in interest rates primarily as a result of the borrowing activities used to support our capital structure, maintain liquidity and fund business operations and investments. We do not enter into financial instruments for speculative or trading purposes. The nature and amount of debt outstanding can be expected to vary as a result of future business requirements, market conditions and other factors.

Interest is payable on amounts outstanding under our credit facility at a fluctuating rate of interest determined by reference to the Secured Overnight Financing Rate ("SOFR") plus an applicable margin ranging from 1.5% to 2.5%, depending on our total leverage ratio, as defined in the credit agreement. We also had \$475.0 million of 8.0% senior, unsecured notes outstanding as of December 31, 2023. Including the related discount and debt issuance costs, the effective interest rate on these notes is 8.3%.

As of December 31, 2023, our total debt outstanding was as follows:

<i>(in thousands)</i>	Carrying amount ⁽¹⁾	Fair value ⁽²⁾	Interest rate ⁽³⁾
Senior, secured term loan facility	\$ 872,408	\$ 877,187	6.8 %
Senior, unsecured notes	468,443	424,841	8.0 %
Amounts drawn on revolving credit facility	252,000	252,000	6.8 %
Total debt	\$ 1,592,851	\$ 1,554,028	7.2 %

⁽¹⁾ The carrying amount has been reduced by unamortized discount and debt issuance costs of \$11.3 million.

⁽²⁾ For the amounts outstanding under our credit facility agreement, fair value approximates carrying value because the interest rate is variable and reflects current market rates. The fair value of the senior, unsecured notes is based on quoted prices in active markets for the identical liability when traded as an asset.

⁽³⁾ The interest rate presented for total debt includes the impact of the interest rate swaps discussed below.

As part of our interest rate risk management strategy, we entered into interest rate swaps, which we designated as cash flow hedges, to mitigate variability in interest payments on a portion of our variable-rate debt. The interest rate swaps effectively convert \$771.7 million of variable-rate debt to a fixed rate. Further information regarding the interest rate swaps can be found under the caption "Note 7: Derivative Financial Instruments" in the Notes to Consolidated Financial Statements appearing in Part II, Item 8 of this report. Changes in the fair value of the interest rate swaps are recorded in accumulated other comprehensive loss on the consolidated balance sheets and are subsequently reclassified to interest expense as interest payments are made on the variable-rate debt.

Based on the amount of variable-rate debt outstanding as of December 31, 2023, a one percentage point change in the weighted-average interest rate would result in a change in interest expense of approximately \$4 million in 2024.

Our credit agreement matures on June 1, 2026, at which time any amounts outstanding under the revolving credit facility must be repaid. The term loan facility requires periodic principal payments through June 1, 2026, and the senior, unsecured notes mature in June 2029. Information regarding the maturities of our long-term debt can be found under the caption "Note 13: Debt" in the Condensed Notes to Unaudited Consolidated Financial Statements appearing in Part I, Item 1 of this report.

Foreign currency exchange rate risk – We are exposed to changes in foreign currency exchange rates. Investments in, and loans and advances to, foreign subsidiaries and branches, as well as the operations of these businesses, are denominated in foreign currencies, primarily Canadian dollars. The effect of exchange rate changes is expected to have a minimal impact on our earnings and cash flows, as our foreign operations represent a relatively small portion of our business. We have not entered into hedges against changes in foreign currency exchange rates.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Deluxe Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Deluxe Corporation and its subsidiaries (the "Company") as of December 31, 2023 and 2022, and the related consolidated statements of income, of comprehensive income, of shareholders' equity and of cash flows for each of the three years in the period ended December 31, 2023, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) 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 (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or

disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Revenue Recognition

As described in Notes 1 and 17 to the consolidated financial statements, product and service revenue of \$1,258 million and \$935 million, respectively, for the year ended December 31, 2023, are disaggregated by seven product and service offerings including checks, merchant services and other payment solutions, marketing and promotional solutions, forms and other products, treasury management solutions, data-driven marketing solutions, and web and hosted solutions. Product revenue is recognized when control of the goods is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods. In most cases, control is transferred when products are shipped. The Company recognizes the vast majority of service revenue as services are provided. The majority of the Company's contracts are for the shipment of tangible products or the delivery of services that have a single performance obligation or include multiple performance obligations where control is transferred at the same time.

The principal consideration for our determination that performing procedures relating to revenue recognition is a critical audit matter is a high degree of auditor effort in performing procedures related to the Company's revenue recognition.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process. These procedures also included, among others, testing, on a sample basis, whether the criteria for revenue recognition have been met by obtaining and inspecting source documents, including customer order information, the related customer contract, invoices, proof of shipment or delivery and cash receipts, as applicable.

/s/ PricewaterhouseCoopers LLP
Minneapolis, Minnesota
February 22, 2024

We have served as the Company's auditor since 2001.

DELUXE CORPORATION
CONSOLIDATED BALANCE SHEETS

(in thousands, except share par value)

	December 31, 2023	December 31, 2022
ASSETS		
Current assets:		
Cash and cash equivalents, including securities carried at fair value of \$22,000 and \$5,000, respectively	\$ 71,962	\$ 40,435
Trade accounts receivable, net of allowance for credit losses	191,005	206,617
Inventories and supplies, net of reserve	42,088	52,267
Funds held for customers, including securities carried at fair value of \$8,126 as of December 31, 2022	383,134	302,291
Prepaid expenses	30,116	36,642
Revenue in excess of billings	26,107	38,761
Other current assets	16,576	27,024
Total current assets	760,988	704,037
Deferred income taxes	8,694	1,956
Long-term investments	61,924	47,783
Property, plant and equipment, net of accumulated depreciation	116,539	124,894
Operating lease assets	58,961	47,132
Intangibles, net of accumulated amortization	391,744	458,979
Goodwill	1,430,590	1,431,385
Other non-current assets	251,182	260,354
Total assets	\$ 3,080,622	\$ 3,076,520
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	\$ 154,863	\$ 157,055
Funds held for customers	386,622	305,138
Accrued liabilities	191,427	218,404
Current portion of long-term debt	86,153	71,748
Total current liabilities	819,065	752,345
Long-term debt	1,506,698	1,572,528
Operating lease liabilities	58,840	48,925
Deferred income taxes	22,649	45,510
Other non-current liabilities	68,754	52,988
Commitments and contingencies (Notes 10, 14 and 15)		
Shareholders' equity:		
Common shares \$1 par value (authorized: 500,000 shares; outstanding: December 31, 2023 – 43,743; December 31, 2022 – 43,204)	43,743	43,204
Additional paid-in capital	99,141	79,234
Retained earnings	491,238	518,635
Accumulated other comprehensive loss	(30,028)	(37,264)
Non-controlling interest	522	415
Total shareholders' equity	604,616	604,224
Total liabilities and shareholders' equity	\$ 3,080,622	\$ 3,076,520

See Notes to Consolidated Financial Statements

DELUXE CORPORATION
CONSOLIDATED STATEMENTS OF INCOME

	Year Ended December 31,		
	2023	2022	2021
<i>(in thousands, except per share amounts)</i>			
Product revenue	\$ 1,257,600	\$ 1,286,197	\$ 1,244,529
Service revenue	934,660	951,813	777,668
Total revenue	2,192,260	2,238,010	2,022,197
Cost of products	(486,029)	(470,237)	(450,880)
Cost of services	(543,548)	(561,879)	(433,390)
Total cost of revenue	(1,029,577)	(1,032,116)	(884,270)
Gross profit	1,162,683	1,205,894	1,137,927
Selling, general and administrative expense	(956,068)	(993,250)	(941,023)
Restructuring and integration expense	(78,245)	(62,529)	(54,750)
Gain on sale of businesses and long-lived assets	32,421	19,331	—
Operating income	160,791	169,446	142,154
Interest expense	(125,643)	(94,454)	(55,554)
Other income, net	4,651	9,386	7,203
Income before income taxes	39,799	84,378	93,803
Income tax provision	(13,572)	(18,848)	(31,031)
Net income	26,227	65,530	62,772
Net income attributable to non-controlling interest	(107)	(135)	(139)
Net income attributable to Deluxe	\$ 26,120	\$ 65,395	\$ 62,633
Basic earnings per share	\$ 0.60	\$ 1.52	\$ 1.48
Diluted earnings per share	0.59	1.50	1.45

See Notes to Consolidated Financial Statements

DELUXE CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(in thousands)	Year Ended December 31,		
	2023	2022	2021
Net income	\$ 26,227	\$ 65,530	\$ 62,772
Other comprehensive income (loss), net of tax:			
Postretirement benefit plans:			
Net actuarial gain (loss) arising during the year	6,263	(11,235)	6,194
Less reclassification of amounts to net income:			
Amortization of prior service credit	(1,037)	(1,042)	(1,050)
Amortization of net actuarial loss	1,822	836	1,381
Postretirement benefit plans	7,048	(11,441)	6,525
Interest rate swaps:			
Unrealized (loss) gain arising during the year	(524)	4,869	2,067
Reclassification of realized (gain) loss to net income	(2,355)	(15)	1,023
Interest rate swaps	(2,879)	4,854	3,090
Debt securities:			
Unrealized holding loss arising during the year	(183)	(571)	(254)
Reclassification of realized loss to net income	1,092	6	—
Debt securities	909	(565)	(254)
Foreign currency translation adjustment:			
Unrealized foreign currency translation gain (loss) arising during the year	1,295	(4,170)	580
Reclassification of foreign currency translation loss to net income	863	5,550	—
Foreign currency translation adjustment	2,158	1,380	580
Other comprehensive income (loss)	7,236	(5,772)	9,941
Comprehensive income	33,463	59,758	72,713
Comprehensive income attributable to non-controlling interest	(107)	(135)	(139)
Comprehensive income attributable to Deluxe	\$ 33,356	\$ 59,623	\$ 72,574
Income tax (expense) benefit of other comprehensive income (loss) included in above amounts:			
Postretirement benefit plans:			
Net actuarial gain (loss) arising during the year	\$ (2,298)	\$ 4,090	\$ (2,186)
Less reclassification of amounts to net income:			
Amortization of prior service credit	384	379	371
Amortization of net actuarial loss	(451)	(64)	(248)
Postretirement benefit plans	(2,365)	4,405	(2,063)
Interest rate swaps:			
Unrealized (loss) gain arising during the year	194	(1,771)	(731)
Reclassification of realized (gain) loss to net income	872	5	(361)
Interest rate swaps	1,066	(1,766)	(1,092)
Debt securities:			
Unrealized holding loss arising during the year	63	197	88
Reclassification of realized loss to net income	(376)	(2)	—
Debt securities	(313)	195	88
Total net tax (expense) benefit	\$ (1,612)	\$ 2,834	\$ (3,067)

See Notes to Consolidated Financial Statements

DELUXE CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

<i>(in thousands)</i>	Common shares	Common shares par value	Additional paid-in capital	Retained earnings	Accumulated other comprehensive loss	Non- controlling interest	Total
Balance, December 31, 2020	41,973	\$ 41,973	\$ 17,558	\$ 495,153	\$ (41,433)	\$ 141	\$ 513,392
Net income	—	—	—	62,633	—	139	62,772
Cash dividends (\$1.20 per share)	—	—	—	(52,023)	—	—	(52,023)
Common shares issued, net of tax withholding	706	706	10,536	—	—	—	11,242
Employee share-based compensation	—	—	29,274	—	—	—	29,274
Other comprehensive income	—	—	—	—	9,941	—	9,941
Balance, December 31, 2021	42,679	42,679	57,368	505,763	(31,492)	280	574,598
Net income	—	—	—	65,395	—	135	65,530
Cash dividends (\$1.20 per share)	—	—	—	(52,523)	—	—	(52,523)
Common shares issued, net of tax withholding	525	525	(2,442)	—	—	—	(1,917)
Employee share-based compensation	—	—	24,308	—	—	—	24,308
Other comprehensive loss	—	—	—	—	(5,772)	—	(5,772)
Balance, December 31, 2022	43,204	43,204	79,234	518,635	(37,264)	415	604,224
Net income	—	—	—	26,120	—	107	26,227
Cash dividends (\$1.20 per share)	—	—	—	(53,517)	—	—	(53,517)
Common shares issued, net of tax withholding	539	539	(300)	—	—	—	239
Employee share-based compensation	—	—	20,207	—	—	—	20,207
Other comprehensive income	—	—	—	—	7,236	—	7,236
Balance, December 31, 2023	43,743	\$ 43,743	\$ 99,141	\$ 491,238	\$ (30,028)	\$ 522	\$ 604,616

See Notes to Consolidated Financial Statements

DELUXE CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS

(in thousands)	Year Ended December 31,		
	2023	2022	2021
Cash flows from operating activities:			
Net income	\$ 26,227	\$ 65,530	\$ 62,772
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation	23,426	25,997	25,625
Amortization of intangibles	146,277	146,555	123,142
Amortization of prepaid product discounts	33,370	34,400	31,784
Employee share-based compensation expense	20,525	23,676	29,477
Operating lease expense	18,811	20,480	17,485
Amortization of cloud computing arrangement implementation costs	15,743	11,307	5,979
Gain on sale of businesses and long-lived assets	(32,421)	(19,331)	—
Deferred income taxes	(31,876)	(28,529)	17,758
Other non-cash items, net	35,682	20,091	11,217
Changes in assets and liabilities, net of effect of acquisition:			
Trade accounts receivable	7,359	(13,672)	(8,857)
Inventories and supplies	6,347	(19,062)	(1,842)
Payments for cloud computing arrangement implementation costs	(9,118)	(18,649)	(41,547)
Other current and non-current assets	7,272	(26,258)	(27,041)
Accounts payable	4,933	6,015	22,794
Prepaid product discount payments	(28,535)	(30,603)	(40,920)
Other accrued and non-current liabilities	(45,655)	(6,416)	(17,005)
Net cash provided by operating activities	198,367	191,531	210,821
Cash flows from investing activities:			
Purchases of capital assets	(100,747)	(104,598)	(109,140)
Payment for acquisition, net of cash, cash equivalents, restricted cash and restricted cash equivalents acquired	—	—	(958,514)
Proceeds from sale of businesses and long-lived assets	53,635	25,248	2,648
Proceeds from customer funds debt securities	8,006	4,077	93
Other	(4,199)	(5,052)	(1,688)
Net cash used by investing activities	(43,305)	(80,325)	(1,066,601)
Cash flows from financing activities:			
Proceeds from issuing long-term debt and swingline loans	583,500	640,000	1,884,850
Payments on long-term debt and swingline loans	(638,688)	(680,613)	(1,029,876)
Payments for debt issuance costs	—	—	(18,153)
Net change in customer funds obligations	79,063	56,426	126,703
Proceeds from issuing shares	2,715	3,112	16,843
Cash dividends paid to shareholders	(53,325)	(52,647)	(51,654)
Other	(10,944)	(14,879)	(15,752)
Net cash (used) provided by financing activities	(37,679)	(48,601)	912,961
Effect of exchange rate change on cash, cash equivalents, restricted cash and restricted cash equivalents	3,235	(10,681)	(1,099)
Net change in cash, cash equivalents, restricted cash and restricted cash equivalents	120,618	51,924	56,082
Cash, cash equivalents, restricted cash and restricted cash equivalents, beginning of year	337,415	285,491	229,409
Cash, cash equivalents, restricted cash and restricted cash equivalents, end of year (Note 3)	\$ 458,033	\$ 337,415	\$ 285,491

See Notes to Consolidated Financial Statements

NOTE 1: SIGNIFICANT ACCOUNTING POLICIES

Nature of operations – We help our customers deepen their customer relationships through trusted, technology-enabled solutions, including merchant services, marketing services and data analytics, treasury management solutions, promotional products, and fraud and security solutions, as well as customized checks and forms. We are also a leading provider of checks and accessories sold directly to consumers.

Consolidation – The consolidated financial statements include the accounts of Deluxe Corporation and its wholly-owned subsidiaries. All intercompany accounts, transactions and profits have been eliminated. In addition, we are the primary beneficiary of a variable interest entity, MedPayExchange LLC, doing business as Medical Payment Exchange ("MPX"), which delivers payments to healthcare providers from insurance companies and other payers. Our partner's interest in MPX is reported as non-controlling interest in the consolidated balance sheets within equity, separate from our equity. Net income and comprehensive income are attributed to us and the non-controlling interest. The amounts attributable to the non-controlling interest were not material to our consolidated financial statements.

Comparability – The consolidated statements of cash flows for the years ended December 31, 2022 and 2021 have been modified to conform to the current year presentation. Within net cash provided by operating activities, other current and other non-current assets have been combined. In addition, amortization of cloud computing arrangement implementation costs is presented separately. Previously, this amount was included in other non-cash items, net. Within net cash used by investing activities, purchases of customer lists are included in other. Previously, these amounts were presented separately. The consolidated statements of shareholders' equity for the years ended December 31, 2022 and 2021 have also been modified to conform to the current year presentation. Common shares retired are included in common shares issued, net of tax withholding. Previously, these amounts were presented separately.

Use of estimates – We have prepared the accompanying consolidated financial statements in conformity with U.S. generally accepted accounting principles ("GAAP"). In this process, it is necessary for us to make certain estimates and assumptions affecting the amounts reported in the consolidated financial statements and related notes. We base our estimates on historical experience and on various other factors and assumptions that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of our assets, liabilities, revenues and expenses and the related disclosure of contingent assets and liabilities. Actual results may differ significantly from our estimates and assumptions.

Foreign currency translation – The financial statements of our foreign subsidiaries are measured in the respective subsidiaries' functional currencies, primarily Canadian dollars, and are translated into U.S. dollars. Assets and liabilities are translated using the exchange rates in effect at the balance sheet date. Revenue and expenses are translated at the average exchange rates during the year. The resulting translation gains and losses are reflected in accumulated other comprehensive loss in the shareholders' equity section of the consolidated balance sheets. Foreign currency transaction gains and losses are recorded in other income, net on the consolidated statements of income.

Cash and cash equivalents – We consider all cash on hand and other highly liquid investments with original maturities of 3 months or less to be cash and cash equivalents. The carrying amounts reported in the consolidated balance sheets for cash and cash equivalents approximate fair value. Checks issued by us but not presented to the banks for payment may create negative book cash balances. These book overdrafts are included in accounts payable on the consolidated balance sheets and were not material as of December 31, 2023 or December 31, 2022.

Trade accounts receivable – Trade accounts receivable are initially recorded at the invoiced amount upon the sale of goods or services to customers, and also include amounts due for products shipped and services rendered, but for which invoices have not yet been issued due to timing (i.e., unbilled receivables). Our trade accounts receivable are not interest-bearing. They are stated net of the allowance for credit losses, a valuation account that is deducted from an asset's amortized cost basis to present the net amount expected to be collected. Amounts are charged off against the allowance when we believe the uncollectibility of an account is confirmed. The point at which uncollected accounts are written off varies by type of customer, but generally does not exceed 1 year from the due date of the receivable. In calculating the allowance, we utilize a combination of aging schedules with reserve rates applied to both current and aged receivables and roll-rate reserves using historical loss rates and changes in current or projected conditions. Changes in the allowance for credit losses are included in selling, general and administrative ("SG&A") expense on the consolidated statements of income. Further information regarding our allowance for credit losses can be found in Note 3.

Inventories and supplies – Inventories are stated at the lower of cost or net realizable value. Cost is calculated using moving average and standard costs, which approximates the first-in, first-out basis. We periodically review our inventory quantities and record a provision for excess and/or obsolete inventory based on our historical usage and forecasts of future demand. It is possible that additional reserves above those already established may be required if there is a significant change in the timing or level of demand for our products compared to forecasted amounts. This would require a change in the reserve for excess or obsolete inventory, resulting in a charge to net income during the period of the change. Charges for inventory write-downs are included in cost of products on the consolidated statements of income. Once written down, inventories are carried at this lower cost basis until sold or scrapped. Supplies consist of items not used directly in the production of goods, such as maintenance and other supplies utilized in the production area.

Funds held for customers – Our merchant services business temporarily holds funds collected from credit card networks and internet transaction processing on behalf of certain merchants. Our treasury management cash receipt processing business remits a portion of cash receipts to our clients the business day following receipt, and our payroll services business collects funds from clients to pay their payroll and related taxes. We hold these funds temporarily until payments are remitted to the clients' employees and the appropriate taxing authorities. Certain of our customer contracts include legal restrictions regarding the use of these funds.

All of these funds, consisting of cash and, at times, available-for-sale debt securities, are reported as funds held for customers on the consolidated balance sheets. The corresponding liability for these obligations is also reported as funds held for customers on the consolidated balance sheets. The available-for-sale debt securities are carried at fair value, with unrealized gains and losses included in accumulated other comprehensive loss on the consolidated balance sheets. Earnings on funds held for customers are included in revenue on the consolidated statements of income and were not material during the past 3 years.

Long-term investments – Long-term investments consist primarily of cash surrender values of company-owned life insurance policies. Certain of these policies fund amounts due under our deferred compensation plan and our inactive supplemental executive retirement plan (Note 12).

Property, plant and equipment – Property, plant and equipment, including leasehold and other improvements that extend an asset's useful life or productive capabilities, are stated at historical cost less accumulated depreciation. Buildings have been assigned useful lives of 40 years and machinery and equipment are generally assigned useful lives ranging from 1 year to 11 years, with a weighted-average useful life of 7 years as of December 31, 2023. Buildings are depreciated using the 150% declining balance method, and machinery and equipment is depreciated using the sum-of-the-years' digits method. Leasehold and building improvements are depreciated on the straight-line basis over the estimated useful life of the property or the life of the lease, whichever is shorter. Amortization of assets that are recorded under finance leases is included in depreciation expense. Maintenance and repairs are expensed as incurred.

Fully depreciated assets are retained in property, plant and equipment until disposal. Gains or losses resulting from the disposition of property, plant and equipment are included in SG&A expense on the consolidated statements of income, unless presented separately as a component of gain or loss on sale of businesses and long-lived assets.

Leases – We determine if an arrangement is a lease at inception by considering whether a contract explicitly or implicitly identifies assets deployed in the arrangement and whether we have obtained substantially all of the economic benefits from the use of the underlying assets and direct how and for what purpose the assets are used during the term of the contract. Lease expense is recognized on the straight-line basis over the lease term and is included in total cost of revenue and in SG&A expense on the consolidated statements of income. Interest on finance leases is included in interest expense on the consolidated statements of income.

Operating leases are included in operating lease assets, accrued liabilities and operating lease liabilities on the consolidated balance sheets. Finance leases are included in property, plant and equipment, accrued liabilities and other non-current liabilities on the consolidated balance sheets. Lease assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Lease assets and liabilities are recognized at the commencement date based on the present value of lease payments over the lease term. We have elected to exclude leases with original terms of 1 year or less from lease assets and liabilities, and we separate nonlease components, such as common area maintenance charges and utilities, from the associated lease component for real estate leases, based on their estimated fair values. As our lease agreements typically do not provide an implicit rate, we use our incremental borrowing rate, based on information available at the lease commencement date, in determining the present value of lease payments. Certain of our lease agreements include options to extend or terminate the lease. The lease term takes into account these options to extend or terminate the lease when it is reasonably certain that we will exercise the option.

Intangibles – Intangible assets are stated at historical cost less accumulated amortization. Amortization expense is generally determined on the straight-line basis, with the exception of customer lists, which are generally amortized using accelerated methods that reflect the pattern in which we receive the economic benefit of the asset. Intangibles have been assigned useful lives ranging from 1 year to 15 years, with a weighted-average useful life of 7 years as of December 31, 2023.

Each reporting period, we evaluate the remaining useful lives of our amortizable intangibles to determine whether events or circumstances warrant a revision to the remaining period of amortization. If our estimate of an asset's remaining useful life is revised, the remaining carrying amount of the asset is amortized prospectively over the revised remaining useful life. Gains or losses resulting from the disposition of intangibles are included in SG&A expense on the consolidated statements of income, unless presented separately as a component of gain or loss on sale of businesses and long-lived assets.

We capitalize costs of software developed or obtained for internal use, including website development costs, once the preliminary project stage has been completed, management commits to funding the project and it is probable that the project will be completed and the software will be used to perform the function intended. Capitalized costs include only (1) external direct costs of materials and services consumed in developing or obtaining internal-use software, (2) payroll and payroll-related costs for employees who are directly associated with and who devote time to the internal-use software project, and (3) interest costs incurred, when significant, while developing internal-use software. Costs incurred in populating websites with information about the company or products are expensed as incurred. Capitalization of costs ceases when the project is substantially complete and ready for its intended use. The carrying value of internal-use software is reviewed in accordance with our policy on impairment of long-lived assets and amortizable intangibles.

We incur costs in connection with the development of certain software products that we sell to our customers. Costs for the development of software products to be sold are expensed as incurred until technological feasibility is established, at which time, such costs are capitalized until the product is available for general release to customers.

Business combinations – We periodically complete business combinations that align with our business strategy. The identifiable assets acquired and liabilities assumed are recorded at their estimated fair values, and the results of operations of each acquired business are included in our consolidated statements of income from their acquisition dates. The purchase price for each acquisition is equivalent to the fair value of the consideration transferred, including any contingent consideration. Goodwill is recognized for the excess of the purchase price over the net fair value of the assets acquired and liabilities assumed. While we use our best estimates and assumptions in estimating the fair values of the assets acquired and liabilities assumed, our fair value estimates are inherently uncertain and subject to refinement. As a result, during the measurement period, which may be up to 1 year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Any adjustments required after the measurement period are recorded in the consolidated statements of income. Transaction costs related to acquisitions are expensed as incurred and are included in SG&A expense on the consolidated statements of income.

Impairment of long-lived assets and amortizable intangibles – We evaluate the recoverability of property, plant, equipment and amortizable intangibles not held for sale whenever events or changes in circumstances indicate that an asset group's carrying amount may not be recoverable. Such circumstances could include, but are not limited to, (1) a significant decrease in the market value of an asset, (2) a significant adverse change in the extent or manner in which an asset is used or in its physical condition, or (3) an accumulation of costs significantly in excess of the amount originally expected for the acquisition or construction of an asset. We compare the carrying amount of the asset group to the estimated undiscounted future cash flows associated with it. If the sum of the expected future net cash flows is less than the carrying value of the asset group being evaluated, an impairment loss is recognized. The impairment loss is calculated as the amount by which the carrying value of the asset group exceeds its estimated fair value. As quoted market prices are not available for the majority of our assets, the estimate of fair value is based on various valuation techniques, including the discounted value of estimated future cash flows.

We evaluate the recoverability of property, plant, equipment and intangibles held for sale by comparing the asset group's carrying amount with its estimated fair value less costs to sell. If the estimated fair value less costs to sell is less than the carrying value of the asset group, an impairment loss is recognized. The impairment loss is calculated as the amount by which the carrying value of the asset group exceeds its estimated fair value less costs to sell.

The evaluation of asset impairment requires us to make assumptions about future cash flows over the life of the asset group being evaluated. These assumptions require judgment and actual results may differ from assumed and estimated amounts.

Impairment of goodwill – We evaluate the carrying value of goodwill as of July 31st of each year and between annual evaluations if events occur or circumstances change that may indicate a possible impairment. Such circumstances could include, but are not limited to, (1) a significant adverse change in legal factors or in business climate, (2) unanticipated competition, (3) an adverse change in market conditions that is indicative of a decline in the fair value of the assets, (4) a change in our business strategy, or (5) an adverse action or assessment by a regulator. Information regarding the results of our goodwill impairment analyses can be found in Note 8.

To analyze goodwill for impairment, we must assign our goodwill to individual reporting units. Identification of reporting units includes an analysis of the components that comprise each of our operating segments, which considers, among other things, the manner in which we operate our business and the availability of discrete financial information. Components of an

operating segment are aggregated to form a reporting unit if the components have similar economic characteristics. We periodically review our reporting units to ensure that they continue to reflect the manner in which we operate our business.

When completing our annual goodwill impairment analysis, we have the option to first assess qualitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of a reporting unit is less than its carrying amount. If, after this qualitative assessment, we determine it is not more likely than not that the fair value of a reporting unit is less than its carrying amount, then performing the quantitative impairment test is unnecessary.

When performing a quantitative analysis of goodwill, we calculate the estimated fair value of the reporting unit and compare this amount to the carrying amount of the reporting unit's net assets, including goodwill. We utilize a discounted cash flow model to calculate the estimated fair value of a reporting unit. This approach is a valuation technique under which we estimate future cash flows using the reporting unit's financial forecast from the perspective of an unrelated market participant. Using historical trending and internal forecasting techniques, we project revenue and apply our fixed and variable cost experience rates to the projected revenue to arrive at the future cash flows. A terminal value is then applied to the projected cash flow stream. Future estimated cash flows are discounted to their present value to calculate the estimated fair value. The discount rate used is the market-value-weighted average of our estimated cost of capital derived using both known and estimated customary market metrics. In determining the estimated fair values of our reporting units, we are required to estimate a number of factors, including revenue growth rates, terminal growth rates, direct costs, the discount rate and the allocation of shared and corporate items. When completing a quantitative analysis for all of our reporting units, the summation of our reporting units' fair values is compared to our consolidated fair value, as indicated by our market capitalization, to evaluate the reasonableness of our calculations. If the carrying amount of a reporting unit's net assets exceeds its estimated fair value, an impairment loss is recorded for the difference, not to exceed the carrying amount of goodwill.

Assets held for sale – We record assets held for sale at the lower of their carrying value or estimated fair value less costs to sell. Assets are classified as held for sale on our consolidated balance sheets when all of the following conditions are met: (1) management has the authority and commits to a plan to sell the assets; (2) the assets are available for immediate sale in their present condition; (3) there is an active program to locate a buyer and the plan to sell the assets has been initiated; (4) the sale of the assets is probable within 1 year; (5) the assets are being actively marketed at a reasonable sales price relative to their current fair value; and (6) it is unlikely that the plan to sell will be withdrawn or that significant changes to the plan will be made. As of December 31, 2023 and December 31, 2022, there were no disposal groups classified as held for sale on the consolidated balance sheets.

Prepaid product discounts – Certain of our financial institution contracts require prepaid product discounts in the form of upfront cash payments or accruals for amounts owed to financial institution clients. These prepaid product discounts are included in other non-current assets on the consolidated balance sheets and are generally amortized as reductions of revenue on the straight-line basis over the contract term. These amounts are currently being amortized over periods of up to 14.5 years, with a weighted-average period of 6 years as of December 31, 2023. Whenever events or changes occur that impact the related contract, including significant declines in the anticipated profitability, we evaluate the carrying value of prepaid product discounts to determine if they are impaired. Should a financial institution cancel a contract prior to the agreement's termination date, or should the volume of orders realized through a financial institution fall below contractually-specified minimums, we generally have a contractual right to a refund of the remaining unamortized prepaid product discount.

Loans and notes receivable from distributors – We have, at times, provided loans to certain of our Promotional Solutions distributors to allow them to purchase the operations of other small business distributors. We have also sold distributors and small business customer lists that we own in exchange for notes receivable. These loans and notes receivable are included in other current assets and other non-current assets on the consolidated balance sheets. Interest rates on these receivables generally range from 6% to 7% and reflect market interest rates at the time the transactions were executed. Interest is accrued as earned. Accrued interest included in loans and notes receivable was not material as of December 31, 2023 or December 31, 2022.

In determining the allowance for credit losses related to loans and notes receivable, we utilize a loss-rate analysis based on historical loss information, current delinquency rates, the credit quality of the loan recipients and the portfolio mix to determine an appropriate credit risk measurement, adjusted to reflect current loan-specific risk characteristics and changes in environmental conditions affecting our small business distributors. Changes in conditions that may affect our distributors include, but are not limited to, general economic conditions, changes in the markets for their products and services and changes in governmental regulations. In completing our analysis, we utilize a reversion methodology for periods beyond the reasonable and supportable forecast period, as many of our loans and notes receivable have longer terms. Allowances for impaired loans are generally determined based on collateral values or the present value of estimated cash flows. Further information regarding our allowance for credit losses can be found in Note 3.

We generally withhold commissions payable to the distributors to settle the monthly payments due on the receivables, thereby mitigating the risk that the receivables will not be collected. Our notes receivable also generally allow us to acquire a

distributor's customer list in the case of default. As of December 31, 2023 and December 31, 2022, past due amounts and receivables placed on non-accrual status were not material. The determination to place receivables on non-accrual status or to resume the accrual of interest is completed on a case-by-case basis, evaluating the specifics of each situation.

Cloud computing arrangements – Implementation costs incurred in a hosting arrangement that is a service contract are recorded as non-current assets on the consolidated balance sheets. Implementation costs include activities such as integrating, configuring and customizing the related software. In evaluating whether our cloud computing arrangements include a software license, we consider whether we have the contractual right to take possession of the software at any time during the hosting period without significant penalty and whether it is feasible for us to either run the software on our own hardware or contract with another party unrelated to the vendor to host the software. If we determine that a cloud computing arrangement includes a software license, we account for the software license element of the arrangement consistent with the acquisition of other software licenses. If we determine that a cloud computing arrangement does not include a software license, we account for the implementation costs as non-current assets. In both cases, the remaining elements of the arrangement are accounted for as a service contract. The capitalized cloud computing implementation costs are amortized on the straight-line basis over the fixed, non-cancellable term of the associated hosting arrangement plus any reasonably certain renewal periods. We apply the same impairment model to these assets as we use to evaluate internally-developed software for impairment.

Advertising costs – We expense non-direct response advertising costs as incurred. Advertising costs qualifying for deferral were not material to our consolidated financial statements. The total amount of advertising expense was \$32,673 in 2023, \$38,731 in 2022 and \$47,461 in 2021.

Litigation – We are party to legal actions and claims arising in the ordinary course of business. We record accruals for legal matters when the expected outcome of these matters is either known or considered probable and can be reasonably estimated. Our accruals do not include related legal and other costs expected to be incurred in defense of legal actions. These costs are expensed as incurred. Further information regarding litigation can be found in Note 15.

Income taxes – We estimate our income tax provision based on the various jurisdictions where we conduct business. We estimate our current tax liability and record deferred income taxes resulting from temporary differences between the financial reporting basis of assets and liabilities and their respective tax reporting bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences reverse. Net deferred tax assets are recognized to the extent that realization of such benefits is more likely than not. To the extent that we believe realization is not likely, we establish a valuation allowance against the net deferred tax assets.

We are subject to tax audits in numerous domestic and foreign tax jurisdictions. Tax audits are often complex and can require several years to complete. In the normal course of business, we are subject to challenges from the Internal Revenue Service ("IRS") and other tax authorities regarding the amount of taxes due. These challenges may alter the timing or amount of taxable income or deductions, or the allocation of income among tax jurisdictions. We recognize the benefits of tax return positions in the financial statements when they are more likely than not to be sustained by the taxing authorities based solely on the technical merits of the position. If the recognition threshold is met, the tax benefit is measured and recognized as the largest amount of tax benefit that, in our judgment, is greater than 50% likely to be realized. Accrued interest and penalties related to unrecognized tax positions is included in our provision for income taxes on the consolidated statements of income.

Derivative financial instruments – We have outstanding interest rate swaps related to our variable-rate debt. Further Information regarding these derivative financial instruments can be found in Note 7.

We do not use derivative financial instruments for speculative or trading purposes. Our policy is that all derivative transactions must be linked to an existing balance sheet item or firm commitment, and the notional amount cannot exceed the value of the exposure being hedged.

We recognize all derivative financial instruments in the consolidated financial statements at fair value regardless of the purpose or intent for holding the instrument. Changes in the fair value of derivative financial instruments are recognized periodically either in income or in shareholders' equity as a component of accumulated other comprehensive loss, depending on whether the derivative financial instrument qualifies for hedge accounting, and if so, whether it qualifies as a fair value hedge or a cash flow hedge and whether the hedge is effective. Generally, changes in the fair value of derivatives accounted for as fair value hedges are recorded in income along with the portion of the change in the fair value of the hedged items that relate to the hedged risk. Changes in the fair value of derivatives accounted for as cash flow hedges, to the extent they are effective as hedges, are recorded in accumulated other comprehensive loss, net of tax. We classify the cash flows from derivative instruments that have been designated as fair value or cash flow hedges in the same category as the cash flows from the items being hedged. Changes in the fair value of derivatives not qualifying as hedges and the ineffective portion of hedges are included in net income.

Revenue recognition – Product revenue is recognized when control of the goods is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods. In most cases, control is

transferred when products are shipped. We have elected to account for shipping and handling activities that occur after the customer has obtained control of the product as fulfillment activities and not as separate performance obligations. We recognize the vast majority of our service revenue as services are provided. The majority of our contracts are for the shipment of tangible products or the delivery of services that have a single performance obligation or include multiple performance obligations where control is transferred at the same time.

Revenue is presented on the consolidated statements of income net of rebates, discounts, amortization of prepaid product discounts, and taxes collected concurrent with revenue-producing activities. Many of our check supply contracts with financial institutions provide for rebates on certain products. We record these rebates as reductions of revenue and as accrued liabilities on the consolidated balance sheets when the related revenue is recognized. Amounts billed to customers for shipping and handling are included in revenue, while the related shipping and handling costs are reflected in cost of products and are accrued when the related revenue is recognized.

When another party is involved in providing goods or services to a customer, we must determine whether our obligation is to provide the specified good or service itself (i.e., we are the principal in the transaction) or to arrange for that good or service to be provided by the other party (i.e., we are an agent in the transaction). When we are responsible for satisfying a performance obligation, based on our ability to control the product or service provided, we are considered the principal and revenue is recognized for the gross amount of consideration. When the other party is primarily responsible for satisfying a performance obligation, we are considered the agent and revenue is recognized in the amount of any fee or commission to which we are entitled. We sell certain Promotional Solutions and Checks products and services through a network of distributors. We have determined that we are the principal in these transactions, and revenue is recorded for the gross amount of consideration.

Certain of our contracts for data-driven marketing solutions have variable consideration that is contingent on the success of the marketing campaign (i.e., pay-for-performance). We recognize revenue for estimated variable consideration as services are provided based on the most likely amount to be realized. Revenue is recognized to the extent that it is probable that a significant reversal of revenue will not occur when the contingency is resolved. Estimates regarding the recognition of variable consideration are updated each quarter. Typically, the amount of consideration for these contracts is finalized within 4 months.

Our payment terms vary by type of customer and the products or services offered. The time period between invoicing and when payment is due is not significant. For certain products, services and customer types, we require payment before the products or services are delivered to the customer. When a customer pays in advance, primarily for treasury management solutions, we defer the revenue and recognize it as the services are performed, generally over a period of less than 1 year. Deferred revenue is included in accrued liabilities and other non-current liabilities on the consolidated balance sheets.

In addition to the amounts included in deferred revenue, we will recognize revenue in future periods related to remaining performance obligations for certain of our data-driven marketing and treasury management solutions contracts. Generally, these contracts have terms of 1 year or less and many have terms of 3 months or less, and therefore, we do not consider any potential financing component to be significant. The amount of revenue related to these unsatisfied performance obligations is not material to our annual consolidated revenue. When the revenue recognized for uncompleted contracts exceeds the amount of customer billings and the right to receive the consideration is conditional, a contract asset is recorded. These amounts are included in revenue in excess of billings on the consolidated balance sheets. Additionally, we record an asset for unbilled receivables when the revenue recognized has not been billed to customers in accordance with contractually stated billing terms and the right to receive the consideration is unconditional. These amounts are also included in revenue in excess of billings on the consolidated balance sheets.

We record sales commissions related to obtaining check supply and treasury management solution contracts, as well as contract acquisition costs within our merchant services business, as other non-current assets on the consolidated balance sheets. These contract acquisition costs are amortized as SG&A expense on the straight-line basis, which approximates the timing of the transfer of goods or services to the customer. These amounts are being amortized over periods of 2 years to 5 years. We expense contract acquisition costs as incurred when the amortization period would be 1 year or less.

Restructuring and integration expense – We incur restructuring and integration expense as a result of fundamental changes in the manner in which certain business functions are conducted, including initiatives to drive earnings and cash flow growth and the consolidation and migration of certain applications and processes. We also incur expenses resulting from our various cost management efforts, including facility closings and the relocation of business activities. These expenses consist of costs that are expensed when incurred, such as consulting, project management services, internal labor and costs associated with facility closures and consolidations. In addition, we accrue the costs of employee termination benefits payable under our ongoing severance benefit plan. We record accruals for employee termination benefits when it is probable that a liability has been incurred and the amount of the liability is reasonably estimable. We are required to make estimates and assumptions in calculating these accruals as, on some occasions, employees choose to voluntarily leave the company prior to their termination date or they secure another position within the company. In these situations, the employees do not receive termination benefits. To the extent our assumptions and estimates differ from our actual costs, subsequent adjustments to restructuring and

integration accruals have been and will be required. Restructuring and integration accruals are included in accrued liabilities on the consolidated balance sheets.

Employee share-based compensation – Our share-based compensation consists of non-qualified stock options, restricted stock units, performance share unit awards and an employee stock purchase plan. Employee share-based compensation expense is included in total cost of revenue and in SG&A expense on the consolidated statements of income, based on the functional areas of the employees receiving the awards, and is recognized as follows:

- The fair value of stock options is measured on the grant date using the Black-Scholes option pricing model. The related compensation expense is recognized on the straight-line basis, net of estimated forfeitures, over the options' vesting periods.
- The fair value of a portion of our restricted stock unit awards is measured on the grant date based on the market value of our common stock. The related compensation expense, net of estimated forfeitures, is recognized over the applicable service period.
- Certain of our restricted stock unit awards may be settled in cash if an employee voluntarily chooses to leave the company. These awards are included in accrued liabilities and other non-current liabilities on the consolidated balance sheets and are remeasured at fair value as of each balance sheet date.
- Compensation expense resulting from the 15% discount provided under our employee stock purchase plan is recognized over each 3 month purchase period.
- Our performance share unit awards specify certain performance and market-based conditions that must be achieved in order for the awards to vest. For the portion of the awards based on a performance condition, the performance target is not considered in determining the fair value of the awards and thus, fair value is measured on the grant date based on the market value of our common stock. The related compensation expense for this type of award is recognized, net of estimated forfeitures, over the related service period. The amount of compensation expense is dependent on our periodic assessment of the probability of the targets being achieved and our estimate, which may vary over time, of the number of shares that ultimately will be issued. For the portion of the awards based on a market condition, fair value is calculated on the grant date using the Monte Carlo simulation model. All compensation cost for these awards is recognized, net of estimated forfeitures, over the related service period, even if the market condition is never satisfied.

Postretirement benefit plan – We have historically provided certain health care benefits for a large number of retired U.S. employees hired prior to January 1, 2002. Our postretirement benefit income and obligation are calculated utilizing various actuarial assumptions and methodologies. These assumptions include, but are not limited to, the discount rate, the expected long-term rate of return on plan assets, estimated medical claims, the expected health care cost trend rate and the average remaining life expectancy of plan participants. We analyze the assumptions used each year when we complete our actuarial valuation of the plan. When actual events differ from our assumptions or when we change the assumptions used, an actuarial gain or loss results. The gain or loss is recognized immediately on the consolidated balance sheets within accumulated other comprehensive loss and is amortized into postretirement benefit income over the average remaining life expectancy of inactive plan participants, as a large percentage of our plan participants are classified as inactive.

The valuation of our postretirement plan requires judgment about circumstances that are inherently uncertain, including projected equity market performance, the number of plan participants, catastrophic health care events for our plan participants and a significant change in medical costs. Actual results may differ from assumed and estimated amounts.

Earnings per share – We calculate earnings per share using the two-class method, as we have unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalent payments. The two-class method is an earnings allocation formula that determines earnings per share for each class of common stock and participating security according to dividends declared and participation rights in undistributed earnings. Basic earnings per share is based on the weighted-average number of common shares outstanding during the year. Diluted earnings per share is based on the weighted-average number of common shares outstanding during the year, adjusted to give effect to potential common shares such as stock options and other awards that are not participating securities, calculated using the treasury stock method.

Comprehensive income – Comprehensive income includes charges and credits to shareholders' equity that are not the result of transactions with shareholders. Our total comprehensive income consists of net income, changes in the funded status and amortization of amounts related to our postretirement benefit plans, unrealized gains and losses on cash flow hedges, unrealized gains and losses on available-for-sale debt securities, and foreign currency translation adjustments. The items of other comprehensive income (loss) are included in accumulated other comprehensive loss on the consolidated balance sheets and statements of shareholders' equity, net of their related tax impacts. We release stranded income tax effects from accumulated other comprehensive loss when the circumstances upon which they are premised cease to exist.

NOTE 2: NEW ACCOUNTING PRONOUNCEMENTS

Accounting Standards Adopted During 2023

ASU No. 2022-02 – In March 2022, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2022-02, *Troubled Debt Restructurings and Vintage Disclosures*. This standard modifies the accounting for troubled debt restructurings by creditors and modifies certain disclosure requirements. We adopted this standard on January 1, 2023 and elected to apply it prospectively to modifications occurring on or after January 1, 2023. Adoption of this standard did not impact our financial position as of December 31, 2023 or our results of operations for the year ended December 31, 2023.

Reference rate reform – In March 2020, the FASB issued ASU No. 2020-04, *Facilitation of the Effects of Reference Rate Reform on Financial Reporting*. This standard provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships and other transactions affected by the discontinuation of the London Interbank Offered Rate ("LIBOR") or by another reference rate expected to be discontinued because of reference rate reform. In January 2021, the FASB issued ASU No. 2021-01, *Reference Rate Reform (Topic 848): Scope*, which clarified the scope and application of the original guidance. Effective March 20, 2023, we modified our existing credit facility and our September 2022 interest rate swap agreement (Note 7) to utilize the Secured Overnight Financing Rate ("SOFR") as the reference rate in the agreements. In accounting for these modifications, we adopted the reference rate reform guidance on a prospective basis as allowed under the provisions of ASU No. 2022-06, *Deferral of the Sunset Date of Topic 848*. Adoption of these standards did not have a material impact on our consolidated financial statements.

Accounting Standards Not Yet Adopted

ASU No. 2023-07 – In November 2023, the FASB issued ASU No. 2023-07, *Improvements to Reportable Segment Disclosures*, which is intended to improve reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses. The guidance is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. Early adoption is permitted. The guidance is to be applied retrospectively to all prior periods presented in the financial statements. Upon transition, the segment expense categories and amounts disclosed in the prior periods should be based on the significant segment expense categories identified and disclosed in the period of adoption. We are currently evaluating the potential impact of adopting this new guidance on the related disclosures within our consolidated financial statements.

ASU No. 2023-09 – In December 2023, the FASB issued ASU No. 2023-09, *Improvements to Income Tax Disclosures*, which modifies the required income tax disclosures to include specific categories in the income tax rate reconciliation and to require the disclosure of income tax payments by jurisdiction, among other changes. The guidance is effective for annual periods beginning after December 15, 2024. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. The standard should be applied on a prospective basis, but retrospective application is permitted. We are currently evaluating the potential impact of adopting this new guidance on the related disclosures within our consolidated financial statements.

NOTE 3: SUPPLEMENTAL BALANCE SHEET AND CASH FLOW INFORMATION

Trade accounts receivable – Net trade accounts receivable was comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Trade accounts receivable – gross ⁽¹⁾	\$ 197,546	\$ 210,799
Allowance for credit losses	(6,541)	(4,182)
Trade accounts receivable – net	<u>\$ 191,005</u>	<u>\$ 206,617</u>

⁽¹⁾ Includes unbilled receivables of \$43,673 as of December 31, 2023 and \$43,902 as of December 31, 2022.

Changes in the allowance for credit losses for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Balance, beginning of year	\$ 4,182	\$ 4,130	\$ 6,428
Bad debt expense	7,045	4,185	223
Write-offs and other	(4,686)	(4,133)	(2,521)
Balance, end of year	<u>\$ 6,541</u>	<u>\$ 4,182</u>	<u>\$ 4,130</u>

Inventories and supplies – Inventories and supplies were comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Finished and semi-finished goods	\$ 34,194	\$ 40,715
Raw materials and supplies	17,339	17,952
Reserve for excess and obsolete items	(9,445)	(6,400)
Inventories and supplies, net of reserve	<u>\$ 42,088</u>	<u>\$ 52,267</u>

Changes in the reserve for excess and obsolete items for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Balance, beginning of year	\$ 6,400	\$ 5,132	\$ 11,748
Amounts charged to expense	4,105	2,940	3,513
Write-offs and sales	(1,060)	(1,672)	(10,129)
Balance, end of year	<u>\$ 9,445</u>	<u>\$ 6,400</u>	<u>\$ 5,132</u>

Available-for-sale debt securities – Available-for-sale debt securities were comprised of the following:

<i>(in thousands)</i>	December 31, 2023			
	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
Cash equivalents:				
Domestic money market fund	\$ 22,000	\$ —	\$ —	\$ 22,000
Available-for-sale debt securities	<u>\$ 22,000</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 22,000</u>

<i>(in thousands)</i>	December 31, 2022			
	Cost	Gross unrealized gains	Gross unrealized losses	Fair value
Cash equivalents:				
Domestic money market fund	\$ 5,000	\$ —	\$ —	\$ 5,000
Funds held for customers: ⁽¹⁾				
Canadian and provincial government securities	9,190	—	(1,064)	8,126
Available-for-sale debt securities	<u>\$ 14,190</u>	<u>\$ —</u>	<u>\$ (1,064)</u>	<u>\$ 13,126</u>

⁽¹⁾ Funds held for customers, as reported on the consolidated balance sheet as of December 31, 2022, also included cash of \$294,165.

The domestic money market funds held highly liquid, short-term investments managed by the respective financial institutions. Further information regarding the fair value of available-for-sale debt securities can be found in Note 8.

Revenue in excess of billings – Revenue in excess of billings was comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Conditional right to receive consideration	\$ 20,680	\$ 26,520
Unconditional right to receive consideration ⁽¹⁾	5,427	12,241
Revenue in excess of billings	<u>\$ 26,107</u>	<u>\$ 38,761</u>

⁽¹⁾ Represents revenues that are earned but not currently billable under the related contract terms.

Property, plant and equipment – Property, plant and equipment was comprised of the following at December 31:

<i>(in thousands)</i>	2023			2022		
	Gross carrying amount	Accumulated depreciation	Net carrying amount	Gross carrying amount	Accumulated depreciation	Net carrying amount
Machinery and equipment	\$ 314,778	\$ (262,308)	\$ 52,470	\$ 378,468	\$ (307,838)	\$ 70,630
Buildings and improvements	123,072	(68,391)	54,681	111,916	(67,936)	43,980
Land and improvements	12,790	(3,402)	9,388	14,498	(4,214)	10,284
Property, plant and equipment	<u>\$ 450,640</u>	<u>\$ (334,101)</u>	<u>\$ 116,539</u>	<u>\$ 504,882</u>	<u>\$ (379,988)</u>	<u>\$ 124,894</u>

Intangibles – Amortizable intangibles were comprised of the following at December 31:

<i>(in thousands)</i>	2023			2022		
	Gross carrying amount	Accumulated amortization	Net carrying amount	Gross carrying amount	Accumulated amortization	Net carrying amount
Internal-use software	\$ 554,825	\$ (412,364)	\$ 142,461	\$ 529,306	\$ (395,514)	\$ 133,792
Customer lists/relationships	363,298	(235,557)	127,741	497,882	(312,986)	184,896
Technology-based intangibles	97,633	(54,251)	43,382	99,613	(47,478)	52,135
Partner relationships	74,911	(14,031)	60,880	74,682	(9,094)	65,588
Trade names	39,367	(23,792)	15,575	44,185	(26,510)	17,675
Software to be sold	36,900	(35,195)	1,705	36,900	(32,007)	4,893
Intangibles	<u>\$ 1,166,934</u>	<u>\$ (775,190)</u>	<u>\$ 391,744</u>	<u>\$ 1,282,568</u>	<u>\$ (823,589)</u>	<u>\$ 458,979</u>

Based on the intangibles in service as of December 31, 2023, estimated amortization expense for each of the next five years ending December 31 is as follows:

<i>(in thousands)</i>	Estimated amortization expense
2024	\$ 107,127
2025	75,217
2026	48,604
2027	37,075
2028	28,806

In the normal course of business, we acquire and develop internal-use software. We also, at times, purchase customer lists and partner relationships. During 2021, we acquired other intangible assets in conjunction with the acquisition of First American Payment Systems, L.P. (Note 6). The following intangible assets were capitalized or developed during the years ended December 31:

<i>(in thousands)</i>	2023		2022		2021	
	Amount	Weighted-average amortization period (in years)	Amount	Weighted-average amortization period (in years)	Amount	Weighted-average amortization period (in years)
Internal-use software	\$ 81,349	4	\$ 74,778	3	\$ 75,918	3
Customer lists/relationships	—	—	18,267	6	149,642	8
Partner relationships	1,385	2	1,587	3	73,095	15
Technology-based intangibles	—	—	—	—	65,000	8
Trade names	—	—	—	—	21,000	10
Intangible additions	\$ 82,734	4	\$ 94,632	4	\$ 384,655	8

Goodwill – Changes in goodwill by reportable business segment and in total were as follows:

<i>(in thousands)</i>	Payments	Data Solutions ⁽¹⁾	Promotional Solutions ⁽¹⁾	Checks	Total
Balance, December 31, 2021:	\$ 895,338	\$ 40,816	\$ 59,175	\$ 434,812	\$ 1,430,141
Currency translation adjustment and other	1,343	—	(99)	—	1,244
Balance, December 31, 2022	\$ 896,681	\$ 40,816	\$ 59,076	\$ 434,812	\$ 1,431,385
Currency translation adjustment and other	(828)	—	33	—	(795)
Balance, December 31, 2023	\$ 895,853	\$ 40,816	\$ 59,109	\$ 434,812	\$ 1,430,590

⁽¹⁾ The Data Solutions and Promotional Solutions balances are net of accumulated impairment charges of \$392,168 and \$193,699, respectively, for each period presented.

Other non-current assets – Other non-current assets were comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Postretirement benefit plan asset (Note 12)	\$ 94,939	\$ 79,343
Cloud computing arrangement implementation costs	59,234	71,547
Prepaid product discounts ⁽¹⁾	40,376	44,824
Deferred contract acquisition costs ⁽²⁾	21,103	21,300
Loans and notes receivable from distributors, net of allowance for credit losses ⁽³⁾	12,443	13,259
Other	23,087	30,081
Other non-current assets	\$ 251,182	\$ 260,354

⁽¹⁾ Amortization of prepaid product discounts was \$33,370 for 2023, \$34,400 for 2022 and \$31,784 for 2021.

⁽²⁾ Amortization of deferred contract acquisition costs was \$11,061 for 2023, \$8,206 for 2022 and \$4,975 for 2021.

⁽³⁾ Amount includes the non-current portion of loans and notes receivable. The current portion of these receivables is included in other current assets on the consolidated balance sheets and was \$987 as of December 31, 2023 and \$961 as of December 31, 2022.

Changes in the allowance for credit losses related to loans and notes receivable from distributors for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Balance, beginning of year	\$ 1,024	\$ 2,830	\$ 3,995
Bad debt (benefit) expense	(96)	1,195	(1,165)
Write-offs	—	(2,599)	—
Other	—	(402)	—
Balance, end of year	<u>\$ 928</u>	<u>\$ 1,024</u>	<u>\$ 2,830</u>

We categorize loans and notes receivable into risk categories based on information about the ability of the borrowers to service their debt, including current financial information, historical payment experience, current economic trends and other factors. The highest quality receivables are assigned a 1-2 internal grade. Those that have a potential weakness requiring management's attention are assigned a 3-4 internal grade.

The following table presents loans and notes receivable from distributors, including the current portion, by credit quality indicator and by year of origination, as of December 31, 2023.

<i>(in thousands)</i>	<u>Loans and notes receivable from distributors amortized cost basis by origination year</u>				Total
	2023	2020	2019	Prior	
Risk rating:					
1-2 internal grade	\$ 342	\$ 1,003	\$ 370	\$ 12,643	\$ 14,358
3-4 internal grade	—	—	—	—	—
Loans and notes receivable	<u>\$ 342</u>	<u>\$ 1,003</u>	<u>\$ 370</u>	<u>\$ 12,643</u>	<u>\$ 14,358</u>

Accrued liabilities – Accrued liabilities were comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Employee cash bonuses, including sales incentives	\$ 49,446	\$ 57,398
Deferred revenue ⁽¹⁾	35,343	47,012
Operating lease liabilities (Note 14)	13,562	12,780
Customer rebates	12,718	12,153
Interest	10,481	7,314
Restructuring and integration (Note 9)	9,689	8,528
Wages and payroll liabilities, including vacation	8,605	20,264
Prepaid product discounts due within one year	4,477	4,179
Other	47,106	48,776
Accrued liabilities	<u>\$ 191,427</u>	<u>\$ 218,404</u>

⁽¹⁾ Revenue recognized for amounts included in deferred revenue at the beginning of the period was \$43,624 for 2023, \$47,547 for 2022 and \$39,366 for 2021.

Supplemental cash flow information – Supplemental cash flow information was as follows for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
Reconciliation of cash, cash equivalents, restricted cash and restricted cash equivalents to the consolidated balance sheets:			
Cash and cash equivalents	\$ 71,962	\$ 40,435	\$ 41,231
Restricted cash and restricted cash equivalents included in funds held for customers	383,134	294,165	241,488
Non-current restricted cash included in other non-current assets	2,937	2,815	2,772
Total cash, cash equivalents, restricted cash and restricted cash equivalents	<u>\$ 458,033</u>	<u>\$ 337,415</u>	<u>\$ 285,491</u>
Interest paid	\$ 115,556	\$ 87,108	\$ 46,621
Income taxes paid	47,945	38,629	18,761
Non-cash investing activities:			
Accrued purchases of capital assets	\$ 11,924	\$ 1,340	\$ 6,477
Non-cash consideration for customer list purchases ⁽¹⁾	—	5,096	15,528
Non-cash financing activities:			
Vesting of restricted stock unit awards	8,538	13,602	16,646

⁽¹⁾ Consists of pre-acquisition amounts owed to us by the sellers.

Information regarding operating and finance leases executed in each period can be found in Note 14.

NOTE 4: EARNINGS PER SHARE

The following table reflects the calculation of basic and diluted earnings per share. During each period, certain stock options, as noted below, were excluded from the calculation of diluted earnings per share because their effect would have been antidilutive.

(in thousands, except per share amounts)

	2023	2022	2021
Earnings per share – basic:			
Net income	\$ 26,227	\$ 65,530	\$ 62,772
Net income attributable to non-controlling interest	(107)	(135)	(139)
Net income attributable to Deluxe	26,120	65,395	62,633
Income allocated to participating securities	(38)	(47)	(46)
Income attributable to Deluxe available to common shareholders	\$ 26,082	\$ 65,348	\$ 62,587
Weighted-average shares outstanding	43,553	43,025	42,378
Earnings per share – basic	\$ 0.60	\$ 1.52	\$ 1.48
Earnings per share – diluted:			
Net income	\$ 26,227	\$ 65,530	\$ 62,772
Net income attributable to non-controlling interest	(107)	(135)	(139)
Net income attributable to Deluxe	26,120	65,395	62,633
Income allocated to participating securities	(38)	(35)	(26)
Remeasurement of share-based awards classified as liabilities	—	(497)	(438)
Income attributable to Deluxe available to common shareholders	\$ 26,082	\$ 64,863	\$ 62,169
Weighted-average shares outstanding	43,553	43,025	42,378
Dilutive impact of potential common shares	290	285	449
Weighted-average shares and potential common shares outstanding	43,843	43,310	42,827
Earnings per share – diluted	\$ 0.59	\$ 1.50	\$ 1.45
Antidilutive options excluded from calculation	1,380	1,732	2,179

NOTE 5: OTHER COMPREHENSIVE INCOME (LOSS)

Reclassification adjustments – Information regarding amounts reclassified from accumulated other comprehensive loss to net income was as follows:

Accumulated other comprehensive loss components	Amounts reclassified from accumulated other comprehensive loss			Affected line item in consolidated statements of income
	2023	2022	2021	
<i>(in thousands)</i>				
Amortization of postretirement benefit plan items:				
Prior service credit	\$ 1,421	\$ 1,421	\$ 1,421	Other income, net
Net actuarial loss	(2,273)	(900)	(1,629)	Other income, net
Total amortization	(852)	521	(208)	Other income, net
Tax benefit (expense)	67	(315)	(123)	Income tax provision
Amortization of postretirement benefit plan items, net of tax	(785)	206	(331)	Net income
Debt securities:				
Realized loss on debt securities	(1,468)	(8)	—	Other income, net
Tax benefit	376	2	—	Income tax provision
Realized loss on debt securities, net of tax	(1,092)	(6)	—	Net income
Cash flow hedges:				
Realized gain (loss) on cash flow hedges	3,227	20	(1,384)	Interest expense
Tax (expense) benefit	(872)	(5)	361	Income tax provision
Realized gain (loss) on cash flow hedges, net of tax	2,355	15	(1,023)	Net income
Foreign currency translation adjustment ⁽¹⁾	(863)	(5,550)	—	Gain on sale of businesses and long-lived assets
Total reclassifications, net of tax	\$ (385)	\$ (5,335)	\$ (1,354)	

⁽¹⁾ Relates to the sale of our web hosting businesses. Further information can be found in Note 6.

Accumulated other comprehensive loss – Changes in the components of accumulated other comprehensive loss were as follows:

<i>(in thousands)</i>	Postretirement benefit plans	Net unrealized loss on debt securities	Net unrealized loss on cash flow hedges	Foreign currency translation adjustment	Accumulated other comprehensive loss
Balance, December 31, 2020	\$ (21,956)	\$ (90)	\$ (5,351)	\$ (14,036)	\$ (41,433)
Other comprehensive income (loss) before reclassifications	6,194	(254)	2,067	580	8,587
Amounts reclassified from accumulated other comprehensive loss	331	—	1,023	—	1,354
Net other comprehensive income (loss)	6,525	(254)	3,090	580	9,941
Balance, December 31, 2021	(15,431)	(344)	(2,261)	(13,456)	(31,492)
Other comprehensive (loss) income before reclassifications	(11,235)	(571)	4,869	(4,170)	(11,107)
Amounts reclassified from accumulated other comprehensive loss	(206)	6	(15)	5,550	5,335
Net other comprehensive (loss) income	(11,441)	(565)	4,854	1,380	(5,772)
Balance, December 31, 2022	(26,872)	(909)	2,593	(12,076)	(37,264)
Other comprehensive income (loss) before reclassifications	6,263	(183)	(524)	1,295	6,851
Amounts reclassified from accumulated other comprehensive loss	785	1,092	(2,355)	863	385
Net other comprehensive income (loss)	7,048	909	(2,879)	2,158	7,236
Balance, December 31, 2023	\$ (19,824)	\$ —	\$ (286)	\$ (9,918)	\$ (30,028)

NOTE 6: ACQUISITION AND DIVESTITURES

Acquisition

On June 1, 2021, we acquired all of the equity of First American Payment Systems, L.P. ("First American") in a cash transaction for \$958,514, net of cash, cash equivalents, restricted cash and restricted cash equivalents acquired. First American is a large-scale payments technology company that provides partners and merchants with comprehensive in-store, online and mobile payment solutions. The transaction was funded by our revolving credit facility and additional debt we issued in June 2021 (Note 13). The acquisition resulted in goodwill, which is non-deductible for tax purposes, as First American provides an end-to-end payments technology platform that provides significant leverage to accelerate organic growth. Transaction costs related to the acquisition totaled \$18,913 in 2021. The goodwill and results of operations of First American from the date of acquisition are included in the Payments segment.

Information regarding goodwill by reportable business segment and the useful lives of acquired intangibles can be found in Note 3. Information regarding the calculation of the estimated fair values of the acquired intangibles can be found in Note 8.

Operating results for First American for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Revenue	\$ 364,232	\$ 347,709	\$ 194,976
Net income attributable to Deluxe	14,266	5,794	1,806

The above results for the year ended December 31, 2022 include restructuring and integration expense of \$5,452.

Pro forma financial information (unaudited) – The following unaudited pro forma financial information summarizes our consolidated results of operations for the year ended December 31, 2021 as though the acquisition occurred on January 1, 2020:

<i>(in thousands)</i>	2021
Revenue	\$ 2,156,313
Net income attributable to Deluxe	74,843

The unaudited pro forma financial information was prepared in accordance with the accounting policies described in Note 1. The pro forma information includes adjustments to reflect the additional amortization that would have been charged assuming the fair value adjustments to intangible assets had been applied from January 1, 2020. The pro forma information also includes adjustments to reflect the additional interest expense on the debt we issued to fund the acquisition (Note 13), and the acquisition transaction costs we incurred during 2021 are excluded.

This pro forma financial information is for informational purposes only. It does not reflect the integration of the businesses or any synergies that resulted from the acquisition. As such, it is not indicative of the results of operations that would have been achieved had the acquisition been consummated on January 1, 2020. In addition, the pro forma amounts are not indicative of future operating results.

Divestitures / Business Exits

During the past 2 years, we have exited certain of our businesses and facilities, allowing us to focus our resources on the key growth areas of payments and data, while allowing us to optimize our operations.

2023 divestiture / business exits – In June 2023, we completed the sale of our North American web hosting and logo design businesses for net cash proceeds of \$31,230, and we recognized a pretax gain of \$17,486. These businesses generated annual revenue of approximately \$66,000 during 2022, primarily in our Data Solutions segment. The assets and liabilities sold were not material to our consolidated balance sheet.

In September and December 2023, we executed agreements allowing for the conversion of our U.S. and Canadian payroll and human resources services customers to other service providers. During 2023, we received initial cash consideration of \$15,669 under these agreements, which is included in proceeds from sale of businesses and long-lived assets on the consolidated statement of cash flows. We recognized related income of \$10,700 during the fourth quarter of 2023, which is included in gain on sale of businesses and long-lived assets on the consolidated statement of income. Recognition of the remaining income will be based on actual customer conversion and retention activity, which we expect will be completed during 2024. These businesses generated annual revenue of approximately \$27,000 in the Payments segment during 2023. Our U.S. and Canadian payroll and human resources businesses comprise a reporting unit that had a goodwill balance of \$7,743 as of December 31, 2023. We evaluated this goodwill for impairment as of December 31, 2023, and, based on our quantitative analysis, we concluded that it was not impaired as of that date. In conjunction with our phased transition out of these businesses, we expect that this goodwill will be fully impaired in 2024, at the point when the remaining cash flows generated by these businesses in 2024 no longer support the carrying value of the reporting unit.

2023 facility sales – During the fourth quarter of 2023, we sold 2 facilities for net cash proceeds of \$8,094, and we recognized a pretax gain of \$3,792.

2022 divestitures – In May 2022, we completed the sale of our Australian web hosting business for net cash proceeds of \$17,620, and we recognized a pretax gain of \$15,166. This business generated annual revenue in our Data Solutions segment of \$23,766 during 2021. The assets and liabilities sold were not material to our consolidated balance sheet.

During 2022, we also sold the assets of our Promotional Solutions strategic sourcing and retail packaging businesses. These businesses generated annual revenue of approximately \$29,000 during 2021. Neither the gain on these sales nor the assets and liabilities sold were material to our consolidated financial statements.

2022 facility sale – In May 2022, we sold a facility for net cash proceeds of \$6,929, and we recognized a pretax gain of \$2,361.

NOTE 7: DERIVATIVE FINANCIAL INSTRUMENTS

As part of our interest rate risk management strategy, we entered into interest rate swaps, which we designated as cash flow hedges, to mitigate variability in interest payments on a portion of our variable-rate debt (Note 13). In March 2023, we modified our September 2022 interest rate swap agreement to utilize SOFR as the reference rate in the agreement. Information regarding our accounting for this modification can be found in Note 2. Our derivative instruments were comprised of the following at December 31:

<i>(in thousands)</i>	Notional amount	Interest Rate	Maturity	Balance Sheet Location	December 31, 2023 Fair Value Asset / (Liability)	December 31, 2022 Fair Value Asset / (Liability)
June 2023 amortizing interest rate swap:						
	\$ 271,659	4.249 %	June 2026	Other non-current liabilities	\$ (2,158)	\$ —
March 2023 interest rate swap:						
	200,000	4.003 %	March 2026	Other non-current assets	287	—
September 2022 interest rate swap:						
	300,000	3.990 %	September 2025	Other non-current assets	1,519	2,409
July 2019 interest rate swap:						
	200,000	1.798 %	March 2023	Other current assets	—	1,184

Changes in the fair values of the interest rate swaps are recorded in accumulated other comprehensive loss on the consolidated balance sheets and are subsequently reclassified into interest expense as interest payments are made on the variable-rate debt. The fair values of the derivatives are calculated based on the applicable reference rate curve on the date of measurement. The cash flow hedges were fully effective as of December 31, 2023 and December 31, 2022, and their impact on consolidated net income and our consolidated statements of cash flows was not material. We also expect that the amount that will be reclassified to interest expense during the next 12 months will not be material.

NOTE 8: FAIR VALUE MEASUREMENTS

Goodwill impairment analyses

We evaluate the carrying value of goodwill as of July 31 of each year and between annual evaluations if events occur or circumstances change that could indicate a possible impairment. Our policy on impairment of goodwill, which is included in Note 1, explains our methodology for assessing goodwill impairment.

2023 annual goodwill impairment analyses – In completing the 2023 annual goodwill impairment analysis as of July 31, 2023, we elected to perform qualitative analyses for all of our reporting units. These qualitative analyses evaluated factors, including, but not limited to, economic, market and industry conditions, cost factors and the overall financial performance of the reporting units. We also considered the most recent quantitative analyses completed in prior periods. In completing these assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount. As such, no goodwill impairment charges were recorded as a result of our 2023 annual impairment analysis.

2022 annual goodwill impairment analyses – In completing the 2022 annual goodwill impairment analysis as of July 31, 2022, we elected to perform qualitative analyses for all of our reporting units, with the exception of our Data Analytics reporting unit. These qualitative analyses evaluated factors, including, but not limited to, economic, market and industry conditions, cost factors and the overall financial performance of the reporting units. We also considered the most recent quantitative analyses completed in prior periods. In completing these assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount. The quantitative analysis of our Data Analytics reporting unit indicated that the estimated fair value of this reporting unit exceeded its carrying

value by approximately \$46,000, or by 39% above the carrying value of its net assets. As such, no goodwill impairment charges were recorded as a result of our 2022 annual impairment analysis.

2021 annual goodwill impairment analyses – In completing the 2021 annual goodwill impairment analysis as of July 31, 2021, we elected to perform qualitative analyses for all of our reporting units. These qualitative analyses evaluated factors, including, but not limited to, economic, market and industry conditions, cost factors and the overall financial performance of the reporting units. We also considered the most recent quantitative analyses completed in prior periods. In completing these assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount. As such, no goodwill impairment charges were recorded as a result of our 2021 annual impairment analysis.

Second quarter 2021 realignment of reporting units – As a result of changes in our financial management reporting process during the second quarter of 2021, we concluded that a realignment of our reporting units was required. These changes did not require a revision to our reportable business segments. We analyzed goodwill for impairment immediately prior to this realignment by performing qualitative analyses for the reporting units with goodwill. The qualitative analyses evaluated factors, including, but not limited to, economic, market and industry conditions, cost factors and the overall financial performance of the reporting units. We also considered the last quantitative analyses we completed. In completing these assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount.

The realignment of our reporting units, effective April 1, 2021, did not change the reporting units within our Data Solutions or Checks segments. Within our Payments segment, the number of reporting units increased from 1 to 4, and within our Promotional Solutions segment, the number of reporting units increased from 1 to 2. Upon completing the realignment, we reallocated the carrying value of goodwill to our new reporting units based on their relative fair values. Immediately subsequent to the realignment, we completed qualitative analyses for the reporting units that changed and to which goodwill was assigned. We determined that it was appropriate to perform qualitative assessments, given that our analysis indicated that the change in reporting units did not mask or prevent an impairment that existed at the time of the change. In completing the qualitative assessments, we noted no changes in events or circumstances that indicated that it was more likely than not that the fair value of any reporting unit was less than its carrying amount. As such, no goodwill impairment charges were recorded as a result of these analyses.

Business combinations

For all acquisitions, we are required to measure the fair value of the net identifiable tangible and intangible assets and liabilities acquired. Information regarding our 2021 acquisition can be found in Note 6 and information regarding the useful lives of acquired intangibles can be found in Note 3. The identifiable net assets acquired during 2021 were comprised primarily of intangible assets, accounts receivable and operating lease assets and liabilities. The fair value of the customer relationship intangibles acquired during 2021, as well as the partner relationship intangibles, was estimated using the multi-period excess earnings method. This valuation model estimates revenues and cash flows derived from the asset and then deducts portions of the cash flow that can be attributed to supporting assets, such as a trade name or fixed assets, that contributed to the generation of the cash flows. The resulting cash flow, which is attributable solely to the customer relationship or partner relationship asset, is then discounted at a rate of return commensurate with the risk of the asset to calculate a present value. Key assumptions used in all of these calculations included same-customer revenue, merchant and partner growth rates; estimated earnings; estimated customer and partner retention rates, based on the acquirees' historical information; and the discount rate.

The estimated fair values of the acquired trade names and technology-based intangibles were estimated using the relief from royalty method, which calculates the cost savings associated with owning rather than licensing the assets. Assumed royalty rates were applied to projected revenue for the estimated remaining useful lives of the assets to estimate the royalty savings. Royalty rates are selected based on the attributes of the asset, including its recognition and reputation in the industry, and in the case of trade names, with consideration of the specific profitability of the products sold under a trade name and supporting assets.

The estimated fair value of the acquired accounts receivable approximated the gross contractual amounts receivable and we expect to collect all acquired receivables. The fair value of the acquired operating lease liabilities was estimated as if the leases were new. As such, we reassessed the lease term, the discount rate and the lease payments. The fair value of the related operating lease assets was measured at the same amount as the lease liability, adjusted to reflect favorable or unfavorable terms of the leases as compared to market terms.

Recurring fair value measurements

Cash and cash equivalents and funds held for customers included available-for-sale debt securities (Note 3). These securities included domestic money market funds and, as of December 31, 2022, included a private mutual fund investment that invested in Canadian and provincial government securities. The cost of the money market funds, which were traded in an active

market, approximated their fair values because of the short-term nature of the underlying investments. The mutual fund investment was not traded in an active market and its fair value was determined by obtaining quoted prices in active markets for the underlying securities held by the fund. Unrealized gains and losses, net of tax, were included in accumulated other comprehensive loss on the consolidated balance sheets. The cost of securities sold was determined using the average cost method. The loss realized on the sale of the mutual fund investment during the fourth quarter of 2023 was included in other income, net on the consolidated statement of income. The fair values of our derivative instruments (Note 7) are calculated based on the applicable reference rate curve on the date of measurement.

Information regarding the fair values of our financial instruments was as follows:

		Fair value measurements using				
		December 31, 2023		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
<i>(in thousands)</i>	Balance sheet location	Carrying value	Fair value			
<i>Measured at fair value through comprehensive income:</i>						
Available-for-sale debt securities	Cash and cash equivalents	\$ 22,000	\$ 22,000	\$ 22,000	\$ —	\$ —
Derivative assets (Note 7)	Other non-current assets	1,806	1,806	—	1,806	—
Derivative liability (Note 7)	Other non-current liabilities	(2,158)	(2,158)	—	(2,158)	—
<i>Amortized cost:</i>						
Cash	Cash and cash equivalents	49,962	49,962	49,962	—	—
Cash	Funds held for customers	383,134	383,134	383,134	—	—
Cash	Other non-current assets	2,937	2,937	2,937	—	—
Loans and notes receivable from distributors	Other current and non-current assets	13,430	13,249	—	—	13,249
Long-term debt	Current portion of long-term debt and long-term debt	1,592,851	1,554,028	—	1,554,028	—

Fair value measurements using

<i>(in thousands)</i>	Balance sheet location	December 31, 2022		Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)
		Carrying value	Fair value			
<i>Measured at fair value through comprehensive income:</i>						
Available-for-sale debt securities	Cash and cash equivalents	\$ 5,000	\$ 5,000	\$ 5,000	\$ —	\$ —
Available-for-sale debt securities	Funds held for customers	8,126	8,126	—	8,126	—
Derivative assets (Note 7)	Other current and non-current assets	3,593	3,593	—	3,593	—
<i>Amortized cost:</i>						
Cash	Cash and cash equivalents	35,435	35,435	35,435	—	—
Cash	Funds held for customers	294,165	294,165	294,165	—	—
Cash	Other non-current assets	2,815	2,815	2,815	—	—
Loans and notes receivable from distributors	Other current and non-current assets	14,220	13,315	—	—	13,315
Long-term debt	Current portion of long-term debt and long-term debt	1,644,276	1,574,417	—	1,574,417	—

NOTE 9: RESTRUCTURING AND INTEGRATION EXPENSE

Restructuring and integration expense consists of costs related to initiatives to drive earnings and cash flow growth and also includes costs related to the consolidation and migration of certain applications and processes, including our financial and sales management systems. These costs consist primarily of consulting, project management services and internal labor, as well as other costs associated with our initiatives, such as costs related to facility closures and consolidations. In addition, we have incurred employee severance costs across functional areas. Restructuring and integration expense is not allocated to our reportable business segments.

We are currently pursuing several initiatives designed to support our growth strategy and to increase our efficiency, including several initiatives that we collectively refer to as our North Star program. The goal of these initiatives is to further drive shareholder value by (1) expanding our earnings before interest, taxes, depreciation and amortization ("EBITDA") growth trajectory, (2) increasing cash flow, (3) paying down debt, and (4) improving our leverage ratio. Our various initiatives include a balanced mix of structural cost reductions focused on organizational structure, processes and operational improvements, in addition to workstreams to drive revenue growth. We have already combined like-for-like capabilities, reduced management layers and consolidated core operations to run more efficiently and to create the ability to invest in high impact talent to accelerate our growth businesses of payments and data. The associated expense, which consisted primarily of consulting and severance costs, was approximately \$45,000 during 2023, and we anticipate that we will incur an additional \$70,000 to \$90,000 of North Star restructuring and integration expense over the next 2 years.

Restructuring and integration expense is reflected on the consolidated statements of income as follows for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
Total cost of revenue	\$ 12,230	\$ 607	\$ 4,197
Operating expenses	78,245	62,529	54,750
Restructuring and integration expense	<u>\$ 90,475</u>	<u>\$ 63,136</u>	<u>\$ 58,947</u>

Restructuring and integration expense was comprised of the following for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
External consulting and other costs	\$ 52,290	\$ 32,067	\$ 26,676
Employee severance benefits	18,103	12,829	9,076
Internal labor	8,723	7,989	7,948
Other	11,359	10,251	15,247
Restructuring and integration expense	<u>\$ 90,475</u>	<u>\$ 63,136</u>	<u>\$ 58,947</u>

Our restructuring and integration accruals are included in accrued liabilities on the consolidated balance sheets and represent expected cash payments required to satisfy the remaining severance obligations to those employees already terminated and those expected to be terminated under our various initiatives. The majority of the employee reductions, as well as the related severance payments, are expected to be completed by mid-2024.

Changes in our restructuring and integration accruals were as follows:

<i>(in thousands)</i>	Employee severance benefits
Balance, December 31, 2020	\$ 6,798
Charges	10,897
Reversals	(1,821)
Payments	(10,202)
Balance, December 31, 2021	5,672
Charges	13,782
Reversals	(953)
Payments	(9,973)
Balance, December 31, 2022	8,528
Charges	18,653
Reversals	(550)
Payments	(16,942)
Balance, December 31, 2023	<u>\$ 9,689</u>

The charges and reversals presented in the rollforward of our restructuring and integration accruals do not include items charged directly to expense as incurred, as those items are not reflected in accrued liabilities on the consolidated balance sheets.

NOTE 10: INCOME TAX PROVISION

Income before income taxes was comprised of the following for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
U.S.	\$ (7,636)	\$ 51,640	\$ 62,361
Foreign	47,435	32,738	31,442
Income before income taxes	<u>\$ 39,799</u>	<u>\$ 84,378</u>	<u>\$ 93,803</u>

The components of the income tax provision were as follows for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
Current tax provision:			
Federal	\$ 20,999	\$ 27,789	\$ (61)
State	6,331	8,507	2,389
Foreign	18,118	11,081	10,945
Total current tax provision	<u>45,448</u>	<u>47,377</u>	<u>13,273</u>
Deferred tax provision:			
Federal	(20,357)	(21,368)	15,889
State	(4,389)	(5,710)	1,958
Foreign	(7,130)	(1,451)	(89)
Total deferred tax provision	<u>(31,876)</u>	<u>(28,529)</u>	<u>17,758</u>
Income tax provision	<u>\$ 13,572</u>	<u>\$ 18,848</u>	<u>\$ 31,031</u>

The effective tax rate on pretax income reconciles to the U.S. federal statutory tax rate for the years ended December 31 as follows:

	2023	2022	2021
Income tax at federal statutory rate	21.0 %	21.0 %	21.0 %
Change in valuation allowances	17.5 %	7.2 %	0.1 %
Tax impact of share-based compensation	6.7 %	3.2 %	0.9 %
Tax on repatriation of foreign earnings	6.2 %	2.2 %	4.9 %
Foreign tax rate differences	5.7 %	1.9 %	1.7 %
Non-deductible executive compensation	4.1 %	2.2 %	1.7 %
Return to provision adjustments	2.0 %	(1.9 %)	—
State income tax expense, net of federal income tax benefit	2.0 %	2.7 %	2.4 %
Change in state deferred income tax rates	1.7 %	0.3 %	0.1 %
Non-deductible acquisition costs	0.2 %	0.1 %	1.5 %
Business exits (Note 6)	(30.2 %)	(15.8 %)	—
Research and development tax credit	(3.0 %)	(1.2 %)	(0.9 %)
Other	0.2 %	0.4 %	(0.3 %)
Effective tax rate	<u>34.1 %</u>	<u>22.3 %</u>	<u>33.1 %</u>

In June 2023, we completed the sale of our North American web hosting business, and in May 2022, we completed the sale of our Australian web hosting business. We recognized capital losses on these transactions for tax purposes, and we recorded valuation allowances for the portion of the capital loss carryovers that we do not currently expect to realize. In December 2023, we executed an agreement allowing for the conversion of our Canadian payroll and human resources services customers to another service provider. We recognized a capital gain on this transaction for tax purposes, which we were able to partially offset with capital loss carryforwards. The capital loss carryforwards had been previously offset with a valuation allowance, and as such, we reversed the previously recognized valuation allowance.

We repatriated foreign earnings held in cash by our Canadian subsidiaries of \$32,931 during 2023, \$25,526 during 2022 and \$85,285 during 2021. The associated tax expense included in the income tax provision was \$2,168 in 2023, \$1,818 in 2022 and \$4,555 in 2021. We believe the accumulated and remaining cash of our Canadian subsidiaries is sufficient to meet their working capital needs. The historical unremitted Canadian earnings as of December 31, 2021 will continue to be reinvested indefinitely in the operations of those subsidiaries. Deferred income taxes have not been recognized on those earnings as of December 31, 2023. If we were to repatriate our foreign cash and cash equivalents into the U.S. at one time, the tax effects would generally be limited to foreign withholding taxes on any such distribution. As of December 31, 2023, the amount of cash and cash equivalents held by our foreign subsidiaries was \$25,270, primarily in Canada.

A reconciliation of the beginning and ending amount of unrecognized tax benefits, excluding accrued interest and penalties and the federal benefit of deductible state income tax, was as follows:

<i>(in thousands)</i>	2023	2022	2021
Balance, beginning of year	\$ 2,635	\$ 2,551	\$ 3,361
Additions for tax positions of current year	249	250	169
Additions for tax positions of prior years	91	270	8
Reductions for tax positions of prior years	—	(45)	(673)
Settlements	(303)	—	—
Lapse of statutes of limitations	(282)	(391)	(314)
Balance, end of year	<u>\$ 2,390</u>	<u>\$ 2,635</u>	<u>\$ 2,551</u>

If the unrecognized tax benefits as of December 31, 2023 were recognized in the consolidated financial statements, income tax expense would decrease \$2,390. Accruals for interest and penalties, excluding the tax benefits of deductible interest, were \$583 as of December 31, 2023 and \$731 as of December 31, 2022. Our income tax provision included expense for interest and penalties of \$70 in 2023, \$97 in 2022 and \$84 in 2021. We believe that it is reasonably possible that a decrease of up to \$1,300 in unrecognized tax benefits may be necessary within the next 12 months, primarily related to the lapse of statutes of limitations. We also believe it is reasonably possible that an increase of up to \$2,000 in unrecognized tax benefits may be necessary within the next 12 months, related to potential legislative and regulatory changes in certain state and local jurisdictions. Due to the nature of the underlying liabilities and the extended time frame often needed to resolve income tax uncertainties, we cannot provide reliable estimates of the amount or timing of cash payments that may be required to settle these liabilities.

The statute of limitations for federal tax assessments for 2019 and prior years has expired. In general, income tax returns for the years 2020 through 2023 remain subject to examination by federal, foreign, state and city tax jurisdictions. In the event that we have determined not to file income tax returns with a particular state or city, all years remain subject to examination by the tax jurisdiction.

The ultimate outcome of tax matters may differ from our estimates and assumptions. Unfavorable settlement of any particular issue would require the use of cash and could result in increased income tax expense. Favorable resolution would result in reduced income tax expense.

Tax-effected temporary differences that gave rise to deferred tax assets and liabilities as of December 31 were as follows:

<i>(in thousands)</i>	2023		2022	
	Deferred tax assets	Deferred tax liabilities	Deferred tax assets	Deferred tax liabilities
Goodwill	\$ —	\$ 40,572	\$ —	\$ 30,848
Employee benefit plans	—	14,482	—	11,009
Cloud computing arrangements	—	10,337	—	13,969
Revenue recognition	—	7,187	—	7,312
Prepaid assets	—	5,385	—	5,474
Property, plant and equipment	—	4,529	3,139	—
Acquisition costs	—	1,604	—	1,691
Operating leases	20,078	15,923	16,681	12,387
Deductible interest carryforward	34,038	—	16,403	—
Net operating loss, tax credit and capital loss carryforwards	22,639	—	16,720	—
Reserves and accruals	9,522	—	6,935	—
Gain on payroll and human resources business exit (Note 6)	6,100	—	—	—
Intangible assets	4,510	—	—	16,901
Inventories	2,804	—	2,018	—
Deferred revenue	1,406	—	2,951	—
All other	670	719	954	1,768
Total deferred taxes	101,767	100,738	65,801	101,359
Valuation allowances	(14,984)	—	(7,996)	—
Net deferred taxes	\$ 86,783	\$ 100,738	\$ 57,805	\$ 101,359

The valuation allowances as of December 31, 2023 and December 31, 2022 related primarily to capital loss carryforwards in the U.S and net operating loss carryforwards in various state jurisdictions that we do not currently expect to fully realize. Changes in our valuation allowances for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Balance, beginning of year	\$ (7,996)	\$ (10,993)	\$ (11,453)
Expense from change in allowances	(6,979)	(6,086)	(65)
Sale of business (Note 6)	—	8,745	—
Foreign currency translation	(9)	338	525
Balance, end of year	\$ (14,984)	\$ (7,996)	\$ (10,993)

As of December 31, 2023, we had the following net operating loss, deductible interest, capital loss and tax credit carryforwards:

- state net operating loss carryforwards and tax credit carryforwards of \$125,881 that expire at various dates between 2024 and 2050;
- federal deductible interest carryforwards of \$127,238 that do not expire; and
- federal capital loss carryforwards of \$57,096 that expire in 2027 and 2028.

NOTE 11: SHARE-BASED COMPENSATION PLANS

Our employee share-based compensation plans consist of our employee stock purchase plan and our long-term incentive plan. Effective April 27, 2022, our shareholders approved the Deluxe Corporation 2022 Stock Incentive Plan, simultaneously terminating our previous plan. Under the current plan, 2.5 million shares of common stock plus any shares released as a result of the forfeiture or termination of awards issued under our prior plan are reserved for issuance, with 2.4 million shares remaining

available for issuance as of December 31, 2023. Under our current and previous plans, we have granted non-qualified stock options, restricted stock units and performance share unit awards. Our current plan also allows for the issuance of restricted stock and stock appreciation rights, none of which were outstanding as of December 31, 2023. Our policy regarding the recognition of compensation expense for employee share-based awards can be found in Note 1.

The following amounts were recognized in our consolidated statements of income for share-based compensation awards for the years ended December 31:

<i>(in thousands)</i>	2023	2022	2021
Restricted stock units	\$ 14,092	\$ 16,632	\$ 20,407
Performance share unit awards	4,127	3,840	4,338
Stock options	1,845	2,665	4,187
Employee stock purchase plan	461	539	545
Total share-based compensation expense	<u>\$ 20,525</u>	<u>\$ 23,676</u>	<u>\$ 29,477</u>
Income tax benefit	<u>\$ (7,408)</u>	<u>\$ (6,853)</u>	<u>\$ (7,714)</u>

As of December 31, 2023, the total compensation expense for unvested awards not yet recognized in our consolidated statements of income was \$22,213, net of the effect of estimated forfeitures. This amount is expected to be recognized over a weighted-average period of 1.9 years.

Non-qualified stock options – All options allow for the purchase of shares of common stock at prices equal to the stock's market value at the date of grant. Options become exercisable beginning 1 year after the grant date, with one-fourth vesting each year over 4 years. Options granted under the current plan may be exercised up to 10 years following the grant date. Awards granted prior to 2019 have a 7 year life.

No stock options were granted during 2023 or 2022. The weighted-average grant-date fair value of options granted was \$11.57 per option for 2021. The following weighted-average assumptions were used in the Black-Scholes option pricing model to determine the fair value of these stock option grants:

	2021
Risk-free interest rate	0.7 %
Dividend yield	2.9 %
Expected volatility	42.0 %
Weighted-average option life (in years)	4.8

The risk-free interest rate for periods within the expected option life is based on the U.S. Treasury yield curve in effect at the grant date. The dividend yield is estimated over the expected life of the option based on historical dividends paid. Expected volatility is based on the historical volatility of our stock over the most recent historical period equivalent to the expected life of the option. The expected option life is the average length of time over which we expect the employee groups will exercise their options, based on historical experience with similar grants.

Each option is convertible into 1 share of common stock upon exercise. Information regarding options issued under the current and all previous plans was as follows:

	Number of options <i>(in thousands)</i>	Weighted-average exercise price per option	Aggregate intrinsic value <i>(in thousands)</i>	Weighted-average remaining contractual term <i>(in years)</i>
Outstanding, December 31, 2022	1,732	\$ 44.77		
Forfeited or expired	(352)	44.24		
Outstanding, December 31, 2023	<u>1,380</u>	44.91	\$ —	4.9
Exercisable at December 31, 2023	<u>1,158</u>	45.79	\$ —	4.5

The intrinsic value of a stock award is the amount by which the fair value of the underlying stock exceeds the exercise price of the award. The total intrinsic value of options exercised was \$510 for 2021.

Restricted stock units – We grant restricted stock unit awards to all North American employees, and during 2021 and 2020, we paid a portion of employee bonuses in restricted stock units. We also grant certain other restricted stock unit awards under our long-term incentive plan. These awards generally vest over periods of 3 years or 4 years. Additionally, certain management employees have the option to receive a portion of their bonus payment in the form of restricted stock units. If employees subsequently choose to leave the company, these bonus awards are settled in cash. Cash payments to settle these awards were not material during the past 3 years. In addition to awards granted to employees, non-employee members of our board of directors can elect to receive all or a portion of their fees in the form of restricted stock units.

Each restricted stock unit is convertible into 1 share of common stock upon completion of the vesting period. Information regarding our restricted stock units was as follows:

	Number of units <i>(in thousands)</i>	Weighted-average grant date fair value per unit	Weighted-average remaining vesting period <i>(in years)</i>
Outstanding at December 31, 2022	1,045	\$ 34.10	
Granted	987	18.98	
Vested	(475)	35.77	
Forfeited	(336)	25.44	
Outstanding at December 31, 2023	1,221	23.34	2.4

Of the awards outstanding at December 31, 2023, 37 thousand restricted stock units with a value of \$798 were included in accrued liabilities and other non-current liabilities on the consolidated balance sheet. As of December 31, 2023, these units had a fair value of \$21.45 per unit and a weighted-average remaining contractual term of 4 months.

The fair market value of restricted stock units that vested was \$8,538 for 2023, \$13,602 for 2022 and \$16,646 for 2021.

Performance share unit awards – Our performance share unit awards have a 3 year vesting period. Shares will be issued at the end of the vesting period if performance targets relating to revenue and total shareholder return are achieved. If employment is terminated for any reason prior to the 1 year anniversary of the commencement of the performance period, the award is forfeited. On or after the 1 year anniversary of the commencement of the performance period, a pro-rata portion of the shares awarded at the end of the performance period is issued in the case of qualified retirement, death, disability, involuntary termination without cause or resignation for good reason, as defined in the agreement.

The following weighted-average assumptions were used in the Monte Carlo simulation model in determining the fair value of market-based performance share units granted:

	2023	2022	2021
Risk-free interest rate	4.4 %	1.8 %	0.3 %
Dividend yield	6.1 %	3.7 %	4.4 %
Expected volatility	54.3 %	54.9 %	55.6 %

The risk-free interest rate for periods within the expected award life is based on the U.S. Treasury yield curve in effect at the grant date. The dividend yield is estimated over the expected life of the award based on historical dividends paid. Expected volatility is based on the historical volatility of our stock over the expected life of the award.

Information regarding unvested performance share units was as follows:

	Performance share units <i>(in thousands)</i>	Weighted-average grant date fair value per unit	Weighted-average remaining contractual term <i>(in years)</i>
Unvested at December 31, 2022	461	\$ 34.35	
Granted ⁽¹⁾	298	18.34	
Forfeited	(235)	27.12	
Unvested at December 31, 2023	524	28.50	1.5

⁽¹⁾ Reflects awards granted assuming achievement of performance goals at target.

Employee stock purchase plan – During 2023, 196 thousand shares were issued under this plan at prices ranging from \$12.61 to \$15.77. During 2022, 149 thousand shares were issued under this plan at prices ranging from \$15.62 to \$25.59. During 2021, 108 thousand shares were issued under this plan at prices ranging from \$18.84 to \$37.32.

NOTE 12: POSTRETIREMENT BENEFITS

We have historically provided certain health care benefits for a large number of retired U.S. employees. Employees hired prior to January 1, 2002 become eligible for benefits if they attain the appropriate years of service and age prior to retirement. Employees hired on January 1, 2002 or later are not eligible to participate in the plan. In addition to our retiree health care plan, we also have an inactive U.S. supplemental executive retirement plan ("SERP"). This plan is not adding new participants and all of the current participants are retired. The SERP has no plan assets, but our obligation is fully funded by investments in company-owned life insurance policies.

Obligations and funded status – Changes in our benefit obligation, plan assets and funded status for the years ended December 31 were as follows:

<i>(in thousands)</i>	Postretirement benefit plan	Pension plan⁽¹⁾
Change in benefit obligation:		
Benefit obligation, December 31, 2021	\$ 57,781	\$ 3,060
Interest cost	1,069	52
Net actuarial gain	(13,839)	(414)
Benefits paid from plan assets and company funds	(5,302)	(324)
Benefit obligation, December 31, 2022	39,709	2,374
Interest cost	1,874	111
Net actuarial (gain) loss	(785)	128
Benefits paid from plan assets and company funds	(4,823)	(324)
Benefit obligation, December 31, 2023	<u>\$ 35,975</u>	<u>\$ 2,289</u>
Change in plan assets:		
Fair value of plan assets, December 31, 2021	\$ 144,800	\$ —
Loss on plan assets	(22,116)	—
Benefits paid	(3,632)	—
Fair value of plan assets, December 31, 2022	119,052	—
Return on plan assets	15,241	—
Benefits paid	(3,379)	—
Fair value of plan assets, December 31, 2023	<u>\$ 130,914</u>	<u>\$ —</u>
Funded status, December 31, 2022	<u>\$ 79,343</u>	<u>\$ (2,374)</u>
Funded status, December 31, 2023	<u>\$ 94,939</u>	<u>\$ (2,289)</u>

⁽¹⁾ The accumulated benefit obligation equals the projected benefit obligation.

The funded status of our plans was recognized on the consolidated balance sheets as of December 31 as follows:

<i>(in thousands)</i>	Postretirement benefit plan		Pension plan	
	2023	2022	2023	2022
Other non-current assets	\$ 94,939	\$ 79,343	\$ —	\$ —
Accrued liabilities	—	—	324	324
Other non-current liabilities	—	—	1,965	2,050

Amounts included in accumulated other comprehensive loss as of December 31 that have not been recognized as components of postretirement benefit income were as follows:

<i>(in thousands)</i>	2023	2022
Unrecognized net actuarial loss	\$ (29,019)	\$ (39,871)
Unrecognized prior service credit	7,071	8,493
Tax effect	2,124	4,506
Amount recognized in accumulated other comprehensive loss, net of tax	<u>\$ (19,824)</u>	<u>\$ (26,872)</u>

Unrecognized net actuarial gains and losses result from experience different from that assumed and from changes in assumptions. The net actuarial gain recognized during 2023 was driven primarily by demographic and claims experience, partially offset by the decrease in the discount rate used to discount the benefit obligation. The net actuarial gain recognized during 2022 was driven primarily by the increase in the discount rate and a reduction in the number of plan participants. Unrecognized actuarial gains and losses for our postretirement benefit plan are amortized over the average remaining life expectancy of inactive plan participants, as a large percentage of the plan participants are classified as inactive. This amortization period is currently 12 years.

The unrecognized prior service credit relates to our postretirement benefit plan and is a result of previous plan amendments that reduced the accumulated postretirement benefit obligation. A reduction is first used to reduce any existing unrecognized prior service cost, then to reduce any remaining unrecognized transition obligation. The excess is the unrecognized prior service credit. The prior service credit is amortized on the straight-line basis over the remaining life expectancy of plan participants at the time of each plan amendment.

Postretirement benefit income – Postretirement benefit income for the years ended December 31 consisted of the following components:

<i>(in thousands)</i>	2023	2022	2021
Interest cost	\$ 1,985	\$ 1,121	\$ 968
Expected return on plan assets	(7,320)	(7,462)	(7,498)
Amortization of prior service credit	(1,421)	(1,421)	(1,421)
Amortization of net actuarial losses	2,273	900	1,629
Net periodic benefit income	<u>\$ (4,483)</u>	<u>\$ (6,862)</u>	<u>\$ (6,322)</u>

Actuarial assumptions – In measuring the benefit obligations as of December 31, the following discount rate assumptions were used:

	Postretirement benefit plan		Pension plan	
	2023	2022	2023	2022
Discount rate	4.89 %	5.09 %	4.80 %	5.00 %

In measuring net periodic benefit income for the years ended December 31, the following assumptions were used:

	Postretirement benefit plan			Pension plan		
	2023	2022	2021	2023	2022	2021
Discount rate	5.09 %	2.61 %	2.16 %	5.00 %	2.26 %	1.74 %
Expected return on plan assets	6.25 %	5.25 %	5.50 %	—	—	—

The discount rate assumption is based on the rates of return on high-quality, fixed-income instruments currently available whose cash flows approximate the timing and amount of expected benefit payments. In determining the expected long-term rate of return on plan assets, we utilize our historical returns and then adjust these returns for estimated inflation and projected market returns. Our inflation assumption is primarily based on analysis of historical inflation data.

In measuring the benefit obligation as of December 31 for our postretirement benefit plan, the following assumptions for health care cost trend rates were used. These rates are utilized to determine our periodic benefit income for the following year.

	2023		2022		2021	
	Participants under age 65	Participants age 65 and older	Participants under age 65	Participants age 65 and older	Participants under age 65	Participants age 65 and older
Health care cost trend rate assumed for next year	6.6 %	7.3 %	6.6 %	7.3 %	6.9 %	7.6 %
Rate to which the cost trend rate is assumed to decline (the ultimate trend rate)	4.5 %	4.5 %	4.5 %	4.5 %	4.5 %	4.5 %
Year that the rate reaches the ultimate trend rate	2030	2030	2030	2030	2030	2030

Plan assets – The allocation of plan assets by asset category as of December 31 was as follows:

	Postretirement benefit plan	
	2023	2022
U.S. corporate debt securities	54 %	55 %
International equity securities	20 %	20 %
U.S. large capitalization equity securities	18 %	17 %
Mortgage-backed securities	5 %	5 %
U.S. small and mid-capitalization equity securities	3 %	3 %
Total	100 %	100 %

Our postretirement benefit plan has assets that are intended to meet long-term obligations. In order to meet these obligations, we employ a total return investment approach that considers cash flow needs and balances long-term projected returns against expected asset risk, as measured using projected standard deviations. Risk tolerance is established through consideration of projected plan liabilities, the plan's funded status, projected liquidity needs and our financial condition.

The target asset allocation percentages for our postretirement benefit plan are based on our liability and asset projections. The targeted allocation of plan assets is 59% fixed income securities, 20% international equity securities, 18% large capitalization equity securities and 3% small and mid-capitalization equity securities.

Information regarding fair value measurements of plan assets was as follows as of December 31, 2023:

	Fair value measurements using					Fair value as of December 31, 2023
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Investments measured at net asset value		
<i>(in thousands)</i>						
U.S. corporate debt securities	\$ —	\$ 71,225	\$ —	\$ —	\$ 71,225	
International equity securities	—	26,441	—	—	26,441	
U.S. large capitalization equity securities	—	23,143	—	—	23,143	
Mortgage-backed securities	—	6,540	—	—	6,540	
U.S. small and mid-capitalization equity securities	—	3,565	—	—	3,565	
Plan assets	\$ —	\$ 130,914	\$ —	\$ —	\$ 130,914	

Information regarding fair value measurements of plan assets was as follows as of December 31, 2022:

Fair value measurements using					
<i>(in thousands)</i>	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Significant unobservable inputs (Level 3)	Investments measured at net asset value	Fair value as of December 31, 2022
U.S. corporate debt securities	\$ —	\$ 65,700	\$ —	\$ —	\$ 65,700
International equity securities	—	23,835	—	—	23,835
U.S. large capitalization equity securities	—	20,496	—	—	20,496
Mortgage-backed securities	—	5,959	—	—	5,959
U.S. small and mid-capitalization equity securities	—	3,062	—	—	3,062
Plan assets	<u>\$ —</u>	<u>\$ 119,052</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 119,052</u>

The Level 2 investments relate to investment funds that publish daily net asset value ("NAV") per unit. The daily NAV is available to participants in the funds and redemptions can be made daily at the current NAV. The fair value and units are determined and published, and are the basis for current transactions. The investments are not eligible for the NAV practical expedient. However, they are measured at the published NAV because the quoted NAV per unit represents the price at which the investment would be sold in a transaction between independent market participants. Our policy is to recognize transfers between fair value levels as of the end of the reporting period in which the transfer occurred.

Cash flows – We made no contributions to plan assets during the past 3 years.

We have fully funded the SERP obligation with investments in company-owned life insurance policies. The cash surrender value of these policies is included in long-term investments on the consolidated balance sheets and totaled \$7,713 as of December 31, 2023 and \$7,429 as of December 31, 2022.

The following benefit payments are expected to be paid during the years indicated:

<i>(in thousands)</i>	Postretirement benefit plan	Pension plan
2024	\$ 4,711	\$ 320
2025	4,356	300
2026	3,907	280
2027	3,560	260
2028	3,277	250
2029 - 2033	13,049	910

401(k) plan – We maintain a 401(k) plan to provide retirement benefits for certain employees. The plan covers a majority of full-time employees, as well as some part-time employees. Employees generally become eligible to participate in the plan after completing 30 days of service.

401(k) contributions are made by both employees and Deluxe. Employees may contribute up to 50% of eligible wages, subject to IRS limitations and the terms and conditions of the plan. For the majority of employees, we typically match 100% of the first 1% of wages contributed and 50% of the next 5% of wages contributed. Effective April 1, 2020, we suspended the company matching contribution to maintain liquidity during the COVID-19 pandemic. The company match was reinstated on January 1, 2022. Expense recognized for the 401(k) plan matching contribution was \$12,046 for 2023, \$12,958 for 2022 and \$763 for 2021. The expense recognized during 2021 related to First American, which was acquired on June 1, 2021 (Note 6). All employee and employer contributions are remitted to the plan's trustee. Benefits provided by the plan are paid from accumulated funds of the trust.

Employees are provided a broad range of investment options to choose from when investing their 401(k) plan funds. Investing in our common stock is not one of these options, although funds selected by employees may at times hold our common stock.

NOTE 13: DEBT

Debt outstanding was comprised of the following at December 31:

<i>(in thousands)</i>	2023	2022
Senior, secured term loan facility	\$ 877,187	\$ 987,375
Senior, unsecured notes	475,000	475,000
Amounts drawn on senior, secured revolving credit facility	252,000	197,000
Total principal amount	1,604,187	1,659,375
Less: unamortized discount and debt issuance costs	(11,336)	(15,099)
Total debt, net of discount and debt issuance costs	1,592,851	1,644,276
Less: current portion of long-term debt, net of debt issuance costs	(86,153)	(71,748)
Long-term debt	<u>\$ 1,506,698</u>	<u>\$ 1,572,528</u>

Maturities of long-term debt were as follows as of December 31, 2023:

<i>(in thousands)</i>	Debt obligations
2024	\$ 86,625
2025	101,062
2026	941,500
2027	—
2028	—
Thereafter	475,000
Total principal amount	<u>\$ 1,604,187</u>

Credit facility – In June 2021, we executed a senior, unsecured credit facility consisting of a revolving credit facility with commitments of \$500,000 and a \$1,155,000 term loan facility. The revolving credit facility includes a \$40,000 swingline sub-facility and a \$25,000 letter of credit sub-facility. Proceeds from the credit facility were used to terminate our previous credit facility agreement and to fund the acquisition of First American (Note 6). Loans under the revolving credit facility may be borrowed, repaid and re-borrowed until June 1, 2026, at which time all amounts borrowed must be repaid. The term loan facility will be repaid in equal quarterly installments of \$21,656 through June 30, 2025, and \$28,875 from September 30, 2025 through March 31, 2026. The remaining balance is due on June 1, 2026. The term loan facility also includes mandatory prepayment requirements related to asset sales, new debt (other than permitted debt) and excess cash flow, subject to certain limitations. No premium or penalty is payable in connection with any mandatory or voluntary prepayment of the term loan facility.

Interest is payable on the credit facility at a fluctuating rate of interest determined by reference to the eurodollar rate plus an applicable margin ranging from 1.5% to 2.5%, depending on our consolidated total leverage ratio, as defined in the credit agreement. Through March 20, 2023, the eurodollar rate was derived from LIBOR. Effective March 20, 2023, we modified the credit facility to utilize SOFR as the reference rate in the agreement. Information regarding our accounting for this modification can be found in Note 2. A commitment fee is payable on the unused portion of the revolving credit facility at a rate ranging from 0.25% to 0.35%, depending on our consolidated total leverage ratio. Amounts outstanding under the credit facility had a weighted-average interest rate of 6.83% as of December 31, 2023 and 6.07% as of December 31, 2022, including the impact of interest rate swaps that effectively convert a portion of our variable-rate debt to fixed rate debt. Further information regarding the interest rate swaps can be found in Note 7.

Borrowings under the credit facility are collateralized by substantially all of the present and future tangible and intangible personal property held by us and our subsidiaries that have guaranteed our obligations under the credit facility, subject to certain exceptions. The credit agreement contains customary covenants regarding limits on levels of indebtedness, liens, mergers, certain asset dispositions, changes in business, advances, investments, loans and restricted payments. The covenants are subject to a number of limitations and exceptions set forth in the credit agreement. The credit agreement also includes

requirements regarding our consolidated total leverage ratio and our consolidated secured leverage ratio, as defined in the credit agreement. These ratios may not equal or exceed the following amounts during the periods indicated:

Fiscal Quarter Ending	Consolidated total leverage ratio	Consolidated secured leverage ratio
December 31, 2023 through March 31, 2024	4.50 to 1:00	3.50 to 1:00
June 30, 2024 and each fiscal quarter thereafter	4.25 to 1:00	3.50 to 1:00

In addition, we must maintain a minimum interest coverage ratio of at least 3.00 to 1.00 throughout the remaining term of the credit facility. Failure to meet any of the above requirements would result in an event of default that would allow lenders to declare amounts outstanding immediately due and payable and would allow the lenders to enforce their interests against collateral pledged if we were unable to settle the amounts outstanding. We were in compliance with all debt covenants as of December 31, 2023.

The credit agreement contains customary representations and warranties and as a condition to borrowing, requires that all such representations and warranties be true and correct in all material respects on the date of each borrowing, including representations as to no material adverse change in our business, assets, operations or financial condition. If our consolidated total leverage ratio exceeds 2.75 to 1.00, the aggregate annual amount of permitted dividends and share repurchases is limited to \$60,000.

As of December 31, 2023, amounts were available for borrowing under our revolving credit facility as follows:

<i>(in thousands)</i>	Total available
Revolving credit facility commitment	\$ 500,000
Amount drawn on revolving credit facility	(252,000)
Outstanding letters of credit ⁽¹⁾	(7,486)
Net available for borrowing as of December 31, 2023	\$ 240,514

⁽¹⁾We use standby letters of credit primarily to collateralize certain obligations related to our self-insured workers' compensation claims, as well as claims for environmental matters, as required by certain states. These letters of credit reduce the amount available for borrowing under our revolving credit facility.

Senior unsecured notes – In June 2021, we issued \$500,000 of 8.0% senior, unsecured notes that mature in June 2029. The notes were issued via a private placement under Rule 144A of the Securities Act of 1933. Proceeds from the offering, net of discount and offering costs, were \$490,741, resulting in an effective interest rate of 8.3%. The net proceeds from the notes were used to fund the acquisition of First American in June 2021 (Note 6). Interest payments are due each June and December. During the quarter ended September 30, 2022, we settled \$25,000 of these notes via open market purchases. We realized a pretax gain of \$1,726 on these debt retirements that is included in interest expense on the consolidated statement of income.

The indenture governing the notes contains covenants that limit our ability and the ability of our restricted subsidiaries to, among other things, incur additional indebtedness and liens, issue redeemable stock and preferred stock, pay dividends and distributions, make loans and investments, and consolidate or merge or sell all or substantially all of our assets.

NOTE 14: LEASES

We have entered into operating leases for the majority of our facilities with remaining terms of up to 11 years as of December 31, 2023. We utilize leases for these facilities to limit our exposure to risks related to ownership, such as fluctuations in real estate prices, and to maintain flexibility in our real estate utilization. We have also entered into operating leases for certain equipment, primarily production printers and data center equipment. Certain of our leases include options to extend the lease term. The impact of renewal periods was not material to the amounts recorded for operating lease assets and liabilities. We have also entered into a finance lease for our corporate headquarters and, as of December 31, 2022, we had finance leases for certain information technology hardware.

Leases were reflected on the consolidated balance sheets as follows at December 31:

<i>(in thousands)</i>	2023	2022
Operating leases:		
Operating lease assets	\$ 58,961	\$ 47,132
Accrued liabilities	\$ 13,562	\$ 12,780
Operating lease liabilities	58,840	48,925
Total operating lease liabilities	<u>\$ 72,402</u>	<u>\$ 61,705</u>
Weighted-average remaining lease term	6 years	5 years
Weighted-average discount rate	7.8 %	5.2 %
Finance leases:		
Property, plant and equipment, gross	\$ 26,941	\$ 33,060
Accumulated depreciation	(4,188)	(8,630)
Property, plant and equipment, net	<u>\$ 22,753</u>	<u>\$ 24,430</u>
Accrued liabilities	\$ 1,146	\$ 1,050
Other non-current liabilities	26,134	27,287
Total finance lease liabilities	<u>\$ 27,280</u>	<u>\$ 28,337</u>
Weighted-average remaining lease term	14 years	15 years
Weighted-average discount rate	6.0 %	6.0 %

The components of lease expense for the years ended December 31 were as follows:

<i>(in thousands)</i>	2023	2022	2021
Operating lease expense	\$ 18,811	\$ 20,480	\$ 17,485
Finance lease expense:			
Amortization of right-of-use assets	\$ 2,067	\$ 1,853	\$ 1,283
Interest on lease liabilities	1,659	1,697	829
Total finance lease expense	<u>\$ 3,726</u>	<u>\$ 3,550</u>	<u>\$ 2,112</u>

Supplemental cash flow information related to leases for the years ended December 31 was as follows:

<i>(in thousands)</i>	2023	2022	2021
Lease assets obtained in exchange for lease obligations:			
Operating leases ⁽¹⁾	\$ 26,167	\$ 6,294	\$ 38,630
Finance leases ⁽²⁾	—	—	26,941
Cash paid for amounts included in lease obligations:			
Operating cash flows from operating leases ⁽³⁾	\$ 19,922	\$ 19,015	\$ 8,444
Operating cash flows from finance leases	1,659	1,697	8
Financing cash flows from finance leases	2,715	1,290	421

⁽¹⁾ Operating lease assets obtained during 2021 included \$24,396 acquired in conjunction with the acquisition of First American in June 2021 (Note 6).

⁽²⁾ Finance lease assets obtained during 2021 consisted of a lease on our corporate headquarters located in Minnesota that commenced in July 2021.

⁽³⁾ Cash paid for operating leases for 2021 was reduced by lease incentives received of \$9,410.

Maturities of lease liabilities were as follows at December 31, 2023:

<i>(in thousands)</i>	Operating lease obligations	Finance lease obligations
2024	\$ 17,829	\$ 2,743
2025	17,746	2,777
2026	16,210	2,812
2027	12,168	2,847
2028	8,882	2,881
Thereafter	19,294	26,151
Total lease payments	92,129	40,211
Less imputed interest	(19,727)	(12,931)
Present value of lease payments	<u>\$ 72,402</u>	<u>\$ 27,280</u>

NOTE 15: OTHER COMMITMENTS AND CONTINGENCIES

Indemnifications – In the normal course of business, we periodically enter into agreements that incorporate general indemnification language. These indemnification provisions generally encompass third-party claims arising from our products and services, including, without limitation, service failures, breach of security, intellectual property rights, governmental regulations and employment-related matters. Performance under these indemnities would generally be triggered by our breach of the terms of the contract. In disposing of assets or businesses, we often provide representations, warranties and indemnities to cover various risks including, for example, unknown damage to the assets, environmental risks involved in the sale of real estate, liability to investigate and remediate environmental contamination at waste disposal sites and manufacturing facilities, and unidentified tax liabilities and legal matters related to periods prior to disposition. We do not have the ability to estimate the potential liability from such indemnities because they relate to unknown conditions. However, we do not believe that any liability under these indemnities would have a material adverse effect on our financial position, annual results of operations or annual cash flows. We have recorded liabilities for known indemnifications related to environmental matters. These liabilities were not material as of December 31, 2023 or December 31, 2022.

First American indemnification – Pursuant to the First American acquisition agreement, we are entitled to limited indemnification for certain expenses and losses, if any, that may be incurred after the consummation of the transaction that arise out of certain matters, including a Federal Trade Commission ("FTC") investigation initiated in December 2019 seeking information to determine whether certain subsidiaries of First American may have engaged in conduct prohibited by the Federal Trade Commission Act, the Fair Credit Reporting Act or the Duties of Furnishers of Information. As fully set forth in the merger agreement, our rights to indemnification for any such expenses and losses are limited to the amount of an indemnity holdback, which will be our sole recourse for any such losses.

The First American subsidiaries entered into a Stipulated Order for Permanent Injunction, Monetary Judgment, and Other Relief (the "Order") with the FTC that was approved on July 29, 2022. The parties subsequently entered into an amended Order. Pursuant to the Order, among other things, the First American defendants were required to pay \$4,900 to the FTC within 7 days of the entry of the Order. The First American defendants also agreed to certain injunctive relief. The payment of the above-referenced amount was made in March 2023, and we were reimbursed for post-closing expenses that we incurred in connection with this matter. These payments did not have a material impact on our consolidated financial statements.

Self-insurance – We are self-insured for certain costs, primarily workers' compensation claims and medical and dental benefits for active employees and those employees on long-term disability. The liabilities associated with these items represent our best estimate of the ultimate obligations for reported claims plus those incurred, but not reported, and totaled \$9,024 as of December 31, 2023 and \$9,661 as of December 31, 2022. These accruals are included in accrued liabilities and other non-current liabilities on the consolidated balance sheets. Our workers' compensation liability is recorded at present value. The difference between the discounted and undiscounted liability was not material as of December 31, 2023 or December 31, 2022.

Our self-insurance liabilities are estimated, in part, by considering historical claims experience, demographic factors and other actuarial assumptions. The estimated accruals for these liabilities could be significantly affected if future events and claims differ from these assumptions and historical trends.

Litigation – Recorded liabilities for legal matters, as well as related charges recorded in each of the past 3 years, were not material to our financial position, results of operations or liquidity during the periods presented, and we do not believe that any of

the currently identified claims or litigation will materially affect our financial position, results of operations or liquidity upon resolution. However, litigation is subject to inherent uncertainties, and unfavorable rulings could occur. If an unfavorable ruling were to occur, it may cause a material adverse impact on our financial position, results of operations or liquidity for the period in which the ruling occurs or in future periods.

NOTE 16: SHAREHOLDERS' EQUITY

In October 2018, our board of directors authorized the repurchase of up to \$500,000 of our common stock. This authorization has no expiration date, and we have not repurchased any shares under this authorization since March 2020. As of December 31, 2023, \$287,452 remained available for repurchase. During the second quarter of 2021, we issued 294 thousand shares to employees of First American in conjunction with the acquisition (Note 6), and we received cash proceeds of \$13,000.

NOTE 17: BUSINESS SEGMENT INFORMATION

As of December 31, 2023, we operated 4 reportable business segments, generally organized by product type, as follows:

- **Payments** – This segment includes our merchant in-store, online and mobile payment solutions; treasury management solutions, including remittance and lockbox processing, remote deposit capture, receivables management, payment processing and paperless treasury management; and payroll and disbursement services, including Deluxe Payment Exchange.
- **Data Solutions** – This segment includes data-driven marketing solutions and hosted solutions, including digital engagement, financial institution profitability reporting and business incorporation services. This segment also included web hosting and logo design services through June 2023, when we completed the sale of these businesses (Note 6).
- **Promotional Solutions** – This segment includes business forms, accessories, advertising specialties and promotional apparel.
- **Checks** – This segment includes printed business and personal checks.

During the first quarter of 2024, we realigned our organizational structure to better reflect our portfolio mix and offerings, and we updated our reportable segments to correspond with these changes. We will complete the segment realignment effective for the quarter ending March 31, 2024, and we will provide initial disclosures based on the realigned segments in connection with our financial results for the first quarter of 2024. We did not operate under the new segment structure during 2023, and we continued to allocate resources and assess performance based on our previous reportable segment structure.

Our realigned reportable segments for the quarter ending March 31, 2024 are as follows:

- **Merchant Services** – provides electronic credit and debit card authorization and payment systems and processing services primarily to small and medium-sized retail and service businesses.
- **B2B Payments** – provides treasury management solutions, including remittance and lockbox processing, remote deposit capture, receivables management, payment processing and paperless treasury management, and Deluxe Payment Exchange.
- **Data Solutions** – provides data-driven marketing solutions, including digital engagement, financial institution profitability reporting and account switching tools, and business incorporation services.
- **Print** – provides printed personal and business checks, printed business forms, business accessories and promotional products.

The accounting policies of the segments are the same as those described in Note 1. We allocate corporate costs for our shared services functions to our business segments when the costs are directly attributable to a segment. This includes certain sales and marketing, human resources, supply chain, real estate, finance, information technology and legal costs. Costs that are not directly attributable to a business segment are reported as Corporate operations and consist primarily of marketing, accounting, information technology, facilities, executive management and legal, tax and treasury costs that support the corporate function. Corporate operations also includes other income. All of our segments operate primarily in the U.S., with some operations in Canada. Until the businesses were sold in June 2023, Data Solutions also had operations in portions of Europe and partners in Central and South America, and through May 2022, Data Solutions had operations in Australia. No single customer accounted for more than 10% of consolidated revenue during the past 3 years.

Our chief operating decision maker (i.e., our Chief Executive Officer) reviews EBITDA on an adjusted basis for each segment when deciding how to allocate resources and to assess segment operating performance. Adjusted EBITDA for each segment excludes depreciation and amortization expense, interest expense, net income attributable to non-controlling interest, income tax expense and certain other amounts, which may include, from time to time, asset impairment charges, restructuring and integration expense, share-based compensation expense, acquisition transaction costs, certain legal-related expense, and gains or losses on sales of businesses and long-lived assets. Our Chief Executive Officer does not review segment asset information when making investment or operating decisions regarding our reportable business segments.

Our segment information for the years ended December 31 was as follows:

<i>(in thousands)</i>	2023	2022	2021
Payments:			
Revenue	\$ 690,704	\$ 678,580	\$ 510,359
Adjusted EBITDA	152,798	144,605	105,576
Data Solutions:			
Revenue	238,817	267,525	262,310
Adjusted EBITDA	55,700	68,214	70,172
Promotional Solutions:			
Revenue	541,650	562,917	546,473
Adjusted EBITDA	80,751	79,549	85,384
Checks:			
Revenue	721,089	728,988	703,055
Adjusted EBITDA	320,333	320,498	324,224
Total segments:			
Revenue	\$ 2,192,260	\$ 2,238,010	\$ 2,022,197
Adjusted EBITDA	609,582	612,866	585,356

The following table presents a reconciliation of total segment adjusted EBITDA to consolidated income before income taxes:

<i>(in thousands)</i>	2023	2022	2021
Total segment adjusted EBITDA	\$ 609,582	\$ 612,866	\$ 585,356
Corporate operations	(192,447)	(194,736)	(177,591)
Depreciation and amortization	(169,703)	(172,552)	(148,767)
Interest expense	(125,643)	(94,454)	(55,554)
Net income attributable to non-controlling interest	107	135	139
Restructuring and integration expense	(90,475)	(63,136)	(58,947)
Share-based compensation expense	(20,525)	(23,676)	(29,477)
Acquisition transaction costs	—	(130)	(18,913)
Certain legal-related (expense) benefit	(2,195)	730	(2,443)
Loss on sale of investment securities	(1,323)	—	—
Gain on sale of businesses and long-lived assets	32,421	19,331	—
Income before income taxes	<u>\$ 39,799</u>	<u>\$ 84,378</u>	<u>\$ 93,803</u>

The following tables present revenue disaggregated by our product and service offerings:

	Year Ended December 31, 2023				
<i>(in thousands)</i>	Payments	Data Solutions	Promotional Solutions	Checks	Consolidated
Checks	\$ —	\$ —	\$ —	\$ 721,089	\$ 721,089
Merchant services and other payment solutions	450,384	—	—	—	450,384
Marketing and promotional solutions	—	—	278,200	—	278,200
Forms and other products	—	—	263,450	—	263,450
Treasury management solutions	240,320	—	—	—	240,320
Data-driven marketing solutions	—	192,656	—	—	192,656
Web and hosted solutions	—	46,161	—	—	46,161
Total revenue	\$ 690,704	\$ 238,817	\$ 541,650	\$ 721,089	\$ 2,192,260

	Year Ended December 31, 2022				
<i>(in thousands)</i>	Payments	Data Solutions	Promotional Solutions	Checks	Consolidated
Checks	\$ —	\$ —	\$ —	\$ 728,988	\$ 728,988
Merchant services and other payment solutions	437,395	—	—	—	437,395
Marketing and promotional solutions	—	—	272,997	—	272,997
Forms and other products	—	—	289,920	—	289,920
Treasury management solutions	241,185	—	—	—	241,185
Data-driven marketing solutions	—	177,598	—	—	177,598
Web and hosted solutions	—	89,927	—	—	89,927
Total revenue	\$ 678,580	\$ 267,525	\$ 562,917	\$ 728,988	\$ 2,238,010

	Year Ended December 31, 2021				
<i>(in thousands)</i>	Payments	Data Solutions	Promotional Solutions	Checks	Consolidated
Checks	\$ —	\$ —	\$ —	\$ 703,055	\$ 703,055
Merchant services and other payment solutions	276,118	—	—	—	276,118
Marketing and promotional solutions	—	—	249,480	—	249,480
Forms and other products	—	—	296,993	—	296,993
Treasury management solutions	234,241	—	—	—	234,241
Data-driven marketing solutions	—	150,772	—	—	150,772
Web and hosted solutions	—	111,538	—	—	111,538
Total revenue	\$ 510,359	\$ 262,310	\$ 546,473	\$ 703,055	\$ 2,022,197

The following table presents revenue disaggregated by geography, based on where items are shipped or services are performed. Substantially all of our long-lived assets reside in the U.S. Long-lived assets of our foreign subsidiaries are located primarily in Canada and are not material to our consolidated financial position.

<i>(in thousands)</i>	Payments	Data Solutions	Promotional Solutions	Checks	Consolidated
Year ended December 31, 2023:					
U.S.	\$ 640,769	\$ 233,090	\$ 518,929	\$ 694,864	\$ 2,087,652
Foreign, primarily Canada	49,935	5,727	22,721	26,225	104,608
Total revenue	\$ 690,704	\$ 238,817	\$ 541,650	\$ 721,089	\$ 2,192,260
Year ended December 31, 2022:					
U.S.	\$ 634,945	\$ 248,227	\$ 537,643	\$ 700,170	\$ 2,120,985
Foreign, primarily Canada and Australia	43,635	19,298	25,274	28,818	117,025
Total revenue	\$ 678,580	\$ 267,525	\$ 562,917	\$ 728,988	\$ 2,238,010
Year ended December 31, 2021:					
U.S.	\$ 469,102	\$ 227,091	\$ 522,966	\$ 678,229	\$ 1,897,388
Foreign, primarily Canada and Australia	41,257	35,219	23,507	24,826	124,809
Total revenue	\$ 510,359	\$ 262,310	\$ 546,473	\$ 703,055	\$ 2,022,197

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

None.

ITEM 9A. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures – As of the end of the period covered by this report, December 31, 2023 (the "Evaluation Date"), we carried out an evaluation, under the supervision and with the participation of management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")). Based upon that evaluation, the Chief Executive Officer and the Chief Financial Officer concluded that, as of the Evaluation Date, our disclosure controls and procedures were effective to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in applicable rules and forms, and (ii) accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, to allow timely decisions regarding required disclosure.

Internal Control Over Financial Reporting – There were no changes in our internal control over financial reporting identified in connection with our evaluation during the quarter ended December 31, 2023 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Management's Report on Internal Control over Financial Reporting – Our management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 in the U.S.

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.

Our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2023. In making this assessment, we used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO") in *Internal Control - Integrated Framework* (2013). Based on this assessment, we have concluded that, as of December 31, 2023, our internal control over financial reporting was effective based on those criteria.

The attestation report on our internal control over financial reporting issued by PricewaterhouseCoopers LLP appears in Item 8 of this report.

ITEM 9B. OTHER INFORMATION

During the three months ended December 31, 2023, none of our directors or officers (as defined in Rule 16a-1(f) of the Securities Exchange Act of 1934, as amended) adopted or terminated a Rule 10b5-1 trading arrangement or a non-Rule 10b5-1 trading arrangement (as such terms are defined in Item 408 of Regulation S-K of the Securities Act of 1933).

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

Except where otherwise noted, the information required by Items 10 through 14 is incorporated by reference from our definitive proxy statement, to be filed with the Securities and Exchange Commission within 120 days of our fiscal year-end, with the exception of the executive officers section of Item 10, which is included in Part I, Item 1 of this report.

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

See Part I, Item 1 of this report "Information About Our Executive Officers." The sections of the proxy statement entitled "Item 1: Election of Directors," "Board Structure and Governance-Director Selection Process," "Board Structure and Governance-Audit and Finance Committee Financial Expertise; Complaint-Handling Procedures," "Board Structure and Governance-Committee Membership and Responsibilities-Audit and Finance Committee," and "Board Structure and Governance-Code of Ethics" are incorporated by reference into this report.

The full text of our Code of Ethics is posted on our investor relations website, www.investors.deluxe.com. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of the Code of Ethics that applies to our principal executive officer, principal financial officer, principal accounting officer or controller or persons performing similar functions by posting such information on our website at the address and location specified above.

ITEM 11. EXECUTIVE COMPENSATION

The sections of the proxy statement entitled "Executive Compensation Discussion and Analysis" and "Board Structure and Governance-Non-Employee Director Compensation" are incorporated by reference into this report.

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

The section of the proxy statement entitled "Stock Ownership and Reporting-Security Ownership of Certain Beneficial Owners and Management" is incorporated by reference into this report.

The following table provides information concerning all of our equity compensation plans as of December 31, 2023:

Equity Compensation Plan Information

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column)
Equity compensation plans approved by shareholders	3,073,720 (1)	\$ 44.91 (1)	5,163,371 (2)
Equity compensation plans not approved by shareholders	51,348 (3)	—	—
Total	<u>3,125,068</u>	<u>\$ 44.91</u>	<u>5,163,371</u>

⁽¹⁾ Includes awards granted under our 2022 Stock Incentive Plan and our previous stock incentive plans. The number of securities to be issued upon exercise of outstanding options, warrants and rights includes outstanding stock options of 1,380,458, restricted stock unit awards of 1,185,961 and 507,301 shares subject to outstanding performance share unit awards. The number of performance share units reflects the target amount for awards outstanding as of December 31, 2023. The actual number of shares issued under our performance share unit awards will range between 0% and 200% of the target amount based on our performance relative to the applicable performance goals as determined by our Compensation and Talent Committee following the end of the performance period. The performance share unit and restricted stock unit awards are not included in the weighted-average exercise price of outstanding options, warrants and rights because they require no consideration upon vesting.

⁽²⁾ Includes 2,743,503 shares reserved for issuance under our Amended and Restated 2000 Employee Stock Purchase Plan and 2,419,868 shares available for issuance under our 2022 Stock Incentive Plan.

⁽³⁾ Includes awards granted pursuant to an inducement award of shares registered in the Registration Statement on Form S-8 filed August 5, 2022. The number of securities to be issued upon vesting includes outstanding restricted stock unit awards of 34,694 and 16,654 shares subject to outstanding performance share unit awards. The number of performance share units reflects the target amount for awards outstanding as of December 31, 2023. The actual number of shares issued under our performance share unit awards will range between 0% and 200% of the target amount based on our performance relative to the applicable performance goals as determined by our Compensation and Talent Committee following the end of the performance period. The performance share unit and restricted stock unit awards are not included in the weighted-average exercise price of outstanding options, warrants and rights because they require no consideration upon vesting.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The sections of the proxy statement entitled “Board Structure and Governance-Board Oversight and Director Independence” and “Board Structure and Governance-Policies and Procedures with Respect to Related Person Transactions” are incorporated by reference into this report.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The sections of the proxy statement entitled “Item 3: Ratification of the Appointment of Independent Registered Public Accounting Firm-Fees Paid to Independent Registered Public Accounting Firm” and “Item 3: Ratification of the Appointment of Independent Registered Public Accounting Firm-Policy on Audit and Finance Committee Pre-Approval of Accounting Firm Fees and Services” are incorporated by reference into this report.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

(a) Financial Statements and Schedules

The financial statements are set forth under Item 8 of the Annual Report on Form 10-K. Financial statement schedules have been omitted since they are either not required or are not applicable, or the required information is shown in the consolidated financial statements or notes.

(b) Exhibit Listing

The following exhibits are filed as part of or are incorporated into this report by reference:

Exhibit Number	Description
2.1	<u>Agreement and Plan of Merger, dated as of April 21, 2021, by and among us, Fox Acquirer Sub, Inc., FAPS Holdings, Inc. and Applepoint FAPS Holdings LP (solely in its capacity as the stockholder representative), (incorporated by reference to Exhibit 2.1 to the Current Report on Form 8-K filed with the Commission on April 22, 2021)</u>
2.2	<u>Stock and Asset Purchase Agreement, dated January 31, 2023, by and between us and HostPapa, Inc. (incorporated by reference to Exhibit 2.1 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2023)</u>
2.3	<u>First Amendment to Stock and Asset Purchase Agreement, dated March 6, 2023, by and between us and HostPapa, Inc. (incorporated by reference to Exhibit 2.2 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2023)</u>
2.4	<u>Second Amendment to Stock and Asset Purchase Agreement, dated May 31, 2023, by and between us and HostPapa, Inc. (incorporated by reference to Exhibit 2.1 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2023)</u>
2.5	<u>Third Amendment to Stock and Asset Purchase Agreement, dated June 15, 2023, by and between us and HostPapa, Inc. (incorporated by reference to Exhibit 2.2 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2023)</u>
2.6	<u>Fourth Amendment to Stock and Asset Purchase Agreement, dated June 26, 2023, by and between us and HostPapa, Inc. (incorporate by reference to Exhibit 2.3 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2023)</u>
3.1	<u>Amended and Restated Articles of Incorporation (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q for the quarter ended September 30, 2010)</u>
3.2	<u>Bylaws, as amended on February 16, 2023 (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed with the Commission on February 21, 2023)</u>
4.1	<u>Description of Deluxe Corporation Common Stock Registered Under Section 12 of the Exchange Act of 1934 (incorporated by reference to Exhibit 4.2 to the Annual Report on Form 10-K for the year ended December 31, 2019)</u>
4.2	<u>Indenture, dated as of June 1, 2021, by and among us, certain of our subsidiaries and U.S. Bank National Association (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed with the Commission on June 1, 2021)</u>
4.3	<u>Supplemental Indenture, dated as of June 1, 2021, by and among us, FAPS Holdings, Inc., all of the domestic subsidiaries of FAPS Holdings, Inc. and U.S. Bank National Association (incorporated by reference to Exhibit 4.2 to the Current Report on Form 8-K filed with the Commission on June 1, 2021)</u>
10.1	<u>Deluxe Corporation 2022 Stock Incentive Plan (incorporated by reference to Annex B of the definitive proxy statement filed with the Commission on March 14, 2022)*</u>
10.2	<u>Amendment No. 1 to the Deluxe Corporation 2022 Stock Incentive Plan (incorporated by reference to Annex B of the definitive proxy statement filed with the Commission on March 13, 2023)*</u>
10.3	<u>Deluxe Corporation 2020 Long-Term Incentive Plan (incorporated by reference to Annex B of the definitive proxy statement filed with the Commission on March 20, 2020)*</u>
10.4	<u>Deluxe Corporation 2017 Long-Term Incentive Plan (incorporated by reference to Appendix B of the definitive proxy statement filed with the Commission on March 17, 2017)*</u>

Exhibit Number	Description
10.5	Amended and Restated 2000 Employee Stock Purchase Plan (incorporated by reference to Exhibit 10.3 to the Annual Report on Form 10-K for the year ended December 31, 2020)*
10.6	Deluxe Corporation Deferred Compensation Plan (2020 Restatement) (incorporated by reference to Exhibit 10.4 to the Annual Report on Form 10-K for the year ended December 31, 2020)*
10.7	Deluxe Corporation Deferred Compensation Plan Trust (incorporated by reference to Exhibit 4.3 to the Form S-8 filed with the Commission on January 7, 2002)*
10.8	Deluxe Corporation Executive Deferred Compensation Plan for Employee Retention and Other Eligible Arrangements (incorporated by reference to Exhibit 10.24 to the Quarterly Report on Form 10-Q for the quarter ended June 30, 2000)*
10.9	Deluxe Corporation Severance Plan for Certain Executive Level Employees, effective July 30, 2019 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended September 30, 2019)*
10.10	Employment Agreement, dated October 14, 2018, between us and Barry C. McCarthy and related forms of Restricted Stock Unit Award Agreement and Non-Qualified Stock Option Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Commission on November 6, 2018)*
10.11	First Amendment to Employment Agreement, dated October 14, 2018, between us and Barry C. McCarthy (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Commission on March 26, 2020)*
10.12	Second Amendment to Employment Agreement, dated August 6, 2021, between us and Barry C. McCarthy (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Commission on August 6, 2021)*
10.13	Separation and Release Agreement, dated January 2, 2023, between us and Christopher L. Thomas (incorporated by reference to Exhibit 10.12 to the Annual Report on Form 10-K for the year ended December 31, 2022)*
10.14	Separation and Release Agreement, dated January 24, 2024, between us and Michael Reed*
10.15	Form of U.S. Employee Restricted Stock Unit Award Agreement (version 2/24)*
10.16	Form of U.S. Employee Restricted Stock Unit Award Agreement (version 2/22) (incorporated by reference to Exhibit 10.15 to the Annual Report on Form 10-K for the year ended December 31, 2022)*
10.17	Form of U.S. Employee Restricted Stock Unit Award Agreement (version 3/21) (incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2021)*
10.18	Form of U.S. Employee Restricted Stock Unit Award Agreement (version 4/19) (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)*
10.19	Form of U.S. Employee Non-Qualified Stock Option Agreement (version 3/21) (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2021)*
10.20	Form of CEO Non-Qualified Stock Option Agreement (version 4/19) (incorporated by reference to Exhibit 10.6 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)*
10.21	Form of U.S. Employee Non-Qualified Stock Option Agreement (version 4/19) (incorporated by reference to Exhibit 10.7 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2019)*

Exhibit Number	Description
10.22	Form of Non-Qualified Stock Option Agreement (version 12/17) (incorporated by reference to Exhibit 10.19 to the Annual Report on Form 10-K for the year ended December 31, 2017)*
10.23	Form of U.S. Employee Performance Share Unit Award Agreement (version 2/24)*
10.24	Form of U.S. Employee Performance Share Unit Award Agreement (version 2/22) (incorporated by reference to Exhibit 10.22 to the Annual Report on Form 10-K for the year ended December 31, 2022)*
10.25	Form of U.S. Employee Performance Share Unit Award Agreement (version 3/21) (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2021)*
10.26	Description of modification to the Deluxe Corporation Non-Employee Director Retirement and Deferred Compensation Plan (incorporated by reference to Exhibit 10.23 to the Annual Report on Form 10-K for the year ended December 31, 2017)*
10.27	First Amendment to the Deluxe Corporation Non-Employee Director Stock and Deferral Plan (incorporated by reference to Exhibit 10.3 to the Annual Report on Form 10-K for the year ended December 31, 2008)*
10.28	Form of Non-Employee Director Restricted Stock Unit Award Agreement (version 4/22) (incorporated by reference to Exhibit 10.26 to the Annual Report on Form 10-K for the year ended December 31, 2022)*
10.29	Restricted Stock Unit Agreement (Two-Year Ratable), dated May 13, 2022, by and between us and Yogaraj Jayaprakasam (incorporated by reference to Exhibit 10.1 to the Registration Statement on Form S-8 filed with the Commission on August 5, 2022)*
10.30	Restricted Stock Unit Agreement (Four-Year Ratable), dated May 13, 2022, by and between us and Yogaraj Jayaprakasam (incorporated by reference to Exhibit 10.2 to the Registration Statement on Form S-8 filed with the Commission on August 5, 2022)*
10.31	Performance Share Unit Agreement (Total Revenue), dated May 13, 2022, by and between us and Yogaraj Jayaprakasam (incorporated by reference to Exhibit 10.3 to the Registration Statement on Form S-8 filed with the Commission on August 5, 2022)*
10.32	Performance Share Unit Agreement (TSR), dated May 13, 2022, by and between us and Yogaraj Jayaprakasam (incorporated by reference to Exhibit 10.4 to the Registration Statement on Form S-8 filed with the Commission on August 5, 2022)*
10.33	Credit Agreement, dated as of June 1, 2021, by and among us, as borrower, the several lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed with the Commission on June 1, 2021)
10.34	Amendment No. 1, dated as of March 10, 2023, to the Credit Agreement dated June 1, 2021, by and among us, as borrower, the several lenders from time to time party thereto, and JPMorgan Chase Bank, N.A., as Administrative Agent (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q for the quarter ended March 31, 2023)
10.35	Stipulated Order for Permanent Injunction, Monetary Judgment and Other Relief, as amended (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q for the quarter ended September 30, 2022)
21.1	Subsidiaries of the Registrant
23.1	Consent of Independent Registered Public Accounting Firm

Exhibit Number	Description
31.1	CEO Certification of Periodic Report pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
31.2	CFO Certification of Periodic Report pursuant to Section 302 of the Sarbanes-Oxley Act of 2002
32.1	CEO and CFO Certification of Periodic Report pursuant to Section 906 of the Sarbanes-Oxley Act of 2002
97	Deluxe Corporation Incentive Compensation Recovery Policy
101.INS	XBRL Instance Document – the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover page interactive data file (formatted as Inline XBRL and contained in Exhibit 101)

* Denotes compensatory plan or management contract

Note to recipients of Form 10-K: Copies of exhibits will be furnished upon written request and payment of reasonable expenses in furnishing such copies.

ITEM 16. FORM 10-K SUMMARY

We have elected not to include an optional Form 10-K Summary.

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.

Date: February 22, 2024

DELUXE CORPORATION

/s/ Barry C. McCarthy

Barry C. McCarthy, 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 indicated on February 22, 2024.

Signature	Title
<u>/s/ Barry C. McCarthy</u> Barry C. McCarthy	President and Chief Executive Officer (Principal Executive Officer)
<u>/s/ William C. Zint</u> William C. Zint	Senior Vice President, Chief Financial Officer (Principal Financial Officer)
<u>/s/ Chad P. Kurth</u> Chad P. Kurth	Vice President, Chief Accounting Officer (Principal Accounting Officer)
<u>/s/ William C. Cobb</u> William C. Cobb	Director
<u>/s/ Paul R. Garcia</u> Paul R. Garcia	Director
<u>/s/ Cheryl Mayberry McKissack</u> Cheryl Mayberry McKissack	Director
<u>/s/ Don J. McGrath</u> Don J. McGrath	Director
<u>/s/ Thomas J. Reddin</u> Thomas J. Reddin	Director
<u>/s/ Martyn R. Redgrave</u> Martyn R. Redgrave	Director
<u>/s/ John L. Stauch</u> John L. Stauch	Director
<u>/s/ Telisa L. Yancy</u> Telisa L. Yancy	Director

SEPARATION AND RELEASE AGREEMENT

This SEPARATION AND RELEASE AGREEMENT (“Separation Agreement”) is made and entered into by and between Michael Reed (“Executive”) and Deluxe Corporation (“Deluxe”).

WHEREAS, Executive has been employed by Deluxe, most recently as Deluxe’s SVP, President, B2B (“President B2B”);

WHEREAS, on the terms set forth herein, by mutual agreement of the parties, Executive will cease to be Deluxe’s President B2B;

WHEREAS, Deluxe and Executive would like Executive to provide services to Deluxe for a period of time following the end of Executive’s employment as President B2B;

WHEREAS, Executive and Deluxe wish to fully and finally settle all issues, differences, and claims, whether potential or actual, between Executive and Deluxe, including, but not limited to, any claims that might arise out of Executive’s employment with Deluxe or Executive’s separation from Deluxe;

WHEREAS, based on the foregoing, Deluxe and Executive desire to enter into this Separation Agreement to effect Executive’s separation from Deluxe on the terms and conditions set forth herein.

NOW, THEREFORE, the parties agree as follows:

1. Continued Employment and Separation Date. Provided Executive signs and does not revoke or rescind this Separation Agreement, as described in Section 6, the following will occur:

- a. Transition Period. Executive’s employment as President B2B will end on January 10, 2024 (the “Transition Date”). On the Transition Date, Executive will move to a position providing transition services to Deluxe. From the Transition Date through Executive’s last day of employment (the “Transition Period”), Executive will be employed by Deluxe in the capacity of Special Advisor to Deluxe’s CEO. Executive’s employment as Special Advisor to Deluxe’s CEO will continue through April 30, 2024, subject to extension of that date by mutual agreement. During the Transition Period, Executive will not enter into any agreements on behalf of Deluxe. Until the Transition Date and during the Transition Period, Executive’s compensation and benefits will continue as in effect as of the date Deluxe executes this Agreement. During the Transition Period, Executive will perform such duties as are reasonably assigned by Deluxe’s CEO.
 - b. Separation Date. Except as provided in this Separation Agreement, all benefits and privileges of Executive’s employment with Deluxe will end as of close of business of the last day of the Transition Period (the “Separation Date”).
-

2. Consideration by Executive. As consideration for Deluxe's promises and obligations under this Separation Agreement, Executive agrees to the following:

- a. First Release of Claims. On or within 45 days after January 10, 2024, Executive will sign this Separation Agreement containing the release of claims in Section 4.
- b. Second Release of Claims. On or within 45 days after the Separation Date, as defined in Section 1.b. above, Executive will sign a second release in the form attached to this Separation Agreement as **Exhibit A** (the "Second Release").

3. Consideration by Deluxe. In addition to the opportunity to provide transition services as described in Section 1, in accordance with the Deluxe Corporation Severance Plan for Certain Executive Level Employees dated July 30, 2019 (the "Executive Severance Plan") and as consideration for Executive's promises and obligations under this Separation Agreement, Deluxe will provide Executive with the following benefits to which Executive is not otherwise entitled, provided Executive signs and does not revoke or rescind this Separation Agreement, as described in Section 6, and signs and does not revoke or rescind the Second Release as described in the Second Release.

a. Severance. Deluxe will pay Executive an amount equal to twelve (12) months of his base salary as of the Separation Date, less applicable deductions and withholdings, to be paid in accordance with Deluxe's regular payroll schedule, beginning on the first regular payday that occurs after the Separation Date and is at least ten (10) days following the end of the 15-day rescission period of the Second Release.

b. Prorated Fiscal 2024 Cash Bonus. Deluxe will pay Executive an amount equal to his target annual bonus for 2024, prorated as of the Separation Date. Any such bonus will be calculated in the same manner that Deluxe calculates similar bonuses, and any such bonus will be paid to Executive in 2025 when Deluxe otherwise pays such bonuses to similarly situated employees.

c. One-Time Payment. Deluxe will pay Executive a one-time lump sum payment of Fifty Thousand Dollars (\$50,000), to be paid within thirty (30) days after the end of the 15-day rescission period of the Second Release.

4. Release of Claims. As an inducement to Deluxe to enter into this Separation Agreement and in exchange for the consideration provided for in this Separation Agreement, Executive hereby settles any and all claims that he has or may have against Deluxe and its predecessors, successors, assigns, parents, affiliates, subsidiaries and related companies, and its and their respective officers, employees, agents, assigns, insurers, representatives, counsel, administrators, successors, shareholders, directors and/or other representatives (collectively, the "Released Parties") as a result of Deluxe's hiring of Executive, Executive's employment with Deluxe, the cessation of Executive's employment with Deluxe, or any act, occurrence, or omission occurring prior to the date of this Separation Agreement.

For the consideration expressed herein, Executive, on behalf of himself and his heirs, successors, representatives and assigns, hereby releases and discharges the Released Parties from any and all claims, causes of action, liabilities, damages, and right to relief of any kind that Executive has or ever had against the Released Parties, known or unknown, by reason of Executive's employment with Deluxe and any matter or fact giving rise to this Separation Agreement. Executive's release of claims is intended to extend to and includes, among other

things, claims of any kind arising under or based upon the Age Discrimination in Employment Act, as Amended by the Older Worker's Benefits Protection Act; Title VII of the Civil Rights Act of 1964; the Americans with Disabilities Act; the Family and Medical Leave Act; the Employee Retirement Income Security Act; the Fair Credit Reporting Act; the Individual Retirement Income Security Act of 1974; the Equal Pay Act; the Worker Adjustment and Retraining Notification Act; 42 U.S.C. § 1981, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Fair Credit Reporting Act, the Vocational Rehabilitation Act, the Family and Medical Leave Act, the Worker Adjustment and Retraining Notification Act, the Lily Ledbetter Fair Pay Act of 2009, the Americans With Disabilities Act, the Rehabilitation Act of 1973, the Genetic Information Nondiscrimination Act, the Immigration Reform and Control Act of 1986, the Civil Rights Act of 1991, the Occupational Safety and Health Act, the Consumer Credit Protection Act, the American Recovery and Reinvestment Act of 2009, the Families First Coronavirus Response Act, the Uniformed Services Employment and Reemployment Rights Act; Georgia Fair Employment Practices Act of 1978, Ga. Code Ann. §§ 45-19-20 to -46; Ga. Code Ann. §§ 34-5-1 to -7 (equal pay); Georgia Equal Employment for Persons With Disabilities Code, Ga. Code Ann. §§ 34-6A-1 to -6 (physical and mental disabilities); Ga. Code Ann. § 34-1-2 (age discrimination); Ga. Code Ann. § 34-1-3 (jury duty or other mandatory judicial proceeding); Ga. Code Ann. § 21-2-404 (voter leave); the Minnesota Human Rights Act, the Minnesota Equal Pay for Equal Work Law, the Minnesota Fair Labor Standards Act, the Minnesota Labor Relations Act, the Minnesota Occupational Safety and Health Act, the Minnesota Criminal Background Check Act, the Minnesota Lawful Consumable Products Law, the Minnesota Smokers' Rights Law, the Minnesota Parental Leave Act, the Minnesota Adoptive Parent Leave Law, the Minnesota Whistleblower Act, the Minnesota Drug and Alcohol Testing in the Workplace Act, the Minnesota Workers' Compensation Law (excluding claims for benefits), the Minnesota Consumer Reports Law, the Minnesota Victim of Violent Crime Leave Law, the Minnesota Domestic Abuse Leave Law, the Minnesota Bone Marrow Donation Leave Law, the Minnesota Military and Service Leave Law, the Minnesota Minimum Wage Law, the Minnesota Drug and Alcohol Testing in the Workplace Act, Minnesota Statutes Chapter 181, Minn. Stat. § 176.82, the Minnesota Constitution, and any other federal, state, or local law, rule, or regulation prohibiting employment discrimination or otherwise relating to employment; and any claims based upon any other theory, whether legal or equitable, arising from or related to any matter or fact arising out the events giving rise to this Separation Agreement.

Executive also agrees and understands that he is giving up any and all other claims, whether grounded in contract or tort theories, including, but not limited to: wrongful discharge; breach of contract (including, without limitation, any claims for unpaid compensation); tortious interference with contractual relations; promissory estoppel; detrimental reliance; breach of the implied covenant of good faith and fair dealing; breach of express or implied promise; breach of manuals or other policies; breach of fiduciary duty; assault; battery; fraud; false imprisonment; invasion of privacy; intentional or negligent misrepresentation; defamation, including libel, slander, discharge defamation and self-publication defamation; discharge in violation of public policy; whistleblower; intentional or negligent infliction of emotional distress; and claims for punitive damages or attorneys' fees or any other theory, whether legal or equitable.

Nothing in this Separation Agreement purports to release or waive claims that may not be released or waived as a matter of law, claims based on events, occurrences, or omissions that occur after the date of the Separation Agreement, claims for enforcement of this Separation Agreement, or claims related to any already vested benefits under the terms of any of Deluxe's benefit plans. Similarly, nothing in this Separation Agreement prevents Executive from challenging the validity of this agreement or from filing any non-legally waivable claim with the Equal Employment Opportunity Commission ("EEOC"), National Labor Relations Board ("NLRB"), the Occupational Safety and Health Administration ("OSHA") or comparable state or local agency or participating in any investigation or proceeding conducted by the EEOC, NLRB,

OSHA or comparable state or local agency; however, Executive agrees and understands that the Separation Agreement waives all claims and rights to monetary or other recovery for any legal claims to the fullest extent permitted by law.

This Release of Claims does not prohibit Executive from reporting possible violations of federal law or regulation to any governmental agency or entity, including, but not limited to, the Department of Justice, the Securities and Exchange Commission (“SEC”), Congress, and any agency Inspector General, or making other disclosures that are protected under the whistleblower provisions of federal law or regulation. Nothing in this Separation Agreement requires Executive to seek prior authorization of Deluxe to make any such reports or disclosures and Executive does not need and is not required to notify Deluxe that he has made any such reports or disclosures. This Separation Agreement is not intended to and does not restrict Executive from seeking or obtaining an SEC whistleblower award.

Executive understands that under the U.S. Defend Trade Secrets Act of 2016, he will not be held criminally or civilly liable under any U.S. federal or state trade secret law for the disclosure of a trade secret that is made in confidence to government officials, either directly or indirectly, or to an attorney, in each case solely for the purpose of reporting or investigating a suspected violation of law, or in a complaint or other document filed in a lawsuit or other proceeding, provided such filing is made under seal. Executive hereby represents that he is not aware of any violation of law which could support such a disclosure.

5. Consideration Period and Advice to Consult with Counsel. Executive is hereby informed that the terms of this Separation Agreement shall be open for acceptance and execution by Executive for a period of forty-five (45) days from Executive’s date of receipt, during which time Executive is advised and encouraged to consult with an attorney of his choice and consider whether to accept this Separation Agreement. Changes to this Separation Agreement, whether material or immaterial, will not restart the running of this forty-five (45) day acceptance period. To receive the consideration provided for in this Separation Agreement, Executive must return a signed and dated original copy of this Separation Agreement to: Jeffrey L. Cotter, Chief Administrative Officer, Senior Vice President and General Counsel, Deluxe Corporation, 801 Marquette Avenue South, Minneapolis, MN 55402; or to jeff.cotter@deluxe.com.

6. Right to Revoke and Rescind. Executive is hereby informed of his right to revoke this Separation Agreement as far as it extends to potential claims under the Age Discrimination in Employment Act (“ADEA”), 29 U.S.C. § 621 *et seq.*, by written notice to Deluxe within seven (7) calendar days following Executive’s execution of this Separation Agreement. Executive is also informed of his right to rescind his release of claims as far as it extends to potential claims under the Minnesota Human Rights Act (“MHRA”), by written notice within fifteen (15) calendar days following Executive’s execution of this Separation Agreement. Any such revocation or rescission must be made in writing and delivered by hand or by certified mail, return receipt requested, postmarked on or before the last day of the applicable revocation or rescission period to the representative identified in Section 5.

If Executive exercises his right to revoke or rescind his release of claims under the MHRA or ADEA, Deluxe may, at its option, either nullify this Separation Agreement in its entirety, or keep it in effect in all respects other than as to that portion of the release of claims that Executive has revoked or rescinded. Executive agrees and understands that if Deluxe chooses to nullify the Separation Agreement in its entirety, Deluxe will have no obligations under this Separation Agreement or the Executive Severance Plan.

7. Continuation of Benefits. Beginning on the Separation Date, provided Executive qualifies for COBRA continuation coverage, Executive may elect to continue medical and dental insurance benefits under COBRA at Executive’s own expense by paying the premium for such

coverage. If Executive does not elect or is not eligible for COBRA continuation coverage, Executive's group health plan coverage will cease as of the Separation Date. Except as provided in this Separation Agreement, Executive will cease to be and will cease to be treated as an employee of Deluxe for all purposes under all employee retirement and welfare benefit plans and all other plans, programs, policies, and arrangements maintained for employees of Deluxe as of the Separation Date.

8. Unvested Equity or Retention Awards. Executive's rights with respect to any unvested equity or cash retention awards shall be governed by the terms of the corresponding equity and cash retention agreements. A schedule of Executive's equity interest is set forth in the spreadsheet, of even date herewith, separately delivered to Executive.

9. Continuing Restrictions and Obligations. Executive acknowledges and agrees that the post-employment restrictions contained in the Non-Competition, Non-Solicitation, Confidentiality and Intellectual Property Agreement entered into by Executive and Deluxe dated November 6, 2019 (the "Confidentiality Agreement") are reasonable and shall remain in full force and effect according to their terms. Notwithstanding the Post-Employment Restrictions (as defined below), Deluxe agrees to reasonably consider requests from Executive to waive such restrictions in connection with employment Executive obtains following the Separation Date.

10. Claims Warranties. Executive represents and warrants that he is not aware of any facts that would establish, tend to establish or in any way support an allegation that any of the Released Parties has engaged in conduct that Executive believes could violate (1) any provision of federal law relating to fraud, including, but not limited to, the Sarbanes-Oxley Act, the Dodd-Frank Wall Street Reform and Consumer Protection Act and/or any state or local counterpart; (2) any rule or regulation of the SEC; (3) the federal False Claims Act and/or any state or local or municipal qui tam counterpart (which prohibit the presentation by Deluxe or any affiliate of false claims and statements or the creation of false records or statements in order to obtain payment of federal, state, county or municipal funds, or to avoid refunds of such government funds); and (4) any other federal, state or local law.

11. Representations and Warranties Regarding the FMLA and FLSA. Executive represents and warrants that he is not aware of any facts or circumstances that might justify a claim against the Released Parties for any violation of the Family and Medical Leave Act ("FMLA") or the Fair Labor Standards Act ("FLSA") or comparable state statutes. Executive further represents and warrants that he has received any and all wages and/or commissions for work performed and any and all FMLA leave to which Executive may have been entitled.

12. Non-Disparagement. Except in the context of a proceeding with the EEOC, NLRB, SEC, or other comparable state or local government agency; in compelled sworn testimony; or as otherwise may be required by law, Executive agrees that he will not disparage or defame the Released Parties or any of the Released Parties' current or former employees, directors, officers, agents, or contractors, or Deluxe's management or services. Deluxe likewise agrees that it will not disparage Executive.

13. Cooperation. Executive agrees to cooperate with Deluxe with respect to any claims or lawsuits brought or threatened to be brought against the Released Parties, which relate to or involve Executive's employment with Deluxe or any transactions, decisions, or actions of Deluxe in which Executive was involved or had knowledge of while a Deluxe employee (the "Covered Subjects"). As part of Executive's agreement to cooperate, Executive agrees to be available upon reasonable notice at mutually-agreeable times to discuss with Deluxe and its counsel issues related to litigation or potential litigation exposure with respect to the Covered Subjects. Executive also agrees to appear without subpoena for deposition or testimony at the request of Deluxe in connection with claims or lawsuits relating to Covered Subjects. Deluxe

will reimburse Executive for all reasonable and customary expenses he incurs while cooperating with Deluxe pursuant to this Section 13, in accordance with Deluxe's regular expense reimbursement practices and Deluxe will provide reasonable compensation to Executive for his time required in providing such cooperation, the same to be agreed upon by the parties.

14. Return of Information and Property. Executive affirms that he will return all originals and all copies of Deluxe's records, correspondence and documents, and all other property and assets of Deluxe, created or obtained by Executive as a result of or in the course of or in connection with his employment with Deluxe which are in his possession or control, whether confidential or not, including, but not limited to, any notes, diaries, computer files or other documents containing information regarding Executive's experiences or knowledge of Deluxe business or employee matters, prior to the Separation Date.

15. Passwords and Password-Protected Documents. Executive agrees that, prior to the Separation Date, he will deliver to Deluxe all passwords in use by Executive at the time of his termination, a list of any documents that Executive has created or of which Executive is otherwise aware are password-protected, and the password(s) necessary to access such password-protected documents.

16. Non-Assignability. Executive understands and agrees that this Separation Agreement is personal to him. The duties, rights, and obligations set forth herein may not be delegated or assigned by Executive to any other person without prior written consent of Deluxe. Deluxe's rights and obligations hereunder may be assigned to any successor following a sale of Deluxe or of Deluxe's assets, or any other transaction involving a change in control.

17. Governing Law; Severability. This Separation Agreement shall be governed by the laws of the State of Minnesota without regard to the choice of law provisions of any jurisdiction. If any part of this Separation Agreement is construed to be invalid and/or unenforceable, such part shall be modified to achieve the objective of the parties to the fullest extent permitted and the balance of this Separation Agreement shall remain in full force and effect. The language of all parts of this Separation Agreement shall be construed as a whole, according to its fair meaning, and not strictly for or against any of the parties.

18. Choice of Venue. The parties agree that any and all legal actions or proceedings brought to interpret or enforce this Separation Agreement or in any other way arising out of or in relation to this Separation Agreement shall be brought exclusively in the state or federal courts of the State of Minnesota and hereby consent to the jurisdiction of such courts for any such action and further waive any objection to the convenience of the forum or venue.

19. Entire Agreement. This Separation Agreement, the documents referenced herein or attached hereto, and the award and similar agreements entered into between Executive and Deluxe with respect to various equity, bonus, retention and similar compensation (collectively, "Incentive Award Agreements") contain the entire agreement between Executive and Deluxe with respect to Executive's employment and separation from employment and there are no promises or understandings outside of this Separation Agreement, the documents referenced herein or attached hereto, and the Incentive Award Agreements, with respect to Executive's employment or separation from employment with Deluxe. The Incentive Award Agreements will function in accordance with their respective terms, notwithstanding the entry by the parties into this Separation Agreement, the same being set forth in the spreadsheet, of even date herewith, separately delivered to Executive. Any modification of or addition to this Separation Agreement must be in a writing signed by Executive and an appropriate representative of Deluxe.

20. Waiver. The waiver by either party of a breach by the other party of any provision of this Separation Agreement shall not operate or be construed as a waiver of any subsequent breach.

21. Section 409A Compliance. The right to a series of payments under this Separation Agreement will be treated as a right to a series of separate payments. Each payment under this Separation Agreement that is made within 2-1/2 months following the end of the year that contains the Separation Date is intended to be exempt from Section 409A of the Internal Revenue Code ("Section 409A") as a short-term deferral within the meaning of the final regulations under Section 409A. Each payment under this Separation Agreement that is made later than 2-1/2 months following the end of the year that contains the end Separation Date is intended to be exempt from Section 409A under the two-times exception of Treasury Reg. § 1.409A-1(b)(9)(iii), up to the limitation on the availability of that exception specified in the regulation. If the timing of any payment subject to Section 409A could occur in one or more tax years depending on Executive's employment-related actions, such as the signing of a release, then such payment will be made as soon as possible in the later tax year.

22. Enforcement. The remedies below are in addition to any other rights and remedies that Deluxe may have at law or in equity.

a. Injunctive Relief and Other Damages. Executive acknowledges and agrees that the post-employment restrictions in the Confidentiality Agreement (the "Post-Employment Restrictions") are reasonable and necessary in order to protect and maintain the legitimate business interests of Deluxe, and that their enforcement would not prevent him from earning a livelihood. Executive recognizes that his breach of Sections 12, 13, 14, or 15 of this Separation Agreement or the Post-Employment Restrictions, would result in irreparable injury to Deluxe, that in the event of their breach, Deluxe's remedy at law for damages will be inadequate, and that Deluxe shall be entitled to seek an injunction to restrain the continuing breach by Executive, Executive's partners, agents, servants, or employees, or any other persons or entities acting for or with Executive as provided by law and/or equity. Deluxe may further be entitled to damages in connection with the enforcement of this Separation Agreement as provided by law and/or equity and including the recovery of any profits and revenues obtained by Executive while engaging in violations of the Post-Employment Restrictions or Sections 12, 13, 14, or 15 of this Separation Agreement. Executive agrees that if he violates the Post-Employment Restrictions or the terms of this Separation Agreement, he will reimburse the Released Parties for any attorneys' fees, costs, or other damages arising from his breach, other than Executive challenging his waiver of claims under the Age Discrimination in Employment Act.

23. Counterparts and Electronic Signatures. This Separation Agreement may be executed in any number of counterparts, each of which when so executed shall be deemed an original, and the counterparts together shall constitute one and the same agreement. A copied, scanned, or faxed signature shall be treated the same as an original.

24. Receipt of Disclosures. Executive agrees and acknowledges that pursuant to the Older Workers Benefit Protection Act, information regarding the group of employees covered by the employment termination program of which Executive's termination is a part, the eligibility factors applicable to the program, the time limits applicable to the program, and the job titles and ages of the individuals selected for the program have been provided to Executive in the document attached hereto as **Exhibit B**.

25. Executive Representation. EXECUTIVE AFFIRMS THAT HE HAS READ THIS SEPARATION AGREEMENT. EXECUTIVE ACKNOWLEDGES THAT HE WAS PROVIDED WITH A REASONABLE AND SUFFICIENT PERIOD OF TIME TO CONSIDER WHETHER TO ACCEPT THIS SEPARATION AGREEMENT PRIOR TO SIGNING IT. EXECUTIVE AGREES THAT THE PROVISIONS OF THIS SEPARATION AGREEMENT ARE UNDERSTANDABLE TO HIM, THAT HE HAS ENTERED INTO THIS SEPARATION AGREEMENT FREELY AND VOLUNTARILY, AND THAT HE WAS ADVISED TO CONSULT WITH AN ATTORNEY PRIOR TO SIGNING THIS SEPARATION AGREEMENT.

IN WITNESS WHEREOF, the parties have executed this Separation Agreement by their signatures below.

Dated: January 23, 2024 /s/ Michael Reed
Michael Reed

Dated: January 24, 2024 Deluxe Corporation
By /s/ Jeffrey L. Cotter
Its CAO, GC

EXHIBIT A

SECOND RELEASE OF CLAIMS

WHEREAS, on January ____, 2024 Michael Reed (“Executive”) and Deluxe Corporation (“Deluxe”) entered into a Separation and Release Agreement to effect the termination of Executive’s employment with Deluxe (the “Separation Agreement”); and

WHEREAS, as consideration for Deluxe’s promises and obligations under the Separation Agreement, Executive agreed to sign a second release of claims on or after his employment termination (the “Second Release”);

NOW, THEREFORE, Executive agrees as follows:

1. Release of Claims. As an inducement to Deluxe to enter into the Separation Agreement, and in exchange for the consideration provided for in the Separation Agreement, Executive hereby settles any and all claims that he has or may have against Deluxe and its predecessors, successors, assigns, parents, affiliates, subsidiaries and related companies, and its and their officers, employees, agents, assigns, insurers, representatives, counsel, administrators, successors, shareholders, directors and/or other representatives (collectively, the “Released Parties”) as a result of Deluxe’s hiring of Executive, Executive’s employment with Deluxe, the cessation of Executive’s employment with Deluxe, or any act, occurrence, or omission occurring prior to the date of this Second Release.

For the consideration expressed in the Separation Agreement, Executive, on behalf of himself and his heirs, successors, representatives and assigns, hereby releases and discharges the Released Parties from any and all claims, causes of action, liabilities, damages, and right to relief of any kind that Executive has or ever had against the Released Parties, known or unknown, by reason of Executive’s employment by Deluxe and any matter or fact giving rise to this Second Release. Executive’s release of claims is intended to extend to and includes, among other things, claims of any kind arising under or based upon the Age Discrimination in Employment Act, as Amended by the Older Worker’s Benefits Protection Act; Title VII of the Civil Rights Act of 1964; the Americans with Disabilities Act; the Family and Medical Leave Act; the Employee Retirement Income Security Act; the Fair Credit Reporting Act; the Individual Retirement Income Security Act of 1974; the Equal Pay Act; the Worker Adjustment and Retraining Notification Act; 42 U.S.C. § 1981, the Sarbanes-Oxley Act, the Dodd–Frank Wall Street Reform and Consumer Protection Act, the Fair Credit Reporting Act, the Vocational Rehabilitation Act, the Family and Medical Leave Act, the Worker Adjustment and Retraining Notification Act, the Lily Ledbetter Fair Pay Act of 2009, the Americans With Disabilities Act, the Rehabilitation Act of 1973, the Genetic Information Nondiscrimination Act, the Immigration Reform and Control Act of 1986, the Civil Rights Act of 1991, the Occupational Safety and Health Act, the Consumer Credit Protection Act, the American Recovery and Reinvestment Act of 2009, the Families First Coronavirus Response Act, the Uniformed Services Employment and Reemployment Rights Act; Georgia Fair Employment Practices Act of 1978, Ga. Code Ann. §§ 45-19-20 to -46; Ga. Code Ann. §§ 34-5-1 to -7 (equal pay); Georgia Equal Employment for Persons With Disabilities Code, Ga. Code Ann. §§ 34-6A-1 to -6 (physical and mental disabilities); Ga. Code Ann. § 34-1-2 (age discrimination); Ga. Code Ann. § 34-1-3 (jury duty or other mandatory judicial proceeding); Ga. Code Ann. § 21-2-404 (voter leave); the Minnesota Human Rights Act, the Minnesota Equal Pay for Equal Work Law, the Minnesota Fair Labor Standards Act, the Minnesota Labor Relations Act, the Minnesota Occupational Safety and Health Act, the Minnesota Criminal Background Check Act, the Minnesota Lawful Consumable Products Law, the Minnesota Smokers’ Rights Law, the Minnesota Parental Leave Act, the Minnesota Adoptive Parent Leave Law, the Minnesota Whistleblower Act, the Minnesota Drug and Alcohol Testing in the Workplace Act, the Minnesota Workers’ Compensation Law

(excluding claims for benefits), the Minnesota Consumer Reports Law, the Minnesota Victim of Violent Crime Leave Law, the Minnesota Domestic Abuse Leave Law, the Minnesota Bone Marrow Donation Leave Law, the Minnesota Military and Service Leave Law, the Minnesota Minimum Wage Law, the Minnesota Drug and Alcohol Testing in the Workplace Act, Minnesota Statutes Chapter 181, Minn. Stat. § 176.82, the Minnesota Constitution, and any other federal, state, or local law, rule, or regulation prohibiting employment discrimination or otherwise relating to employment; and any claims based upon any other theory, whether legal or equitable, arising from or related to any matter or fact arising out of the events giving rise to this Second Release.

Executive also agrees and understands that he is giving up any and all other claims, whether grounded in contract or tort theories, including, but not limited to: wrongful discharge; breach of contract (including, without limitation, any claims for unpaid compensation); tortious interference with contractual relations; promissory estoppel; detrimental reliance; breach of the implied covenant of good faith and fair dealing; breach of express or implied promise; breach of manuals or other policies; breach of fiduciary duty; assault; battery; fraud; false imprisonment; invasion of privacy; intentional or negligent misrepresentation; defamation, including libel, slander, discharge defamation and self-publication defamation; discharge in violation of public policy; whistleblower; intentional or negligent infliction of emotional distress; and claims for punitive damages or attorneys' fees or any other theory, whether legal or equitable.

Additionally, nothing in this Second Release purports to release or waive claims that may not be released or waived as a matter of law; claims based on events, occurrences, or omissions that occur after the date of the Second Release; or claims related to any already vested benefits under the terms of any of Deluxe's benefit plans. Similarly, nothing in this Second Release prevents Executive from challenging the validity of this agreement or from filing any non-legally waivable claim with the Equal Employment Opportunity Commission ("EEOC"), National Labor Relations Board ("NLRB") or comparable state or local agency or participating in any investigation or proceeding conducted by the EEOC, NLRB, or comparable state or local agency; however, Executive agrees and understands that the Second Release waives all claims and rights to monetary or other recovery for any legal claims to the fullest extent permitted by law.

This Second Release does not prohibit Executive from reporting possible violations of federal law or regulation to any governmental agency or entity, including, but not limited to, the Department of Justice, the Securities and Exchange Commission ("SEC"), the Congress, and any agency Inspector General, or making other disclosures that are protected under the whistleblower provisions of federal law or regulation. Nothing in this Second Release requires Executive to seek prior authorization of Deluxe to make any such reports or disclosures and Executive does not need and is not required to notify Deluxe that he has made any such reports or disclosures. This Second Release is not intended to and does not restrict Executive from seeking or obtaining an SEC whistleblower award.

Finally, Executive understands that under the U.S. Defend Trade Secrets Act of 2016, he will not be held criminally or civilly liable under any U.S. federal or state trade secret law for the disclosure of a trade secret that is made in confidence to government officials, either directly or indirectly, or to an attorney, in each case solely for the purpose of reporting or investigating a suspected violation of law, or in a complaint or other document filed in a lawsuit or other proceeding, provided such filing is made under seal. Executive hereby represents that he is not aware of any violation of law as outlined in this Section.

2. Consideration Period and Advice to Consult with Counsel. Executive is hereby informed that he has a period of forty-five (45) days from Executive's date of receipt to sign this Second Release, during which time Executive may consult with an attorney and consider whether to sign Second Release. Changes to this Second Release, whether material or

immaterial, will not restart the running of this forty-five (45) day acceptance period. During this time, Deluxe advises and encourages Executive to consult with an attorney of his choice. To receive the consideration provided for in the Separation Agreement, Executive must return a signed and dated original copy of this Second Release to: Jeffrey L. Cotter, Chief Administrative Officer, General Counsel and Senior Vice President, Deluxe Corporation, 801 Marquette Avenue South, Minneapolis, MN 55402.

3. Right to Revoke and Rescind. Executive is hereby informed of his right to revoke this Second Release as far as it extends to potential claims under the Age Discrimination in Employment Act (“ADEA”), 29 U.S.C. §§ 621 *et seq.*, by written notice to Deluxe within seven (7) calendar days following Executive’s execution of this Second Release. Executive is also informed of his right to rescind his release of claims, insofar as it extends to potential claims under the Minnesota Human Rights Act (“MHRA”), by informing Deluxe of Executive’s intent to do so within fifteen (15) calendar days following his signing of this Second Release. Any such revocation or rescission must be made in writing and delivered by hand or by certified mail, return receipt requested, postmarked on or before the last day of the applicable revocation or rescission period to the representative identified in Section 2.

If Executive exercises his right to revoke or rescind his release of claims under the MHRA or ADEA, Deluxe may, at its option, either nullify the Separation Agreement in its entirety, or keep it in effect in all respects other than as to that portion of the release of claims that Executive has revoked or rescinded. Executive agrees and understands that if Deluxe chooses to nullify the Separation Agreement in its entirety, Deluxe will have no obligations under the Separation Agreement or the Deluxe Corporation Severance Plan for Certain Executive Level Employees dated July 30, 2019.

4. Executive Representation. EXECUTIVE AFFIRMS THAT HE HAS READ THIS SECOND RELEASE. EXECUTIVE ACKNOWLEDGES THAT HE WAS PROVIDED WITH A REASONABLE AND SUFFICIENT PERIOD OF TIME TO CONSIDER WHETHER TO SIGN THIS SECOND RELEASE PRIOR TO SIGNING IT. EXECUTIVE AGREES THAT THE PROVISIONS OF THIS SECOND RELEASE ARE UNDERSTANDABLE TO HIM, THAT HE HAS ENTERED INTO THIS SECOND RELEASE FREELY AND VOLUNTARILY, AND THAT HE HEREBY WAS ADVISED TO CONSULT WITH AN ATTORNEY PRIOR TO SIGNING THIS SECOND RELEASE.

Do not sign before Separation Date.

Dated: _____

Michael Reed

EXHIBIT B

These disclosures are provided to you as part of your Separation and Release Agreement (“Separation Agreement”) in accordance with the Older Workers Benefit Protection Act (“OWBPA”).

Certain members of senior leadership at Deluxe Corporation (“Deluxe”) are being offered severance benefits in connection with the termination of their employment (the “Leadership Changes”). The individuals whose employment was considered for termination are referred to as the “Leadership Changes Decisional Unit.” You are receiving these disclosures because your employment will be ending as part of the Leadership Changes. Your employment separation date is reflected in your Separation Agreement.

All employees in the Leadership Changes Decisional Unit are eligible to receive separation benefits, as described in each eligible employee’s Separation Agreement. To accept the separation benefits described in your individual Separation Agreement, you must sign your Separation Agreement and return it to Jeffrey L. Cotter, Chief Administrative Officer, Senior Vice President and General Counsel, Deluxe Corporation, 801 Marquette Avenue South, Minneapolis, MN 55402 or jeff.cotter@deluxe.com, within forty-five (45) calendar days of receiving the Separation Agreement. Following your signing of the Separation Agreement, you will have seven (7) calendar days to revoke (that is, cancel) the Separation Agreement to the extent it applies to claims under the Age Discrimination in Employment Act, as set forth in greater detail in your Separation Agreement.

The list set forth below shows the job titles and ages of all individuals in the Leadership Changes Decisional Unit and whether they were selected for position elimination.

Please review this information and your individual Separation Agreement carefully. You are advised to consult with an attorney prior to signing your Separation Agreement. If you have any questions, you may contact Jeffrey L. Cotter at jeff.cotter@deluxe.com or (612) 382-2327.

Leadership Changes Decisional Unit

The list set forth below includes the job titles and ages of all individuals in the Leadership Changes Decisional Unit and indicates which were selected for employment termination.

<u>Title</u>	<u>Age</u>	<u>Selected (Yes/No)</u>
Chief Human Resources Officer	55	Yes
SVP, President, B2B	52	Yes
CEO of First American, Managing Director, Deluxe Payments	65	Yes

DELUXE CORPORATION

RESTRICTED STOCK UNIT AWARD AGREEMENT (US Employees)

AWARDED TO	AWARD DATE	TOTAL NUMBER OF RESTRICTED STOCK UNITS

The Award. Deluxe Corporation, a Minnesota corporation (“Deluxe”), hereby grants to you as of the above Award Date the above number of restricted stock units (“Units”) on the terms and conditions contained in this Restricted Stock Unit Award Agreement (including the Addendum attached hereto, the “Agreement”) and Deluxe’s 2022 Stock Incentive Plan (the “Plan”), a copy of each of which has been provided to you. Deluxe hereby confirms the grant to you, as of the Award Date and subject to the terms and conditions in this Agreement and the Plan, of the number of Restricted Stock Units specified above (the “Units”). Each Unit represents the right to receive one share of Deluxe’s common stock par value \$1.00 (“Common Stock”), when the restrictions applicable to each Unit expire or terminate as provided below. Prior to their settlement or forfeiture in accordance with the terms of this Agreement, the Units granted to you will be credited to an account in your name maintained by Deluxe. This account shall be unfunded and maintained for book-keeping purposes only, with the Units simply representing an unfunded and unsecured contingent obligation of Deluxe. Any capitalized term used but not defined in this Agreement shall have the meaning given to the term in the Plan as it currently exists or may hereafter be amended.

Restricted Period and Vesting. The Units are subject to the restrictions contained in this Agreement and the Plan for the Restricted Period (as defined below). As used herein, “Restricted Period,” shall mean, with respect to each of the [] equal segments of [] percent of the Units each, a period commencing on the Award Date and, subject to Section 4, ending with respect to each segment on its respective vesting date. Subject to Sections 4 and 5, with respect to the Units, the restrictions on a segment will lapse and the applicable segment will vest and become non-forfeitable on each of the [] third anniversary of the Award Date, so long as your service to Deluxe has not previously ended.

Restrictions. The Units shall be subject to the following restrictions during the Restricted Period:

- (a) The Units shall be subject to forfeiture to Deluxe until they vest as provided in this Agreement and the Plan.
- (b) The Units may not be sold, assigned, transferred or pledged during the Restricted Period. You may not transfer the right to receive the Units, other than by will or the laws of descent and distribution, and any such attempted transfer shall be void.
- (c) Shares of Common Stock to be issued in settlement of vested Units will not be issued until the applicable time specified in Section 6 or 8.
- (d) If cash or non-cash dividends or distributions are declared and paid by Deluxe with respect to its Common Stock, then at the same time that such dividends or distributions are paid to the shareholders you will have dividend equivalents credited to your account with respect to your Units. All such dividend equivalents shall be held by Deluxe without interest accruing thereon until the end of the Restricted Period, at which time Deluxe will pay you all such dividends and other distributions, less applicable income tax and social security tax withholding. Any dividend equivalent payments paid with respect to any Units shall be paid when, and only to the extent that, the underlying Units actually vest and are settled in shares of Common Stock. If the Units are forfeited, then all rights to such dividend and distribution payments shall also be forfeited.

Acceleration of Vesting.

- (a) In the event your employment with Deluxe is terminated by reason of death, Disability (as defined in the Addendum), or Approved Retirement (as defined in the Addendum) any time during the Restricted Period, all of the yet unvested Units will vest and the Units shall become non-forfeitable as of the date of such termination.
- (b) Subject to Section 4(c), in the event your employment is terminated during the Restricted Period after the first anniversary of the Award Date by reason of involuntary termination without Cause, a pro rata portion of the next segment of Units scheduled to vest after the termination date (based on the number of completed days between the termination date and the scheduled vesting date immediately prior to the

termination date (or the Award Date if there was no such scheduled vesting date) divided by 365) shall vest and become non-forfeitable as of the date of such termination.

(c) Notwithstanding any provision contained in this Agreement that would result in Units vesting in full or in part at a later date, if, in connection with any Change of Control, the acquiring Person, surviving or acquiring corporation or entity, or an Affiliate of such corporation or entity, elects to assume the obligations of Deluxe under this Agreement and to replace the Shares issuable upon settlement of the Units with other equity securities that are listed on a national securities exchange (including by use of American Depository Receipts or any similar method) and are freely transferable under all applicable federal and state securities laws and regulations ("Replacement Equity Securities"), the Units then subject to restriction shall continue to vest as set forth in Section 2, provided, however, the Units shall vest in full and become non-forfeitable if, within twelve months of the date of the Change of Control:

- (i) Your employment with the Company is terminated by the Company without Cause,
- (ii) Your employment with the Company is terminated by you for Good Reason, or
- (iii) Vesting would otherwise occur on any earlier date as provided under this Agreement.

In the event of any such Change of Control, the number of Replacement Equity Securities issuable under this Agreement shall be determined by the Committee in accordance with Section 4(c) of the Plan. In the event of any such Change of Control, all references herein to the Shares shall thereafter be deemed to refer to the Replacement Equity Securities, references to Deluxe or the Company shall thereafter be deemed to refer to the issuer of such Replacement Equity Securities, and all other terms of this Agreement shall continue in effect except as and to the extent modified by this subparagraph.

(d) If the Change of Control does not meet the continuation or replacement criteria specified in Section 4(c) above, all Units then subject to restriction shall vest in full immediately and become non-forfeitable upon the Change of Control.

(e) The provisions of this Section 4 shall be subject to Sections 5(b) and 8.

Forfeiture.

(a) Subject to the provisions of Section 4, in the event your employment is terminated during the Restricted Period, your rights to all of the unvested Units shall be immediately and irrevocably forfeited.

(b) Notwithstanding any other provisions of this Agreement, in the event you engage in a Forfeiture Activity (as defined below) during the Restricted Period, your rights to all of the Units that have not yet been settled, whether or not vested, shall be immediately and irrevocably forfeited.

(c) If, at any time within 12 months after the date any portion of this Award has vested and settled as provided in Sections 6 or 8, you engage in any Forfeiture Activity (as defined below), then the value of the Shares (and the amount of any associated dividend equivalents) received by you pursuant to such vesting and settlement must be paid to Deluxe within 30 days of demand by Deluxe. For purposes hereof, the value of the Shares received by you in settlement of the vested Units shall be determined by utilizing the closing price on the New York Stock Exchange of a share of Deluxe's Common Stock on the vesting date (without regard to any subsequent increase or decrease in the fair market value of such Shares).

(d) As used herein, you shall be deemed to have engaged in a Forfeiture Activity if you (i) directly or indirectly, use Deluxe Confidential Information, as defined below, or violate the terms of any protective agreement (including a non-compete, non-solicit, confidentiality, or similar agreement) between you and Deluxe, (ii) fail to hold in confidence or disclose, use, lecture upon, or publish any Deluxe confidential information, knowledge and data, including, but not limited to Deluxe's customer lists and information, business plans and business strategy, and trade secrets ("Confidential Information") for so long as such Confidential Information remains confidential, other than as authorized by Deluxe; or (iii) are terminated by Deluxe for Cause. Nothing in this Agreement prohibits you from disclosing Confidential Information in confidence to a government agency or to an attorney, in each case solely for the purpose of reporting or investigating a suspected violation of law, or in a complaint or other document filed in a lawsuit or other proceeding, provided such filing is made under seal.

(e) If any court of competent jurisdiction shall determine that the foregoing forfeiture provisions are invalid in any respect, the court so holding may limit such provisions in any manner which the court determines such that the provision shall be enforceable against you.

(f) By accepting this Agreement, you consent to a deduction from any amounts Deluxe owes you from time to time (including amounts owed to you as wages or other compensation, fringe benefits, or vacation pay, as well as any other amounts owed to you by Deluxe), to the extent of the amount you owe Deluxe under the foregoing provisions. Whether or not Deluxe elects to make any set-off in whole or in part, if Deluxe does not recover by means of set-off the full amount you owe, calculated as set forth above, you agree to pay immediately the unpaid balance to Deluxe.

(g) You will be released from the forfeiture provisions of Section 5(d)(i) in the event your employment with Deluxe has been involuntarily terminated without Cause. Otherwise, you may be released from the foregoing forfeiture provisions only if the Committee (or its duly appointed agent) determines in its sole discretion that such action is in the best interests of Deluxe.

(h) Nothing contained in this Section 5 shall be construed to limit the provisions of the Plan or any recoupment policy dealing with recoupment of awards, which are incorporated into this Agreement by reference.

Settlement of Units and Delivery of Shares of Common Stock.

(a) Subject to Section 5 and except as otherwise provided in Sections 6(b), 8, and 9, after any Units vest pursuant to Section 2 or Section 4, as applicable, Deluxe shall, as soon as practicable (but no later than 74 days after the applicable vesting date) cause to be issued and delivered to you (or to your personal representative or your designated beneficiary or estate in the event of your death, as applicable) one share of Common Stock in payment and settlement of each vested Unit along with any dividends or distributions referenced in Section 3(d). Delivery of shares of Common Stock shall be effected by the issuance of a stock certificate to you, by an appropriate entry in the stock register maintained by Deluxe's transfer agent with a notice of issuance provided to you, or by the electronic delivery of the shares of Common Stock to a brokerage account for your benefit, and shall be subject to the tax withholding provisions of Section 9 and compliance with all applicable legal requirements as provided in the Plan, and shall be in complete satisfaction and settlement of such vested Units. If the Units that vest include a fractional Unit, Deluxe shall round the number of vested Units to the nearest whole Unit prior to issuance of shares of Common Stock as provided herein.

(b) Notwithstanding the foregoing, in the event your employment with Deluxe is terminated by reason of death, Disability or involuntary termination without Cause any time during the Restricted Period, and if either (i) the aggregate number of vested Units under this Award is five (5) or fewer, or (ii) the aggregate value of all of your vested Units under all awards then outstanding is less than five hundred dollars (\$500), Deluxe may, in its sole discretion, deliver cash in lieu of shares of Common Stock. For purposes hereof, the cash payable in settlement of the vested Units (prior to applicable withholding under Section 9) shall be determined by utilizing the closing price on the New York Stock Exchange of a share of Deluxe's Common Stock on the settlement date under Section 6(a) or Section 8, as applicable.

Rights. The Units subject to this award do not entitle you to any rights of a holder of Common Stock. You will not have any of the rights of a shareholder of Deluxe in connection with the grant of Units subject to this Agreement unless and until shares of Common Stock are issued to you upon settlement of the Units as provided in Section 6 or 8.

409A Compliance. This Section 8 will apply only if the Award evidenced by this Agreement provides for the deferral of compensation within the meaning of Section 409A of the Internal Revenue Code and the IRS regulations thereunder ("Section 409A"). If your employment is terminated prior to the end of the Restricted Period, but the termination does not constitute a "separation from service" as defined in Section 409A, then you will have the right to receive the applicable payment described in Section 4, but such payment will be delayed until the earliest of the date on which you incur a separation from service as defined in Section 409A, the end of the Restricted Period, or if Section 4(d) is applicable, the date on which a change in control event occurs as defined in Section 409A (as described in the Addendum). This could occur if, for example, your employment is terminated but you are retained as a consultant or independent contractor to provide services to Deluxe or an Affiliate at a rate which is at least 50% of the rate at which you were providing services as an employee. It is also possible that you may incur a separation from service as defined in Section 409A even though your employment has not been terminated, for example if you become a part-time employee and are providing services at a rate that is less than 50% of the rate at which you provided services as a full-time employee. If this were to occur you would receive a payment as described in Section 4(b) calculated as if your employment had been terminated by Deluxe without Cause. The provisions of this paragraph shall also apply to the issuance of Shares to which you are entitled upon your Approved Retirement as provided in Section 4(a) if your Approved Retirement does not constitute a separation from service.

If the Change of Control described in Section 4(c) or Section 4(d) does not constitute a "change in control event" as defined in Section 409A, then your Units will become fully vested as provided therein, but settlement of the Units and issuance of the equity shall not occur until the earliest of the date on which you incur a separation from service as defined in Section 409A, the end of the Restricted Period, the date of your termination due to Disability or the date on which a change in control event as defined in Section 409A occurs

Notwithstanding any other provision of this Agreement, if you are a "specified employee" as defined in Section 409A at the time any amount would otherwise become payable to you by reason of a separation from service as defined in Section 409A (including any shares of Common Stock that become issuable upon an Approved Retirement, or upon the occurrence of a Change of Control, but the issuance of which is deferred until a separation from service because the Change of Control did not constitute a change in control event), such payment shall not occur until the first business day that is more than six months following the date of such separation from service (or, if earlier, the date of your death). In general, "specified employees" are the 50 most highly compensated officers and policy making personnel of Deluxe and its Affiliates.

Income Taxes. You are liable for any federal, state and local income taxes as well as payroll taxes applicable upon the vesting or settlement of the Units subject to this Agreement, and you acknowledge that you should consult with your own tax advisor regarding the applicable tax consequences. Upon the distribution of shares of Common Stock and payment of any associated dividend equivalents, you shall promptly pay to Deluxe the amount of all applicable taxes required by Deluxe to be withheld or collected

upon the distribution of the shares of Common Stock in settlement of the vested Units and payment of any dividend equivalents, such amount to be paid in cash or in previously acquired shares of Common Stock having a fair market value equal to the tax withholding amount. In the alternative, you may direct Deluxe to withhold from shares of Common Stock otherwise to be distributed the number of Deluxe shares having a fair market value equal to the amount of all applicable taxes required by Deluxe to be withheld upon the distribution of the shares of Common Stock, and to withhold from any dividend equivalent payments an amount equal to the applicable taxes associated therewith, and to withhold from any dividend equivalent payments an amount equal to the applicable taxes associated therewith. You acknowledge that no shares of Common Stock will be distributed to you or dividend equivalent payments made unless and until you have satisfied any obligation for withholding taxes as provided in this Agreement.

Terms and Conditions. This Agreement and the award of Units and the issuance of shares of Common Stock hereunder are subject to and governed by the provisions of the Plan. In the event there are any inconsistencies between this Agreement and the Plan, the provisions of the Plan shall govern, as it may be amended or interpreted at Deluxe's discretion, to meet any applicable requirements of Section 409A of the Internal Revenue Code.

By your acceptance of this restricted stock unit award, you agree to all of the terms and conditions contained in this Agreement and in the Plan documents. You acknowledge that you have received and reviewed these documents and that they set forth the entire agreement between you and Deluxe regarding the Units.

DELUXE CORPORATION

By: _____

ADDENDUM TO RESTRICTED STOCK UNIT AWARD AGREEMENT

For the purposes hereof, the terms used herein shall have the following meanings:

"Approved Retirement" shall mean any voluntary termination of employment that occurs on or after the date on which the sum of your age and years of employment with Deluxe and/or its Affiliates equals at least seventy-five (75) and that is approved by the Compensation Committee of the Board.

"Beneficial Owner" shall have the meaning defined in Rule 13d-3 promulgated under the Securities Exchange Act of 1934, as amended.

"Cause" shall mean (i) you have breached your obligations of confidentiality to Deluxe or its Affiliates; (ii) you have failed to perform your duties; (iii) you commit an act, or omit to take action, in bad faith which results in material detriment to Deluxe or its Affiliates or their respective businesses; (iv) you have had excessive absences unrelated to illness or vacation ("excessive" shall be defined in accordance with local employment customs); (v) you have engaged in misconduct or have otherwise violated an employment policy; (vi) you commit fraud, misappropriation, embezzlement or other act of dishonesty in connection with your job or otherwise against Deluxe, its Affiliates or their respective businesses; (vii) you have been convicted or have pleaded guilty or nolo contendere to a felony or a gross misdemeanor, which gross misdemeanor involves a breach of ethics, moral turpitude, or immoral or other conduct reflecting adversely upon the respective reputation, interests or businesses of Deluxe or its Affiliates; (viii) your engage in unlawful conduct or gross misconduct that is or is reasonably likely to be injurious to the respective business, finances, interests or reputation of Deluxe or its Affiliates; or (ix) you are in default under any agreement between you and Deluxe or any of its Affiliates.

A "Change of Control" shall be deemed to have occurred if the conditions set forth in any one of the following paragraphs shall have been satisfied:

- (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of Deluxe representing 30% or more of the combined voting power of Deluxe's then outstanding securities, excluding, at the time of their original acquisition, from the calculation of securities beneficially owned by such Person any securities acquired directly from Deluxe or its Affiliates or in connection with a transaction described in paragraph (iii) below; or
- (ii) the individuals who at the date of your award election hereunder constitute the Board and any new director (other than a director whose initial assumption of office occurs within a year of and is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of Deluxe) whose appointment or election by the Board or nomination for election by Deluxe's shareholders was approved or recommended by a vote of a majority of the directors then still in office who either were directors at the date of your award election hereunder or whose appointment, election or nomination for election was previously so approved or recommended, cease for any reason to constitute a majority thereof; or
- (iii) the shareholders of Deluxe approve a plan of complete liquidation of Deluxe or there is consummated (A) a merger, consolidation, share exchange or similar transaction involving Deluxe, regardless of whether Deluxe is the surviving corporation or (B) the sale or disposition by Deluxe of all or substantially all of Deluxe's assets, other than a sale or disposition by Deluxe of all or substantially all of Deluxe's assets to an entity, unless, immediately following such corporate transaction, all or substantially all of the individuals and entities who were the beneficial owners of Deluxe's voting securities immediately prior to such corporate transaction beneficially own, directly or indirectly, more than 50% of the combined voting power of the then outstanding voting securities of the surviving or acquiring entity resulting from such corporate transaction (including beneficial ownership through any Parent of such entity) in substantially the same proportions as their ownership, immediately prior to such corporate transaction, of Deluxe's voting securities.

Notwithstanding the foregoing, a "Change of Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of Common Stock of Deluxe immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of Deluxe immediately following such transaction or series of transactions.

"Disability" shall mean that you are suffering from a medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, and that as a result of such impairment either: (i) you have received disability benefits for a period of not less than three months under a long or short-term disability plan or policy (or both), and are eligible for benefits under the long-term disability plan of Deluxe or any Affiliate of which you are employed at

the time of such disability; or (ii) in the event that your employer does not have a long-term disability plan in effect at such time, you are unable to engage in any substantial gainful activity.

"Good Reason" shall mean:

- (i) except with your written consent given in your discretion, (a) the assignment to you of any position and/or duties which represent or otherwise entail a material diminution in your position, authority, duties or responsibilities, or (b) any other action by the Company which results in a material diminution in your position (or positions) with the Company, excluding any diminution attributable to Deluxe's bankruptcy or insolvency or to the fact that Deluxe is no longer a public company;
- (ii) any material reduction in your aggregate compensation and incentive opportunities, or any material failure by the Company to comply with any other written agreement between you and the Company;
- (iii) the Company's requiring you to be based at any location more than 50 miles from your then current location; or
- (iv) any request or requirement by the Company that you take any action or omit to take any action that is inconsistent with or in violation of the Company's ethical guidelines and policies as the same existed within the 120-day period prior to the termination date or any professional ethical guidelines or principles that may be applicable to you,

provided, however, that such events shall constitute Good Reason only if (A) within thirty (30) days following the occurrence of an event claimed to constitute Good Reason, you give Deluxe written notice of such event, (B) Deluxe fails to cure such event within thirty (30) days after receipt of such written notice, and (C) the effective date of your termination of employment is within 180 days following expiration of such cure period.

"Person" shall have the meaning defined in Section 3(a)(9) and 13(d) of the Securities Exchange Act of 1934, as amended, except that such term shall not include (i) Deluxe or any of its subsidiaries, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of Deluxe or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of Deluxe in substantially the same proportions as their ownership of Common Stock of Deluxe.

For all purposes of this Award Agreement "separation from service", "specified employee", and "change in control event" shall have the meanings set forth in Treasury Regulations §1.409A-1(h), §1.409A-1(i), and §1.409A-3(i)(5), respectively, without regard to any of the optional provisions set forth in such regulations, except that

- (i) for purposes of Treas. Reg. §1.409A-1(h)(1)(ii), an employee shall be considered to have incurred a separation from service on the date on which it is reasonably anticipated that the level of bona fide services the employee will perform after such date (whether as an employee or as an independent contractor) will permanently decrease to less than 50 percent of the average level of bona fide services performed (whether as an employee or an independent contractor) over the immediately preceding 36-month period (or the full period of services to the employer if the employee has been providing services to the employer less than 36 months); and
- (ii) for purposes of identifying specified employees the safe harbor definition of compensation contained in Treas. Reg. §1.415(c)-2(d)(4) (compensation required to be reported on Form W-2 plus elective deferrals) shall be used, and compensation paid to a nonresident alien that is not effectively connected with the conduct of a trade or business within the United States shall be excluded.

DELUXE CORPORATION

PERFORMANCE SHARE UNIT AWARD AGREEMENT [Performance Metric] (US)

AWARDED TO	AWARD DATE	TARGET NUMBER OF SHARES

1. **The Award.** Deluxe Corporation, a Minnesota corporation ("Deluxe"), hereby grants to you as of the above Award Date the right to receive shares of Deluxe common stock, par value \$1.00 per share (the "Shares"), in an amount initially equal to the Target Number of Shares specified above (the "Target Award") on the terms and conditions contained in this Performance Share Unit Award Agreement (including the Addendum and Schedules attached hereto, this "Agreement") and Deluxe's 2022 Stock Incentive Plan (the "Plan"), a copy of which has been provided to you. Any capitalized term used but not defined in this Agreement shall have the meaning given to the term in the Plan as it currently exists or may hereafter be amended. The number of Shares that may actually be earned and become eligible to vest pursuant to this Agreement can be between 0% and 200% of the Target Number of Shares, but may not exceed 200% of the Target Number of Shares.
2. **Performance Period.** The performance period for purposes of determining whether and to what extent Shares will be issued under a Performance Award (as defined below) shall be the three-year period commencing on January 1 of the year in which this Award was granted (the "Performance Period").
3. **Performance Goals.** The performance goals for purposes of determining whether and to what extent Shares will be issued under a Performance Award are set forth in the attached Performance Goals Schedule.
4. **Vesting.** Vesting of the Target Award shall occur if and to the extent that performance goals are achieved, as set forth in the attached Performance Goals Schedule and as determined and certified by the Committee in accordance with the Plan after the end of the Performance Period. The number of Shares that vest, if any, may be adjusted by the Committee to the extent permitted by this Agreement and the Plan. The final vested award certified by the Committee is referred to as the "Performance Award."
5. **Distribution.** Any Shares to be distributed under this Agreement shall be distributed as soon as administratively practicable after certification of a Performance Award by the Compensation Committee, but no later than two and one-half months following the end of the Performance Period for which such certification occurred. The Committee may, in its sole discretion, elect to pay you the value of all or any portion of the Performance Award in cash, based upon the closing price of a Share on the business day immediately prior to the date of vesting. The Shares distributed to you under this Section, Section 7 or Section 8 are referred to, collectively, as the "Distributed Shares."
6. **Restrictions.** Your rights in any Shares covered by this Agreement shall be subject to the following restrictions during and after the Performance Period:
 - (a) All Distributed Shares shall be subject to forfeiture to Deluxe as provided in this Agreement and the Plan.
 - (b) Until any Shares are distributed to you under Section 5, neither you nor anyone claiming through you shall have any rights as a shareholder under this Agreement, including the right to vote or to receive dividends, stock dividends or other non-cash distributions.
 - (c) You may not transfer, sell, assign, or pledge the right to receive the Shares, other than by will or the laws of descent and distribution, or as otherwise permitted by the Committee pursuant to the Plan, and any such attempted transfer shall be void.
7. **Termination of Employment.** Except as described in this Section or in Section 8, in the event your employment is terminated prior to the payment of the Performance Award, this Agreement and your rights to receive the Performance Award shall be immediately and irrevocably forfeited, unless your termination occurs on or after the one year anniversary of commencement of the Performance Period and is by reason of (a) involuntary termination without Cause, (b) resignation for Good Reason within 12 months of the consummation of a Change of Control, (c) death, (d) Disability, or (e) Approved Retirement (as those capitalized terms are defined in the Addendum to this Agreement).
 In the event your employment is terminated on or after the one year anniversary of commencement of the Performance Period and prior to the end of the Performance Period for any of the reasons (a) through (e) in the first paragraph of this Section, you or your estate shall be entitled to receive a pro-rata distribution (calculated based on the days elapsed in the Performance Period prior to the employment termination date divided by the total days in the Performance Period) of the Performance Award determined by the Committee, in its sole discretion, upon completion of the Performance Period to be paid based on the attached Performance Goals Schedule. In the event your employment is terminated for any of the reasons (a) through (e) in the first paragraph of this Section after completion of the Performance Period but prior to certification and distribution of the Performance Award, you or your estate shall be entitled to receive the Performance Award determined by the Committee upon completion of the Performance Period to be distributed, in its sole discretion, based on the attached Performance Goals Schedule. Such distribution will be made at the same time that distributions are made to active employees.
8. **Change of Control.** If, in connection with any Change of Control, the acquiring Person, surviving or acquiring corporation or entity, or any Affiliate of such corporation or entity, elects to assume or continue the obligations of Deluxe under this Agreement and to replace the Shares issuable under it with Equivalent Replacement Securities, then all references herein to Shares shall thereafter be deemed to refer to the Equivalent Replacement Securities issuable upon attainment of Performance Goals, references to Deluxe shall thereafter be deemed to refer to the issuer of such Equivalent Replacement Securities, and all other terms of this Agreement shall continue in effect except as to the extent modified by this Section 8.

If the Change of Control does not meet the assumption, continuation or replacement criteria specified in this Section 8, then the value of the Target Award shall be calculated based upon the value of a Share as of the closing price on the business day immediately prior to the effective date of the Change of Control and that amount shall become due and payable in cash, immediately upon the Change of Control. Nothing contained herein shall limit the authority of the Committee under Section 4(c) of the Plan to make adjustments to the Shares subject to this Agreement in the case of a transaction described in Section 4(c) of the Plan that does not constitute a Change of Control.

9. **Income Taxes.** You are liable for any federal and state income or other taxes applicable upon the distribution to you of any Shares or other payments under this Agreement, and you acknowledge that you should consult with your own tax advisor regarding the applicable tax consequences. Upon the distribution of Shares, you shall promptly pay to Deluxe in cash, or in previously acquired shares of Deluxe common stock having a fair market value equal to the amount of all applicable taxes required by Deluxe to be withheld or collected upon the distribution of the Shares. In the alternative, prior to the end of the Performance Period, you may direct Deluxe to withhold from Shares otherwise to be distributed the number of Shares having a fair market value equal to the amount of all applicable taxes required by Deluxe to be withheld upon the distribution of the Shares. You acknowledge that no Shares will be distributed to you, notwithstanding any Performance Award, unless and until you have satisfied any obligation for withholding taxes as provided in this Agreement.

10. **Forfeiture of Award and Award Gain Resulting from Certain Activities.**

(a) If, at any time during the period commencing on the first day of the Performance Period and ending 12 months after the date that you have received a Performance Award, you engage in any Forfeiture Activity (as defined below) then, in addition to any other rights Deluxe or its Affiliates may have against you, (i) your rights under this Agreement shall immediately terminate effective as of the date any such activity first occurred, and (ii) the value of any Distributed Shares or cash paid to you pursuant to this Agreement must be paid to Deluxe within 30 days of demand by Deluxe. For purposes hereof, any such value shall be determined by multiplying the number of Distributed Shares by the higher of the closing price of a Share on the business day prior to the date of vesting or the closing price on the business day prior to the date of repayment or, to the extent the Performance Award was paid to you in cash, including any payment pursuant to the penultimate paragraph of Section 8, the amount of cash paid to you or on your behalf. The amount repaid shall not be reduced by any tax withholding, whether paid in Shares or cash.

(b) As used herein, you shall be deemed to have engaged in a Forfeiture Activity if, in violation of any Company policy or other term or condition of your employment, you (i) directly or indirectly, use Deluxe Confidential Information, as defined below, or violate the terms of any protective agreement (including a non-compete, non-solicit, confidentiality, or similar agreement) between you and Deluxe, (ii) fail to hold in confidence or disclose, use, lecture upon, or publish any Deluxe confidential information, knowledge and data, including, but not limited to Deluxe's customer lists and information, business plans and business strategy, and trade secrets ("Confidential Information") for so long as such Confidential Information remains confidential, other than as authorized by Deluxe; or (iii) are terminated by Deluxe for Cause. Nothing in this Agreement prohibits you from disclosing Confidential Information in confidence to a government agency or to an attorney, in each case solely for the purpose of reporting or investigating a suspected violation of law, or in a complaint or other document filed in a lawsuit or other proceeding, provided such filing is made under seal.

(c) If any court of competent jurisdiction shall determine that the foregoing forfeiture provisions are invalid in any respect, the court so holding may limit such provisions in any manner which the court determines, such that the provisions, as so limited, shall be enforceable against you.

(d) By accepting this Agreement, you consent to a deduction from any amounts the Company owes you from time to time (including amounts owed to you as wages or other compensation, fringe benefits, or vacation pay, as well as any other amounts owed to you by the Company), to the extent of the amounts you owe the Company under the foregoing provisions. Whether or not the Company elects to make any set-off in whole or in part, if the Company does not recover by means of set-off the full amount you owe, calculated as set forth above, you agree to pay immediately the unpaid balance to the Company.

(e) You will be released from the forfeiture provisions of subparagraph (b)(i) in the event your employment with the Company has been involuntarily terminated without Cause or you voluntarily terminate your employment with the Company for Good Reason. Otherwise, you may be released from the foregoing forfeiture provisions only if the Committee (or its duly appointed agent) determines in its sole discretion that such action is in the best interests of Company.

(f) Nothing contained in this Section shall be construed to limit the provisions of the Plan or any recoupment policy dealing with recoupment of awards, which are incorporated into this Agreement by this reference.

11. **Terms and Conditions.** This Agreement does not guarantee your continued employment or alter the right of Deluxe or its Affiliates to terminate your employment at any time. This Award is granted pursuant to the Plan and is subject to its terms. In the event of any conflict between the provisions of this Agreement and the Plan, the provisions of the Plan shall govern.

By your acceptance of this performance share award, you agree to all of the terms and conditions contained in this Agreement and in the Plan document. You acknowledge that you have received and reviewed these documents and that they set forth the entire agreement between you and Deluxe regarding your right to the Shares pursuant to this Award Agreement.

DELUXE CORPORATION

By: _____

ADDENDUM TO PERFORMANCE SHARE AWARD AGREEMENT

For the purposes hereof the terms used herein shall have the following meanings:

"Approved Retirement" shall mean any voluntary termination of employment that occurs on or after the date on which the sum of your age and years of employment with Deluxe and/or its Affiliates equals at least seventy-five (75) and that is approved by the Compensation Committee of the Board.

"Board" means the Board of Directors of the Company.

"Cause" shall mean (i) you have breached your obligations of confidentiality to Deluxe or its Affiliates; (ii) you have failed to perform your duties; (iii) you commit an act, or omit to take action, in bad faith which results in material detriment to Deluxe or its Affiliates or their respective businesses; (iv) you have had excessive absences unrelated to illness or vacation ("excessive" shall be defined in accordance with local employment customs); (v) you have engaged in misconduct or have otherwise violated an employment policy; (vi) you commit fraud, misappropriation, embezzlement or other act of dishonesty in connection with your job or otherwise against Deluxe, its Affiliates or their respective businesses; (vii) you have been convicted or have pleaded guilty or nolo contendere to a felony or a gross misdemeanor, which gross misdemeanor involves a breach of ethics, moral turpitude, or immoral or other conduct reflecting adversely upon the respective reputation, interests or businesses of Deluxe or its Affiliates; (viii) your engage in unlawful conduct or gross misconduct that is or is reasonably likely to be injurious to the respective business, finances, interests or reputation of Deluxe or its Affiliates; or (ix) you are in default under any agreement between you and Deluxe or any of its Affiliates.

A "Change of Control" shall be deemed to have occurred if the conditions set forth in any one of the following paragraphs shall have been satisfied:

- (i) any Person becomes the Beneficial Owner, directly or indirectly, of securities of Deluxe representing 30% or more of the combined voting power of Deluxe's then outstanding securities, excluding, at the time of their original acquisition, from the calculation of securities beneficially owned by such Person any securities acquired directly from Deluxe or its Affiliates or in connection with a transaction described in paragraph (iii) below; or
- (ii) the individuals who at the date of your award election hereunder constitute the Board and any new director (other than a director whose initial assumption of office occurs within a year of and is in connection with an actual or threatened election contest, including but not limited to a consent solicitation, relating to the election of directors of Deluxe) whose appointment or election by the Board or nomination for election by Deluxe's shareholders was approved or recommended by a vote of a majority of the directors then still in office who either were directors at the date of your award election hereunder or whose appointment, election or nomination for election was previously so approved or recommended, cease for any reason to constitute a majority thereof; or
- (iii) the shareholders of Deluxe approve a plan of complete liquidation of Deluxe or there is consummated (A) a merger, consolidation, share exchange or similar transaction involving Deluxe, regardless of whether Deluxe is the surviving corporation or (B) the sale or disposition by Deluxe of all or substantially all Deluxe's assets, other than a sale or disposition by Deluxe of all or substantially all of Deluxe's assets to an entity, unless, immediately following such corporate transaction, all or substantially all of the individuals and entities who were the beneficial owners of Deluxe's voting securities immediately prior to such corporate transaction beneficially own, directly or indirectly, more than 50% of the combined voting power of the then outstanding voting securities of the surviving or acquiring entity resulting from such corporate transaction (including beneficial ownership through any parent of such entity) in substantially the same proportions as their ownership, immediately prior to such corporate transaction, of Deluxe's voting securities.

Notwithstanding the foregoing, a "Change of Control" shall not be deemed to have occurred by virtue of the consummation of any transaction or series of integrated transactions immediately following which the record holders of Common Stock of Deluxe immediately prior to such transaction or series of transactions continue to have substantially the same proportionate ownership in an entity which owns all or substantially all of the assets of Deluxe immediately following such transaction or series of transactions.

"Company" shall mean Deluxe (including any successor corporation) and its Affiliates.

"Disability" shall mean that you are suffering from a medically determinable physical or mental impairment that can be expected to result in death or can be expected to last for a continuous period of not less than twelve months, and that as a result of such impairment either: (i) you have received disability benefits for a period of not less than three months under a long or short-term disability plan or policy (or both), and are eligible for benefits under the long-term disability plan of Deluxe or any Affiliate of which you are employed at the time of such disability; or (ii) in the event that your employer does not have a long-term disability plan in effect at such time, you are unable to engage in any substantial gainful activity.

"Equivalent Replacement Securities" shall mean other equity securities that are listed on a national securities exchange (including by use of American Depository Receipts or any similar method) and are freely transferable under all applicable federal and state securities laws and regulations, the quantity of which shall be determined by the Committee in accordance with Section 4(c) of the Plan.

"Good Reason" shall mean:

- (i) except with your written consent given in your discretion, (a) the assignment to you of any position and/or duties which represent or otherwise entail a material diminution in your position, authority, duties or responsibilities, or (b) any other action by the Company which results in a material diminution in your position (or positions) with the Company, excluding any diminution attributable to Deluxe's bankruptcy or insolvency or to the fact that Deluxe is no longer a public company;
 - (ii) any material reduction in your aggregate compensation and incentive opportunities, or any material failure by the Company to comply with any other written agreement between you and the Company;
 - (iii) the Company's requiring you to be based at any location more than 50 miles from your then current location; or
 - (iv) any request or requirement by the Company that you take any action or omit to take any action that is inconsistent with or in violation of the Company's ethical guidelines and policies as the same existed within the 120-day period prior to the termination date or any professional ethical guidelines or principles that may be applicable to you,
-

provided, however, that such events shall constitute Good Reason only if (A) within thirty (30) days following the occurrence of an event claimed to constitute Good Reason, you give Deluxe written notice of such event, (B) Deluxe fails to cure such event within thirty (30) days after receipt of such written notice, and (C) the effective date of your termination of employment is within 180 days following expiration of such cure period.

"Person" shall have the meaning defined in Sections 3(a)(9) and 13(d) of the Securities Exchange Act of 1934, as amended, except that such term shall not include (i) Deluxe or any of its Affiliates, (ii) a trustee or other fiduciary holding securities under an employee benefit plan of Deluxe or any of its Affiliates, (iii) an underwriter temporarily holding securities pursuant to an offering of such securities, or (iv) a corporation owned, directly or indirectly, by the shareholders of Deluxe in substantially the same proportions as their ownership of stock of Deluxe.

DELUXE CORPORATION SUBSIDIARIES

1STPAYGATEWAY, LLC (Delaware)
Accelerated Card Company, LLC (Delaware)
Canada IATS Payments, Inc. (Canada)
ChecksByDeluxe.com, LLC (Minnesota)
Datamyx LLC (Delaware)
Direct Checks Unlimited Sales, Inc. (Colorado)
DeluxeCorp India Private Limited (India)
Deluxe Business Operations, Inc. (Delaware)
Deluxe Enterprise Operations, LLC (Minnesota)
Deluxe Financial Services, LLC (Minnesota)
Deluxe Manufacturing Operations, LLC (Minnesota)
Deluxe Receivables, LLC (Delaware)
Deluxe Small Business Sales, Inc. (Minnesota)
Eliot Management Group, LLC (Utah)
FAPS Holdings, Inc. (Delaware)
Financial Transactions, LLC (Delaware)
First American Payment Systems, L.P. (Texas)
First Manhattan Consulting Group, LLC (Delaware)
Fitech Payments, LLC (Delaware)
goEmerchant, LLC (Delaware)
Govolution, LLC (Delaware)
IATS, LLC (Delaware)
MedPayExchange, LLC (Delaware)
MyCorporation Business Services, Inc. (Minnesota)
NEBS Business Products Limited (Canada)
Payce, Inc. (Maryland)
Quick Processing, LLC (Delaware)
REMITCO LLC (Delaware)
Research Development and Manufacturing Corporation (Canada)
Safeguard Acquisitions, Inc. (Texas)
Safeguard Business Systems, Inc. (Delaware)
Safeguard Business Systems Limited (Canada)
Safeguard Franchise Sales, Inc. (Texas)
Safeguard Franchise Systems, Inc. (Texas)
Safeguard Holdings, Inc. (Texas)
Think Point Financial, LLC (Delaware)
Wausau Delaware, LLC (Delaware)
Wausau Financial Systems, Inc. (Wisconsin)

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-264954) and Form S-8 (Nos. 333-95739, 333-52452, 333-52454, 333-89532, 333-150674, 333-181435, 333-223180, 333-238105, 333-264956, 333-266572 and 333-271783) of Deluxe Corporation of our report dated February 22, 2024 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP
Minneapolis, Minnesota
February 22, 2024

CEO CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, Barry C. McCarthy, President and Chief Executive Officer of Deluxe Corporation, certify that:

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

Date: February 22, 2024

/s/ Barry C. McCarthy

Barry C. McCarthy
President and Chief Executive Officer

CFO CERTIFICATION OF PERIODIC REPORT UNDER SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002

I, William C. Zint, Chief Financial Officer of Deluxe Corporation, certify that:

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

Date: February 22, 2024

/s/ William C. Zint

William C. Zint

Senior Vice President, Chief Financial Officer

CEO AND CFO CERTIFICATION OF PERIODIC REPORT

We, Barry C. McCarthy, President and Chief Executive Officer of Deluxe Corporation (the "Company"), and William C. Zint, Chief Financial Officer of the Company, certify, pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, 18 U.S.C. Section 1350, that:

- (1) the Annual Report on Form 10-K of the Company for the year ended December 31, 2023 (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m or 78o(d)); and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: February 22, 2024

/s/ Barry C. McCarthy

Barry C. McCarthy
President and Chief Executive Officer

/s/ William C. Zint

William C. Zint
Senior Vice President, Chief Financial Officer

DELUXE CORPORATION
INCENTIVE COMPENSATION RECOVERY POLICY

The Compensation and Talent Committee (the “Committee”) of the Board of Directors (the “Board”) of Deluxe Corporation (the “Company”) has adopted the following Incentive Compensation Recovery Policy (this “Policy”), which replaces and supersedes the previously adopted version of this Policy subject to Section 9 below, on August 15, 2023, effective as of October 2, 2023 (the “Effective Date”).

1. Purpose. The purpose of this Policy is to (i) provide for the recoupment of certain incentive compensation pursuant to Section 954 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, in the manner required by Section 10D of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), Rule 10D-1 promulgated thereunder, and the Applicable Listing Standards (as defined below) (collectively, the “Dodd-Frank Rules”) and (ii) provide the Company with a supplemental recoupment right in the event of a Covered Executive’s Detrimental Conduct.

2. Administration. This Policy shall be administered by the Committee. Any determinations made by the Committee shall be final and binding on all affected individuals.

3. Definitions. For purposes of this Policy, the following capitalized terms shall have the meanings set forth below.

(a) “**Accounting Restatement**” shall mean an accounting restatement of the Company’s financial statements due to the material noncompliance of the Company with any financial reporting requirement under the securities laws, including any required accounting restatement (i) to correct an error in previously issued financial statements that is material to the previously issued financial statements (*i.e.*, a “Big R” restatement), or (ii) that would result in a material misstatement if the error were corrected in the current period or left uncorrected in the current period (*i.e.*, a “little r” restatement).

(b) “**Applicable Exchange**” shall mean the New York Stock Exchange.

(c) “**Applicable Listing Standards**” shall mean Section 303A.14 of the New York Stock Exchange Listed Company Manual.

(d) “**Clawback Eligible Incentive Compensation**” shall mean Incentive-Based Compensation Received by a Covered Executive (i) on or after the Effective Date, (ii) after beginning service as a Covered Executive, (iii) if such individual served as a Covered Executive at any time during the performance period for such Incentive-Based Compensation (irrespective of whether such individual continued to serve as a Covered Executive upon or following the Restatement Trigger Date), (iv) while the Company has a class of securities listed on a national securities exchange or a national securities association, and (v) during the applicable Clawback Period. For the avoidance of doubt, Incentive-Based Compensation Received by a Covered Executive on or after the Effective Date could, by the terms of this Policy, include amounts approved, awarded, or granted prior to such date.

(e) “**Clawback Period**” shall mean the three completed fiscal years immediately preceding the date that the issuer is required to prepare an Accounting Restatement.

(f) “**Company Group**” shall mean the Company and its subsidiaries.

(g) “**Covered Executive**” shall mean any current or former “executive officer” of the Company as defined under the Dodd-Frank Rules and, for the avoidance of doubt, includes each individual identified as an executive officer of the Company in accordance with Item 401(b) of Regulation S-K under the Exchange Act.

(h) “**Detrimental Conduct**” shall mean any of the following in relation to the Covered Executive:

(i) the deliberate and continued failure to substantially perform the Covered Executive’s duties and responsibilities which failure has an adverse effect on the Company;

(ii) the knowing and willful violation of any law, government regulation, the Company Code of Conduct or Company policy;

(iii) the act of fraud or dishonesty resulting or intended to result in personal enrichment at the expense of the Company;

(iv) gross misconduct in performance of duties that results in economic harm to the Company.

(i) “**Erroneously Awarded Compensation**” shall mean, in the event of an Accounting Restatement, the amount of Clawback Eligible Incentive Compensation that exceeds the amount of Incentive-Based Compensation that otherwise would have been Received had it been determined based on the restated amounts, computed without regard to any taxes paid.

(j) “**Financial Reporting Measures**” shall mean measures that are determined and presented in accordance with the accounting principles used in preparing the Company’s financial statements, and all other measures that are derived wholly or in part from such measures. Stock price and total shareholder return (and any measures that are derived wholly or in part from stock price or total shareholder return) shall for purposes of this Policy be considered Financial Reporting Measures. For the avoidance of doubt, a measure need not be presented in the Company’s financial statements or included in a filing with the U.S. Securities and Exchange Commission (the “SEC”) in order to be considered a Financial Reporting Measure.

(k) “**Incentive-Based Compensation**” shall mean any compensation from the Company Group that is granted, earned or vested based wholly or in part upon the attainment of a Financial Reporting Measure.

(l) “**Received**” shall mean the deemed receipt of Incentive-Based Compensation. Incentive-Based Compensation shall be deemed received for this purpose in the Company’s fiscal period during which the Financial Reporting Measure specified in the applicable Incentive-Based Compensation award is attained, even if payment or grant of the Incentive-Based Compensation occurs after the end of that period.

(m) “**Restatement Trigger Date**” shall mean the earlier to occur of (i) the date the Board, a committee of the Board, or the officer(s) of the Company authorized to take such action if Board action is not required, concludes, or reasonably should have concluded, that the Company is required to prepare an Accounting Restatement, or (ii) the date a court, regulator or other legally authorized body directs the Company to prepare an Accounting Restatement.

4. Recoupment of Erroneously Awarded Compensation in the Event of an Accounting Restatement. Upon the occurrence of a Restatement Trigger Date, the Company shall recoup Erroneously Awarded Compensation reasonably promptly, in the manner described below.

(a) **Process.** The Committee shall use the following process for recoupment:

(i) First, the Committee will determine the amount of any Erroneously Awarded Compensation for each Covered Executive in connection with such Accounting Restatement. For Incentive-Based Compensation based on (or derived from) stock price or total shareholder return where the amount of Erroneously Awarded Compensation is not subject to mathematical recalculation directly from the information in the applicable Accounting Restatement, the amount shall be determined by the Committee based on a reasonable estimate of the effect of the Accounting Restatement on the stock price or total shareholder return upon which the Incentive-Based Compensation was Received (in which case, the Company shall maintain documentation of such determination of that reasonable estimate and provide such documentation to the Applicable Exchange).

(ii) Second, the Committee will provide each affected Covered Executive with a written notice stating the amount of the Erroneously Awarded Compensation, a demand for recoupment, and the means of recoupment that the Company will accept.

(b) **Means of Recoupment.** The Committee shall have discretion to determine the appropriate means of recoupment of Erroneously Awarded Compensation, which may include without limitation: (i) recoupment of cash or shares of Company stock, (ii) forfeiture of unvested cash or equity awards (including those subject to service-based and/or performance-based vesting conditions), (iii) cancellation of outstanding vested cash or equity awards (including those for which service-based and/or performance-based vesting conditions have been satisfied), (iv) to the extent consistent with Section 409A of the Internal Revenue Code of 1986, as amended (“Section 409A”), offset of other amounts owed to the Covered Executive or forfeiture of deferred compensation, (v) reduction of future compensation, and (vi) any other remedial or recovery action permitted by law. Notwithstanding the foregoing, the Company Group makes no guarantee as to the treatment of such amounts under Section 409A, and shall have no liability with respect thereto. For the avoidance of doubt, appropriate means of recoupment may include amounts approved, awarded, or granted prior to the Effective Date. Except as set forth in Section 4(d) below, in no event may the Company Group accept an amount that is less than the amount of Erroneously Awarded Compensation in satisfaction of a Covered Executive’s obligations hereunder.

(c) **Failure to Repay.** To the extent that a Covered Executive fails to repay all Erroneously Awarded Compensation to the Company Group when due (as determined in accordance with Section 4(a) above), the Company shall, or shall cause one or more other members of the Company Group to, take all actions reasonable and appropriate to recoup such Erroneously Awarded Compensation from the applicable Covered Executive. The applicable Covered Executive may, in the Committee’s discretion, be required to reimburse the Company Group for any and all expenses reasonably incurred (including legal fees) by the Company Group in recouping such Erroneously Awarded Compensation, and, in the event the Committee exercises such discretion, the applicable Covered Executives shall reimburse the Company Group for any and all expenses reasonably incurred, as described above.

(d) **Exceptions.** Notwithstanding anything herein to the contrary, the Company shall not be required to recoup Erroneously Awarded Compensation if one of the following conditions is met and the Committee determines that recoupment would be impracticable:

(i) The direct expense paid to a third party to assist in enforcing this Policy against a Covered Executive would exceed the amount to be recouped, after the Company has made a reasonable attempt to recoup the applicable Erroneously Awarded Compensation, documented such attempts, and provided such documentation to the Applicable Exchange;

(ii) Recoupment would violate home country law where that law was adopted prior to November 28, 2022, provided that, before determining that it would be impracticable to recoup any amount of Erroneously Awarded Compensation based on violation of home country law, the Company has obtained an opinion of home country counsel, acceptable to the Applicable Exchange, that recoupment would result in such a violation and a copy of the opinion is provided to the Applicable Exchange; or

(iii) Recoupment would likely cause an otherwise tax-qualified retirement plan, under which benefits are broadly available to employees, to fail to meet the requirements of 26 U.S.C. 401(a)(13) or 26 U.S.C. 411(a) and regulations thereunder.

(e) **Reporting and Disclosure.** The Company shall file all disclosures with respect to Section 4 of this Policy that are required by the Dodd-Frank Rules.

5. Recoupment of Incentive-Based Compensation in the Event of Detrimental Conduct. In the event the Committee makes a good faith determination that a Covered Executive has engaged in Detrimental Conduct, then the Company may be required to recoup from the Covered Executive all or a portion of the Incentive-Based Compensation earned, awarded or paid to the Covered Executive and any other equity, including, but not limited to, time-based awards, or cash-based incentive compensation earned by or awarded to the Covered Executive. The Committee will determine in its sole discretion, on a case by case basis, whether or not to recoup such amounts in the event of a Covered Executive's Detrimental Conduct, and the appropriate means and timing of any recoupment including, without limitation, any means of recoupment described in Section 4(b). This Section 5 provides for a supplemental recoupment right that is not mandated by the Dodd-Frank rules, and accordingly, the requirements of the Dodd-Frank Rules (including without limitation, the disclosure requirements) shall not apply to this Section 5.

6. Indemnification Prohibition. No member of the Company Group shall be permitted to indemnify any current or former Covered Executive against (i) the loss of any compensation, award or benefit that is recouped pursuant to the terms of this Policy, or (ii) any claims relating to the Company Group's enforcement of its rights under this Policy. The Company may not pay or reimburse any Covered Executive for the cost of third-party insurance purchased by a Covered Executive to fund potential recoupment obligations under this Policy.

7. Interpretation. The Committee is authorized to interpret and construe this Policy and to make all determinations necessary, appropriate, or advisable for the administration of this Policy. The Committee intends that Section 4 and Section 6 of this Policy be interpreted consistent with the Dodd-Frank Rules.

8. Amendment; Termination. The Committee may amend or terminate this Policy from time to time in its discretion, including as and when it determines that it is legally required to do so by any federal securities laws, SEC rule or the rules of any national securities exchange or national securities association on which the Company's securities are listed.

9. Other Recoupment Rights. The Committee intends that this Policy be applied to the fullest extent of the law. The Committee may require that any employment agreement, equity award, cash incentive award, or any other agreement entered into be conditioned upon the Covered

Executive's agreement to abide by the terms of this Policy. Notwithstanding the foregoing, this Policy only replaces and supersedes the Company's previous Incentive Compensation Recovery Policy dated August 29, 2020, with respect to all Incentive-Based Compensation Received on or after the Effective Date. Such previous policy remains in effect for all compensation received prior to the Effective Date. Any right of recoupment under this Policy is in addition to, and not in lieu of, any other remedies or rights of recoupment that may be available to the Company Group, whether arising under applicable law, regulation or rule, pursuant to the terms of any other policy of the Company Group, pursuant to any employment agreement, equity award, cash incentive award, or other agreement applicable to a Covered Executive, or otherwise (the "Separate Clawback Rights"). Notwithstanding the foregoing, there shall be no duplication of recovery of the same compensation under this Policy and the Separate Clawback Rights, unless required by applicable law.

10. Successors. This Policy shall be binding and enforceable against all Covered Executives and their beneficiaries, heirs, executors, administrators or other legal representatives.